**THE NIGERIAN AGRICULTURAL CREDIT GUARANTEE SCHEME FUND (ACGSF) AND THE GROWTH OF THE AGRICULTURAL SECTOR**

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**Abstract**

This study investigated the impact of loans guaranteed by the Agricultural Credit Guarantee Scheme Fund (ACGSF) on agricultural growth in Nigeria. The research addressed a significant gap in the literature by examining the joint and multiplicative relationship between loans guaranteed for livestock farming, fishery farming, mixed crop farming, food crop farming, and cash crop farming, and their influence on agricultural growth. A multiple regression analysis was conducted using data on agricultural growth measured by Agriculture, value added (% of GDP) and loans guaranteed by ACGSF for various farming activities. The findings reveal that the combination of loans guaranteed by ACGSF for livestock farming, fishery farming, mixed crop farming, food crop farming, and cash crop farming explains 71.2% of the variation in agricultural growth, and the F-statistics demonstrated a statistically significant joint and multiplicative relationship among the independent variables (p < 0.05). Based on the results, it can be concluded that the loans guaranteed by ACGSF have a significant effect on agricultural growth in Nigeria. Hence, the study recommends the continued provision of loans guaranteed by ACGSF for various farming activities, streamlining loan application processes, ensuring timely disbursement of funds, and enhancing coordination among relevant stakeholders. These measures can improve access to credit, enhance productivity, and promote agricultural growth. Continuous monitoring and evaluation of the credit scheme's impact are also recommended to identify and address any challenges in its implementation.

**Keywords:** Agriculture credit, ACGSF, Agricultural growth, Nigeria

**1.0 INTRODUCTION**

Agriculture, encompassing the cultivation of land, animal rearing, and the processing and marketing of crops, plays a crucial role in Nigeria's economy. It serves as the backbone of the country, providing food, employment, raw materials, and foreign exchange earnings for industrial growth (Adeyemi et al., 2022; Chinasa et al., 2022; Mesike, 2012). Despite efforts towards industrialization, the agricultural sector remains fundamental to Nigeria's economic development. Agricultural farming, which involves the production of food and other essential products, has been a driving force behind the advancement of human civilization (Leakey et al. 2022). The history of agriculture spans thousands of years and has been shaped by various cultures, technologies, and climates. In Nigeria, agriculture has contributed significantly to the economy by generating employment opportunities, reducing inequality, alleviating poverty, and contributing to foreign exchange earnings (Mesike, 2012).

Nigeria, being one of the largest countries in Africa with a vast land area and a considerable population, relies on the Agricultural Credit Guarantee Scheme Fund (ACGSF) as a vital catalyst for agricultural growth and employment. The ACGSF is a program established by the Federal Government of Nigeria to stimulate agricultural production, eradicate poverty, and provide foreign exchange for the country (CBN ACGSF Manual, 2006). However, despite the importance of agricultural credit in facilitating access to inputs and enhancing productivity, the sector has faced numerous challenges. Limited access to credit facilities has hindered the growth and productivity of Nigerian farmers, particularly small-scale farmers (Orok et al., 2010). Furthermore, the agricultural credit system has encountered problems related to farmers, bankers, and structural issues (Osabohien, 2020). These problems have had a detrimental impact on agricultural growth, productivity, and overall economic development.

Given the gaps and challenges in previous studies, it is essential to address the impact of ACGSF loans on different agricultural sectors, such as livestock farming, fishery farming, mixed crop farming, food crop farming, and cash crop farming. Previous research has mainly focused on the impact of ACGSF on overall agricultural productivity or specific sectors, neglecting the diverse agricultural landscape of Nigeria (Egwu, 2016; Dare et al., 2017; Nwosu et al., 2019). Therefore, this study aims to fill these gaps by examining the influence of ACGSF loans on various agricultural sectors, contributing to a comprehensive understanding of the role of credit guarantee schemes in agricultural development.

**2.0 LITERATURE REVIEW**

Agricultural growth is crucial for poverty reduction, food security, education, health, income increase, and employment generation (Osabohien et al., 2019; Mensah 2023; Wudil et al., 2023) . Orok et al. (2010) emphasized that agricultural growth depends on the increased use of agricultural inputs, technological change, and technical efficiency. The adoption of new technology and the optimal use of inputs require funds available to farmers. Oboh et al., (2016), opined that agriculture has been a driving force in non-oil growth in Nigeria and plays a significant role in employment and poverty reduction. However, concerns about the sustainability of the current growth rate and the declining productivity of certain crops have been raised (Wudil et al., 2023; Etuk et al., 2021; Oboh et al., 2016).

Livestock farming is important for the rural economy, providing food, fuel, fertilizer, draught power, and supplementary income for rural farm households (Bahiru 2023). Livestock-keeping serves as a means of production and capital accumulation for the rural poor, contributing to financial and food security. However, access to formal credit for livestock development is limited compared to crop production inputs (Victor et al., 2019). The inclusion of financial services in livestock distribution, input purchase, and small livestock-related facilities can enhance productivity and contribute to poverty reduction (Adeyemi et al., 2022). Fishery farming faces challenges due to limited access to institutional credit, resulting in declining productivity and high importation rates (Oparinde et al., 2017). Non-institutional credit sources, such as fish merchants and money lenders, offer limited and costly credit options. The lack of institutional credit has contributed to the segmentation of rural financial markets, hindering the growth of the small-scale fisheries sector. Increasing domestic fish production is crucial for job creation, poverty reduction, and improving the balance of payments in Nigeria (Ezu., 2023).

Mixed crop farming, or inter-cropping, involves planting multiple crops simultaneously in the same field. While the recent increase in agricultural growth may have been driven by primary crops, the productivity of most crops has remained stagnant or declined. Onwumere et al. (2012) found that the ACGSF had a positive and significant impact on crop production, livestock, fisheries, and overall agricultural productivity in Nigeria. Food crops play a vital role in food production in Nigeria, but limited access to credit has hindered farmers from expanding their businesses and adopting mechanized farming (Mizik, 2023). Informal credit associations have become prevalent due to the scarcity and restricted sources of funds. Ambali et al. (2012) found that loan beneficiaries sometimes diverted funds meant for farming to other uses, indicating a need for better monitoring and management of loans.

The theory underpinning this study is the theory of financial intermediation. Ogunloku et al., (2021) opined that credit is an imperative aspect of financial intermediation that make available funds to those economic entities that can utilize and put them into the most productive use. Theoretical studies (Adeleye et al., 2020; Igyo et al., 2016; Nwankwo, 2013) have recognized the bond that occurs between financial intermediation and economic growth. These studies sturdily stressed the role of financial intermediation in economic growth. Also, Markjackson et al., (2017) detected that financial development can lead to rapid growth. Similarly, Njogu et al., (2018) elucidated that development of banks and effective and efficient financial intermediation contribute to economic growth through directing savings to high productive activities with low risks. They however concluded that financial intermediation leads to growth. Based on this statement, this study examines the extent to which intermediation or credit to the various agricultural sector of the economy by the Agricultural Credit Guarantee Scheme Fund (ACGSF) has influenced agricultural growth in Nigeria (Ogunlokun et al., 2021; Adeleye et al., 2020; Igyo et al., 2016). This signifies that a financial institution can affect agricultural growth by efficiently carrying out their function among which is the provision of credit.

Access to credit is crucial for agricultural growth, poverty reduction, and food security. The challenges faced by farmers in accessing credit, particularly for livestock farming, fishery farming, mixed crop farming, and food crops, need to be addressed to enhance agricultural productivity and alleviate poverty. The ACGSF has the potential to play a significant role in improving access to credit and contributing to the development of the agricultural sector in Nigeria (Adetiloye, 2012; Oparinde et al., 2017). The purpose of the agricultural credit guarantee scheme fund as provided by the Central Bank of Nigeria (CBN) are to provide guarantee in respect of loans (under the decree includes advances, overdrafts and any credit facility) granted by any bank for agricultural purposes. Reuben et al (2020) opined that The ACGSF is aimed at reducing this dearth by guaranteeing these farmers or other individuals involved in agricultural production when seeking for loans from the banks. Another purpose of the ACGSF is to facilitate the provision of credit to farmers by providing guarantees to participating banks known as Deposit Money Banks (DMBs) for loans granted to farmers. According to Sulaimon (2021), The establishment of the ACGSF was also to ensure; the increase of credit from institutions, decentralization of institutional credit agencies, channeling of incentives to banks that will be given to farmers as loan, reduction in borrowing conditions.

Reuben et al (2020) posited that ACGSF was established exclusively with the objective of inspiring financial institutions to loan funds to those engaged in agricultural production as well as agro-processing activities with the goal of enhancing export capacity of the nation as well as for local consumption. However, Egwu (2016) opined that ACGSF is aimed at guaranteeing agricultural outfit that specializes in the following; agricultural outfit engaged in the establishment and management of plantation for cash crop produce like rubber production, oil palm extracting, cocoa plantation etc.; agricultural outfit engaged in the cultivation and production of food crops like fruit of all kinds, tubers of yam, cereals and all other food crops and agricultural activities involved in the large scale production of animal husbandries. Njogu et al., (2018) opined that the scheme was designed to encourage commercial banks to increase lending to the agricultural sector by providing guarantees against inherent risk in agricultural lending.

From the foregoing, the study hypotheses are as follows:

**H01:**There is no significant relationship between Loans guaranteed by ACGSF for livestock farming and agricultural growth in Nigeria.

**H02:** There is no significant relationship between Loans guaranteed by ACGSF for fishery farming and agricultural growth in Nigeria.

**H03:**There is no significant relationship between Loans guaranteed by ACGSF for mixed crop farming and agricultural growth in Nigeria.

**H04:** There is no significant relationship between Loans guaranteed by ACGSF for food crops farming and agricultural growth in Nigeria.

**H05:** There is no significant relationship between Loans guaranteed by ACGSF for cash crops farming and agricultural growth in Nigeria.

**3.0 METHOD**

The study made use of an inferential statistics in testing the relationship between the dependent variable AGG agricultural growth measured by agriculture, value added (% of GDP) in Nigeria and the independent variables (loans guaranteed by ACGSF for food crops (FC) farming, loans guaranteed by ACGSF for livestock (LVS) farming, loans guaranteed by ACGSF for Fishery (FIS) farming, loans guaranteed by ACGSF for Mixed crops (MC) farming, loans guaranteed by ACGSF for Cash crops (CC) farming. A secondary data from the bureau of statistic from the first quarter of year 2018 to the last quarter in year 2022 were used for the analysis. Using the ordinary least square method with the help of Eviews, some statistical and econometric tests was used to evaluate the multiple regression which includes R2 (the coefficient of determination) measures the percentage of variation in the dependent variables. The F-statistics measures the overall significance; the βeta coefficients measures the relative significance of each of the independent variable.

The model used for the research of this work is:

AGG = f (LVS, FIS, MC, FC, CC)

The dependent variable is Agricultural Growth measured by agriculture, value added (% of GDP) in Nigeria.

The independent variables are: loans guaranteed by ACGSF for livestock, fishery, mixed crops, food crops, cash crops farming.

AGG = **β**0 + **β**1 LVS + **β**2 FIS + **β**3 MC + **β**4 FC + **β**5 CC + e……………………………(1)

Where:

AGG = Agricultural Growth measured by Agriculture value added (% of GDP) in Nigeria

LVS = Loans guaranteed by ACGSF for Livestock farming

FIS = Loans guaranteed by ACGSF for Fishery farming

MC = Loans guaranteed by ACGSF for Mixed Crops farming

FC = Loans guaranteed by ACGSF for Food Crops farming

CC = Loans guaranteed by ACGSF for Cash Crops farming

β0 = parameter

β1-β4 = Coefficients of independent variables

**4.0 RESULTS**

**Unit Root Testing**

The data used for analysis is based on time series data and it is assumed that most time series are stationary. Hence, to avoid a spurious relationship, detecting the stationary or non-stationary of time series is crucial.

**Table 1. Augmented Dickey-Fuller Unit Root Test**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **ADF at levels** | **Test critical value** **(5%)** | **P-value** | **ADF at** **1st Difference** | **Test critical value** **(5%)** | **P-value** | **Stationery** **Level** |
| **AGG** | 0.120266 | -3.065585 | 0.9568 | -14.27116 | -3.065585 | 0.0000 |  I (1) |
| **LVS** | -2.867073 | -3.029970 | 0.0680 | -5.234411 | -3.040391 | 0.0006 |  I (1) |
| **FIS** | -3.661265 | -3.029970 | 0.0142 | - | - | - |  I (0) |
| **MC** | 1.689250 | -3.065585 | 0.9990 | -4.942281 | -3.065585 | 0.0014 |  I (1) |
| **FC** | -2.839745 | -3.029970 | 0.0715 | -6.232561 | -3.052169 | 0.0001 |  I (1) |
| **CC** | -2.221642 | -3.065585 | 0.2067 | -5.928750 | -3.052169 | 0.0002 |  I (1) |

Source: Author’s computation (EViews) significance level: 5%

From the unit root test result above, it is evident that the variables AGG, LVS, MC, FC, and CC are all stationery at 1st difference while FIS is stationary at levels. The decision rule is that when the augmented dickey-fuller t-stats is greater than the critical value at 5% (all at absolute value), we will reject the null hypothesis.

Therefore, since the Agricultural growth measured by agriculture value added (%of GDP), loans guaranteed for Livestock Farming, loans guaranteed for Mixed Farming mc, loans guaranteed for food crops Farming, loans guaranteed for cash crops Farming has a higher augmented dickey-fuller t-stats absolute value at 1st difference and the loans guaranteed for fishery Farming has the same thing at levels, we can therefore conclude that agricultural growth measured by agriculture value added (%of GDP) , loans guaranteed for Livestock Farming, loans guaranteed for mixed crop Farming, loans guaranteed for food crops Farming, loans guaranteed for cash crops Farming is stationary at 1st difference and loans guaranteed for fishery Farming is stationary at levels which makes the data reliable.

**Table 4.3: REGRESSION ANALYSIS**

|  |  |  |
| --- | --- | --- |
| Dependent Variable: AGG |  |  |
| Method: Least Squares |  |  |
| Date: 04/28/17 Time: 16:01 |  |  |
| Sample: 2018Q1 2022Q4 |  |  |
| Included observations: 20 |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Variable | Coefficient | Std. Error | t-Statistic | Prob.   |
|  |  |  |  |  |
|  |  |  |  |  |
| LVS | -0.940561 | 0.856813 | -1.097744 | 0.2908 |
| FIS | -1.177449 | 1.688774 | -0.697221 | 0.4971 |
| MC | 1.359170 | 0.660686 | 2.057209 | 0.0588 |
| FC | 0.614308 | 0.261612 | 2.348167 | 0.0341 |
| CC | 0.821713 | 2.640177 | 0.311234 | 0.7602 |
| C | 3074933. | 162605.3 | 18.91041 | 0.0000 |
|  |  |  |  |  |
|  |  |  |  |  |
| R-squared | 0.712266 |     Mean dependent var | 3546944. |
| Adjusted R-squared | 0.609504 |     S.D. dependent var | 669783.9 |
| S.E. of regression | 418545.8 |     Akaike info criterion | 28.97029 |
| Sum squared resid | 2.45E+12 |     Schwarz criterion | 29.26900 |
| Log likelihood | -283.7029 |     Hannan-Quinn criter. | 29.02860 |
| F-statistic | 6.931213 |     Durbin-Watson stat | 1.728315 |
| Prob(F-statistic) | 0.001883 |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Source: Eview generated result

From the above, it can be inferred that R-squared which is the coefficient of determination used in measuring the goodness of fit which describes the percentage of variation in the dependent variable that is explicated by the independent variable. R2 =0.712 or 71.2%, this implies the combination of the independent variables; loans guaranteed by ACGSF for Livestock (LVS)farming, loans guaranteed by ACGSF for Fishery (FIS)farming, loans guaranteed by ACGSF for Mixed Crops (MC)farming, loans guaranteed by ACGSF for Food Crops (FC)farming, loans guaranteed by ACGSF for Cash Crops (CC)farmingwere able to clarify 71.2% of the variation in the dependent variable (AGG) Agricultural Growth measured by Agriculture, value added (% of GDP) in the long run, while the other 28.8% was not accounted for in this study.

The F-statistics, 6.931, shows that a joint and multiplicative relationship exist between the independent variables: loans guaranteed by ACGSF for Livestock (LVS), loans guaranteed by ACGSF for Fishery (FIS), loans guaranteed by ACGSF for Mixed Crops (MC), loans guaranteed by ACGSF for Food Crops (FC), loans guaranteed by ACGSF for Cash Crops (CC) and they collectively influence the dependent variable; Agricultural Growth measured by Agriculture, value added (% of GDP), the result is therefore statistically significant (p (0.001883<0.05)

We can therefore conclude that the independent variable; loans guaranteed by ACGSF for Livestock (LVS), loans guaranteed by ACGSF for Fishery (FIS), loans guaranteed by ACGSF for Mixed Crops (MC), loans guaranteed by ACGSF for Food Crops (FC), loans guaranteed by ACGSF for Cash Crops (CC) has significant effect on Agricultural Growth measured by Agriculture, value added (% of GDP). The combination of these independent variables was able to explain 71.2% of the variation in agricultural growth, while the remaining 28.8% was not accounted for in this study. The F-statistics result indicates that there is a joint and multiplicative relationship among the independent variables, and they collectively influence agricultural growth. This relationship is statistically significant, with a p-value of 0.001883, indicating that the impact of the loans guaranteed by ACGSF on agricultural growth is not due to chance. This result shows that a positive and significant relationship exists between ACGSF and the development of the agriculture sector in Nigeria. This result confirms the finding of Adetiloye (2012), Oparinde et al., (2017), and Sulaimon (2021) that the credit availability by the ACGSF is a major drive to the sustainability of agriculture in the Nigerian economy.

**CONCLUSION**

Based on the findings of this study, it can be concluded that the loans guaranteed by the Agricultural Credit Guarantee Scheme Fund (ACGSF) for livestock farming, fishery farming, mixed crop farming, food crop farming, and cash crop farming have a significant effect on agricultural growth in Nigeria. Therefore, it can be inferred that the availability of credit through ACGSF plays a crucial role in the development of the agriculture sector in Nigeria. This is expected to drive the policies promote agriculture and reduce poverty in Nigeria. It is essential for policy makers to continue and strengthen the provision of loans guaranteed by ACGSF for various farming activities, including livestock, fishery, mixed crops, food crops, and cash crops. This financial support enables farmers to access funds for investments, purchase inputs, and enhance their productivity, thereby contributing to agricultural growth.

There is a need to also improve the efficiency and effectiveness of ACGSF in disbursing loans to farmers. This can be achieved through streamlined loan application processes, reduced bureaucratic hurdles, and timely disbursement of funds. Ensuring easy access to credit will empower farmers and encourage their participation in productive agricultural activities. Furthermore, it is crucial to enhance coordination and collaboration among relevant stakeholders, including the Central Bank of Nigeria, ACGSF, agricultural extension services, and farmers' associations. This collaboration can facilitate the dissemination of information, provide technical assistance, and promote best practices in agriculture, thereby improving productivity and overall agricultural growth. Also, there is a need for continuous monitoring and evaluation of the impact of loans guaranteed by ACGSF on agricultural growth. This will help identify any challenges or bottlenecks in the implementation of the credit scheme and allow for necessary adjustments and improvements. By implementing appropriate policies and measures to enhance credit access and support smallholder farmers, the country can achieve sustainable agricultural development, reduce poverty, and improve food security.

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