AGRICULTURAL CREDIT GUARANTEE SCHEME AND ECONOMIC GROWTH IN NIGERIA

BY

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DECLARATION

I hereby declare that this Dissertation is my research work and has not been previously presented wholly or in part for the award of other degree.

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CERTIFICATION

We the undersigned, certify that this research Dissertation titled Agricultural Credit Guarantee Scheme (ACGS) and Economic Growth in Nigeria: is the original work of the candidate and has been fully supervised, and found worthy of acceptance in partial fulfillment of the award of Master of Science (M.Sc.) Degree in Banking and Finance.

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DEDICATION

This research Dissertation is dedicated to the Almighty God who has given me the opportunity to complete this program.

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ABSTRACT

The objective of this study is to find out the impact of Agricultural Credit Guarantee Scheme (ACGS) on economic growth in Nigeria for the period 1981 to 2014. The study used endogenous components of Agricultural Credit Guarantee Scheme (ACGS) loans to Individual Farmers (LIF), loans to Informal Group (LIG), loans to Co-operative (LCO), and loans to Company (LCY) as explanatory variables to capture Agricultural Credit Guarantee Scheme (ACGS). Gross Domestic Product (GDP) at constant prices was used to proxy economic growth. Data for the study were obtained from the Central Bank of Nigeria (CBN) statistical bulletin of various publications, and regression analysis was carried out using IBM SPSS statistics. The t-test coefficients which attests to the significance of each of the independent variables of the study reveals that three of the parameters of the explanatory variables; ACGS loans to Informal Groups (LIG), ACGS loans to Cooperatives (LCO) and ACGS loans to Companies (LCY) counter apriori expectation with negative signs respectively. This implies that they do not have significant impact on economic growth (GDP). On the other hand, the variable of ACGS loans to individual farmers (LIF) as revealed by the regression result proved to have significant impact on economic growth (GDP). This indication is as a result of the variable's conformity to the aprori expectation with positive sign in the analysis. It was recommended that more loanable funds should be made available to individual farmers (for commercial purposes), as ACGS loans to individual farmers can be used to formulate policies that can impact significantly on economic growth (GDP) in Nigeria. Further recommendation made was that, all economic stakeholders, monetary and regulatory authorities; both at the public and private sector of the economy should combine efforts and formulate policies aimed at improving financial inter-mediation, in the area of providing adequate credit to farmers in Nigeria. This will eventually lead to the achievement of a favourable productive-based economy and viable growth of GDP in the country. The study has contributed to the body of knowledge by providing current information on agricultural financing vis-à-vis Agricultural Credit Guarantee Scheme (ACGS), with an extensive period of 1981 to 2014 (34 years). This study thus has implications for global economy particularly in the area of food production and living standard of nations.

TABLE OF CONTENTS

CHAPTER TWO: REVIEW OF RELATED LITERATURE

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In contemporary times, credit for developing the agricultural sector in the economy has become increasingly demanding. This is because finance plays an essential role and acts as the life wire for economic growth, as well as stagnation in any given economic system especially in developing countries (Nigeria inclusive). In their opinion, Beck and Demirguc-Kunt (2006) advocate that special financing mechanism can better provide greater access to agricultural finance.

Though, the Nigerian government in the 1970s has introduced some policies and initiatives in an attempt to attract finance in order to enhance agricultural productions in the country. While most of these initiatives have failed, one wonder if the surviving ones are really fulfilling the purpose of their establishment, since rural poverty is still on the rise; with a significant amount of Nigerian involved in agricultural production.

Over the years, there has been the notion that the impediment in the process of accessing finance by farmers is not particular because of non availability of credit but the refusal of credit facilitators to give loans due to uncertainty of payback. On the other hand, credit facilitators such as banks are in business to maximize profit for their owners; hence they are not to be blamed as they are not a non-profit (charity) organization. This however did not favour the rural farmers as the situation makes them to be an abandoned group in the economy (a group that does not receive attention of credit providers due to lack of collateral). This refusal by banks over the years has been a major setback in agricultural production.

It is in the light of the above; the government thought it fit to establish the Agricultural Credit Guarantee Scheme (ACGS) to act as intermediary between credit providers such as banks and farmers in the agrarian sector of the economy. The scheme main purpose is to mitigate the risk of agricultural credit. This act of government as a guarantor is not unconnected with the fact that agriculture contribute in no small measure in the supply of raw material to the industrial sector, provides employment, a source of exchange earnings, provides food for the teaming population of Nigeria etc (food and agriculture organization, 2006).

Central bank of Nigeria (2010), noted that the agricultural sector could not grow to contribute significantly to the growth of the Nigerian economy as a result of poor funding. The important role played by finance capital as a factor of production to promote economic growth, and the need to adequately channel credit to rural areas for economic development of the poor farmers in the agricultural sector cannot be over-emphasized.

Rhaji (2008) and Shepherd (2002) opined that credit supersedes other resources like land, labour etc., and that it is a stimulant / determinant to the access of all resources that farmers depend upon. It is therefore pertinent to empirically analyze Agricultural Credit Guarantee Scheme (ACGS) and its impact on Economic Growth of Nigeria.

1.2 Statement of the Problem

Agriculture in Nigeria accounted for well over half of our Gross Domestic Product (GDP) in 1960, and was the main source of export earnings and public revenue, with the Agricultural Marketing Boards (AMB) playing a leading role, but today this leading role in the economy has been taken over by the national oil company, the Nigerian National Petroleum Corporation (NNPC). Central Bank of Nigeria (2003), noted that oil still accounts for our major revenue (gearing towards 80%) and almost 100% of our export earnings. Although Agriculture is shown to serve as the major activity of the majority of Nigerians presently; it is clear that we indulge in agriculture purely for subsistence strategies rather than a calculated effort to enhance the growth of our country's economy due to farmers' restricted access to credit.

As a result of the daunting challenges faced by farmers in Nigeria, the government thought it fit to act as an intermediary through the Agricultural Credit Guarantee Scheme (ACGS) whereby the government stands as a guarantor for agricultural loans in order to mitigate the risk involved in agricultural financing. The ACGS loans on category since inception has been a major source of financing farmers in the scheme; yet these loans have not been assessed empirically with respect to their impact on economic growth.

This study notes that some related studies have been carried out previously by researchers to empirically analyze the potency of agricultural financing in Nigeria. Olowu (2011) in a study on agricultural financing and performance in Nigeria made use of Agricultural Credit Guarantee Scheme loans by size as variables; the conclusion of the study is that the ACGS has been effective in enhancing agricultural production and it should be continued for agricultural financing in Nigeria. Nwankwo (2013) in his study on agricultural financing in Nigeria; focused on the size of Nigeria Agricultural Cooperative and Rural Development Bank (NACRDB) now Bank of Agriculture (BOA), and concludes that the size of NACRDB agricultural loan has significant impact on the growth of Nigerian economy.

While many of the studies on agricultural financing focus on development finance institutions in Nigeria such as: Community Banks (now Micro Finance Banks) and Nigerian Agricultural Cooperative And Rural Development Bank (now Bank of Agriculture) etc., others focus on the size of ACGS, comparing it with other initiatives in the sector. As mentioned above, the ACGS loans on category based has been a major financing option of the scheme in the sector since inception in 1978; yet the impacts of these loans on the growth of the economy have not been empirically examined in Nigeria. It is against this backdrop that this study seeks to explore the impact of ACGS category based loans on economic growth in Nigeria.

1.3 Research Questions

i. Is there a significant impact of ACGS Loans to Individual Farmers (LIF) on Gross Domestic Product (GDP) in Nigeria?

ii. Is the impact of ACGS Loans to Informal Groups (LIG) on Gross Domestic Product (GDP) in Nigeria significant?

iii. Is there a significant impact of ACGS Loans to Cooperatives (LCO) on Gross Domestic Product (GDP) in Nigeria?

iv. Is the impact of ACGS Loans to Companies (LCY) on Gross Domestic Product (GDP) in Nigeria significant?

1.4 Objectives of the Study

The broad objective of this research is to determine the impact of Agricultural Credit Guarantee Scheme (ACGS) on Gross Domestic Product (GDP) in Nigeria. ACGS funds are one of the major sources of Agricultural financing option in Nigeria. The components of ACGS are ACGS loans to Individual Farmers (LIF), ACGS loans to Informal Groups (LIG), ACGS loans to Cooperatives (LCO) and ACGS loans to Companies (LCY). Against this backdrop, the specific objectives of this research are to:

i. Find out whether ACGS loans to Individual Farmers (LIF) has impact on Gross Domestic Product (GDP) in Nigeria;
ii. Determine the impact of ACGS loans to Informal Groups (LIG) on Gross Domestic Product (GDP) in Nigeria;
iii. Find out whether ACGS loans to Cooperatives (LCO) has impact on Gross Domestic Product (GDP) in Nigeria; and
iv. Determine the impact of ACGS loans to Companies (LCY) on Gross Domestic Product (GDP) in Nigeria.

1.5 Hypotheses

The study made use of the null hypotheses. The hypotheses are derived from the research questions and objectives as follows:

HO_1: There is no significant impact of ACGS loans to Individual Farmers (LIF) on Gross Domestic Product (GDP) in Nigeria.

HO_2: There is no significant impact of ACGS loans to informal Groups (LIG) on Gross Domestic Product (GDP) in Nigeria.

HO_3: There is no significant impact of ACGS loans to Co-operatives (LIG) on Gross Domestic Product (GDP) in Nigeria.

HO_4: There is no significant impact of ACGS loans to Companies (LIG) on Gross Domestic Product (GDP) in Nigeria.

1.6 Scope of the Study

This study focuses on Nigeria and investigates Agricultural Credit Guarantee Scheme (ACGS) and Economic growth in Nigeria under the period 1981 - 2014. The data utilized for our empirical estimation relates to the Nigerian economy only, though have implications for world economy. The study explore how cumulative loans under the Agricultural Credit Guarantee Scheme (ACGS) to Individual farmers, Informal groups, Cooperatives and Companies can boost agricultural development as well as impact positively on economic growth of Nigeria. According to Central Bank of Nigeria (2009), all licensed commercial-

Deposit Money Banks in Nigeria has been approved as participating banks under the ACGS. Therefore, focus is on the credit guarantee scheme funds under the Agricultural Credit Guarantee Scheme (ACGS) in Nigeria.

1.7 Significance of the Study

The significance of this study lies mainly on the period of investigation, which range from 1981 - 2014 (34 years). This period marks the beginning of a major government intervention in the agricultural sector in order to encourage Banks in the Nigerian economy to give unrestricted financial access to farmers. Although, several related studies have been carried out by other researchers, such has not covered an extensive period of thirty four years of the Agricultural Credit Guarantee Scheme (ACGS). In other words, this study examines the important role of finance in the sector's contribution to growth since the inception of government as a guarantor to agricultural loans through its agency: the Agricultural Credit Guarantee Scheme (ACGS).

Hence, this study bridge the gap of time lag by previous studies regarding the topic; the current nature of this study cannot be taken for granted as it serve as a boost to researchers who seek information on current issues relating to financing of the agricultural sector and its attendant role in enhancing growth. Another significance of this study is the fact that with improved agriculture, the Nigerian economy stands to gain in its efforts towards development. Also, this study will benefit Agricultural practitioners, Federal and State Governments, Banks especially Deposit Money Bank (DMBs) etc. Generally, this research no doubt will form bases for formulation of sound policies that will promote growth in the agricultural sector and the Nigerian economy at large.

1.8 Limitation of the Study

The originality and reliability of any study or research work is based on the quantity and quality of available data. Though it is the duty and intention of any researcher to bring out and show everything the study is to have, but there are constraints in this study which include, transportation, lack of adequate materials, non-cooperative attitude of personnel, difficulty in getting adequate data etc. Despite these challenges, the outcome of the research work was not significantly affected because the researcher was able to circumvent the problems.

1.9 **Definition of Terms**

Agricultural Credit Guarantee Scheme (ACGS): A scheme established, funded by Federal Government of Nigeria and Central Bank of Nigeria; to guarantees credit facilities (loans) from the Deposit Money Banks (DMBs) to farmers at 75 percent of total fund borrowed without any security.

Companies: Agribusiness firms in Nigeria that is registered with the National Directory of Establishments, Manufacturers Association of Nigeria (MAN) or National Association of Small and Medium Scale Enterprises (NAMSE), published by the Federal Office of Statistics.

Economic growth: An increase in the capacity of Nigeria economy to produce goods and services, compared from one period of time to another.

Gross Domestic Product: The total value of all goods and service produced in Nigeria in one year.

Informal Groups: These are group of farmers or associations such as clubs and societies etc. that are not formally registered as a group.

Loan: Money that an organization such as banks lends to the agricultural sector.

1.10 Organization of the Study

The aim of this study is to empirically examine agricultural financing and economic growth in Nigeria. The study is organized as follows: chapter one is the introduction while chapter two reviews the empirical and theoretical literature on agricultural financing; chapter three discusses the models and methodology, while chapter four provides data and empirical evidence and the final part which is chapter five provides the discussion of findings, conclusion, recommendation and contribution to knowledge.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This section of the study deals with the review of the related theories to the subject matter of the study. The literature reviewed in this chapter by the researcher happens to be conceptual, empirical and theoretical review. This chapter delve on agricultural financing in Nigeria, economic growth in Nigeria, agricultural financing and economic growth, and agricultural credit guarantee scheme and economic growth.

2.1 Conceptual Review

The literatures reviewed in this section are conceptual literature of agricultural financing in Nigeria, credit policies and initiatives, economic growth, agricultural credit guarantee scheme loans etc.

2.1.1 Agricultural Credit Policies in Nigeria

Several efforts have been made by the Nigeria government since the 1970s in an attempt to revive the agricultural sector in order for the country to be self-sufficient in the area of food supply. Government line of action in the design of credit policies were geared towards achieving growth and development for agriculture. The main aim was the attainment of self-sustaining growth for the agriculture sub-sectors with a view of improving the well-being of Nigerians.

According to the Central Bank of Nigeria (2007), the main reason for agricultural financing initiatives and policies was to ensure that there is an effective system that carter for the credit schemes in a very sustaining manner. Such a system that will also cover other areas of programmes and institutions that provides credit both at the macro and micro level to small, medium and large scale producers. The government of Nigeria in her successive administrations in the past has initiated several policies and programmes towards restoring agriculture back to its lost glory; and tackle the daunting challenges of inadequate credit financing faced by farmers in the economy. Nigeria's policy for agriculture is surrounded with government's work-plan and frame work designed to attain an overall agricultural growth and sustainable development.

In the light of the above, Nzota and Okereke (2009), noted that Nigeria agricultural policies affected the level and relevance of financial deepening to economic development. These policies appear to have been very instrumental in the performance of Nigeria agricultural sector. Akiri and Adufu (2007) noted that Nigeria financial system and the government effort encourage agricultural growth incentive in their services and functions as they act as intermediaries. However, some of the government policies and initiatives have failed over the years due to the following reasons according to the Central Bank of Nigeria in 2007; commercial banks reluctance to support small enterprises, no effective skills to deliver service, farmers poor management ability, management inability, non-availability loanable funds etc.

Government has been involved in a list of policy initiatives on the provision of agricultural finance services in Nigeria from the 1970s to date in order to facilitate finance for agricultural growth in the sector. These policies include schemes, initiatives, programmes and institutions; of which some are no more in existence (or operating in the same name and structure). Such include sectoral allocation of credit (1970-1996), people bank of Nigeria (1990-2002), Nigerian family economic advancement programme (1997-2001), small and medium enterprise equity investment scheme (2001-2008), rural banking programme (1977-1991), lending as a percentage for savings mobilization in rural areas to rural dwellers (1977-10996), and concessionary interest rate (1980-1987). However, the policies which are still in operation in Nigeria are discussed below.

2.1.2 Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) now Bank of Agriculture (BOA) (1972-Date)

This is the first specialized financial institution owned by the Federal Government of Nigeria with limited liability. The Federal Ministry of Finance and Central Bank of Nigeria own shares in 60 percent and 40 percent respectively. The bank is designed to actively participate in the process of encouraging agricultural savings mobilization, provision of credit while inculcating bank habits in rural farmers with a view of reducing poverty. Its operational financial activities are micro in nature focusing on agricultural finance markets. The bank covers the gap created by the conventional banks (commercial banks) with its special banking focus on rural development. It was formed from the Nigerian Agricultural and Cooperative Bank (NACB). Anyanwu (2004) noted that NACB (now BOA) accept deposits as well as, offer loans and advances with small amount of interest with respect to purpose.

2.1.3 Agricultural Credit Guarantee Scheme (1977 to date)

This scheme has been in existence since 1977 and it's the scheme under study with respect to its impact on economic growth in Nigeria. The ACGS is geared towards strategic development with the aim of making available specific required financing to farmers to promote small and medium establishments (enterprises) in the agricultural sector. The ACGS promote sustainable growth by making available credit facilities (finance) to a significant number of farmers of the rural population (Olaitan, 2006). The scheme makes access to finance easier as it guarantee 75 percent of credit from banks to farmers of the total borrowed funds without collateral (security). The CBN regulate and stipulate the guidelines as it handles the overall operations of the scheme. The Agricultural Credit Guarantee Scheme (ACGS) is one of the key important schemes responsible in the promotion and facilitation of agricultural financing in the agrarian sector of Nigeria.

2.1.4 Community Banks (CBs)/Microfinance Banks (MFBs) (1990 to date)

The concept of Community Banks (now Micro Finance Banks) came into operation in an attempt to establish a financial institution that will take the form of conventional banking in the micro level to the rural based of the population in Nigeria. Community banks main focus is on the promotion of rural economies and they are set to be institutions that provide structured credit facilities to the rural people. Community banks establishment was due to the need to bridge the gap that existed in the rural economy; where conventional financial intermediaries marginalized the people and agricultural activities were not promoted.

The banks provide finance and other credit related services to her members (community) with a view of reducing poverty by empowering the people through the increased access to factors of production. Onugu (2000), in his analysis stated that CBN's monetary credit guideline of 1996 direct a statutory allocation of 18 percent of the bank's credit to be given to agricultural activities.

2.1.5 Nigerian Agricultural Insurance Corporation (1996 to date)

The Nigerian Agricultural Insurance Corporation (NAIC) was established at a period that there was a serious need for insurance cover for farmers in the agricultural sector. The need for a specialized agricultural insurance company due to the unwillingness of conventional insurance companies to cover agricultural activities (where they were considered as risky) was the idea that informed its establishment by government. NAIC specific function is to provide insurance cover for farmers against natural disaster and other risk associated with agricultural production activities in Nigeria. One key function carried out by this corporation is the mandatory insurance cover for all loans granted by banks to the sector under the Agricultural Credit Guarantee Scheme (ACGS). This insurance cover has a special socio-economic impact on farmers who benefits from any Agro-allied credit by certified lending institution. NAIC is the only surviving insurance company owned by the Federal Government of Nigeria.

2.1.6 Refinancing and Rediscounting Facility (2002 to date)

This is a financing mechanism through which the Central Bank of Nigeria (CBN) assists Deposit Money Banks (DMBs) to provide short-term loan facilities at a preferential interest rate. The Rediscount and Refinancing Facility (RRF) is a credit system that is available specifically for the support of agricultural exports.

It is a facility that is meant to improve and develop agribusiness through export channel in order to enhance production unit. One key objectives of RRF is to encourage medium and long-term bank lending to the productive sector of the so as to expand Nigeria's production system.

2.1.7 Agricultural Credit Support Scheme (2006 to date)

The Central Bank of Nigeria and the Ministry of Agriculture are the two government agents that initiated the Agricultural Credit Support Scheme (ACSS). The apex bank and the ministry of agriculture collaborated to finance the scheme and allow banks to participate under the ACSS in order to encourage agricultural enterprise in the country. Funds in this scheme are provided strictly for agricultural purpose (by concession) with particular focus on small scale farmer and credit support. The CBN (2007) stated that the scheme was set up to fast-track agricultural development with the provision of loans at a single digit to enhance commercial agriculture.

2.1.8 Agricultural Credit and Finance in Nigeria

Ugwu (2010) in his study stated that one input that is required for agricultural development is finance; reason is that it is the vehicle that facilitate (purchase) other inputs to be available for effective production. There has been so many studies and analysis concerning the role of commercial banks finance and agricultural development in Nigeria. Many scholars have argued that the agrarian sector cannot be developed without adequate availability of credit to finance its activities. In most countries, there is agricultural lending market. This market is made up of organizations that are called participating financial institutions and systems that can lend financial resources to promote agricultural farm produce productions. Predominant in this market is the Deposit Money Banks (DMBs). Also, participation in this market is other specialized institutions such as the Nigerian Agricultural Cooperation and Rural Development Bank (NACRDB) now Bank of Agriculture (BOA).

The banks have been playing prominent role and will continue to do so under a package of incentives. The life insurance companies can find useful avenues to invest their long-term funds by buying equipments for hire. The informal financial market which includes the cooperatives, family and friends who can also make funds available to interested farmers will continue to be active as before. The informal financial market had grown out of the financial assistance that farmers received from their different groups (Kehinde, 2012). The size of the borrower is of great importance in negotiating the terms and cost of credit and very few farmers are large. In the days of sectoral allocation, the agricultural sector was favoured and banks complied because of penalties (which some preferred to pay than to comply), however this is no longer so under deregulation.

Gurdenson, Glory and Due (2003) believe that this represents a cost in agricultural delivery, which in the Nigerian environment farmers cannot avail themselves of available credit. Since the Nigerian banker is not oriented toward development financing, the Government must incentivize the process. For the lenders in the market, the most significant risk is credit, which has been noted, could arise from a number of factors ranging from bad harvest to poor market prices. However, underwriting or guarantee can adequately address this. Other risks faced by lending in this market are liquidity, price, strategic and interest rate risks. According to the CBN (2000), the face of the agrarian culture of Nigerians has changed somewhat to reflect a dwindling of interest of the youth in the sector in addition to the perennial problem of lack of fertilizer to improve crop yields. A dualistic structure reflecting the large scale as well as peasant farmers cultivate for commercial and subsistence purposes. The peasant farmer dominates the landscape and very little of Nigeria agricultural output is produced using modern methods (CBN 2003). With different types of ecological belts, farming can be easily practiced from the dense rainforest belt of the south to the Sudan savannah of the north. The agricultural output that is food in Nigeria as grouped by IFPRI (2003), and in no order of importance are: cassava, yams, rice, vegetables, beef, millet, groundnut, sorghum, cotton, and maize. Nevertheless, rice is the most consumed. Though some of the staples can be cultivated with mechanization, this is constrained by the smallholder land methods and inadequate finance.

Finance can be made available to the farmer who has sufficient cultivable land to enable the mechanization of the process, as it is increasingly becoming clearer that the smallholder farmer may not have sufficient land to maximize the use of credit when made available. (Equally, lenders are opposed to assisting small landholders, as a result of cost of credit appraisal.) Most of the credit to the farmer could be for a period of less than one year for arable crops which fits well into the Nigerian banks' desired portfolio. From 1978 to 1989 with sectoral credit allocation to the agricultural sector in place, the result was a consistent increase in the lending portfolios of banks to the agricultural sector. This has now been lost to the financial system deregulation as agricultural lending is considered more risky, problematic and unprofitable relative to other sectors.

Bank credits to this sector in nominal terms, over the years have increased from about N 230 million (then about $233 million) in 1978 to over N 262 billion ($2.23 billion) in 2005, but then food imports cost have equally increased (CBN 2007). For bank credit to be effective there must be soft landing for both the bank and the farmer in terms of cost and tenor. Ojo (2002) discusses the ineffective role of the erstwhile community banks in financing agriculture, having been transformed in 2007 to microfinance banks. Though Olaitan (2006) believes that this would enhance agricultural lending, this might not be so in the long-term given the attitude of this group of institutions over the years.

2.1.9 Current Credit Methods: Guarantee, Insurance and Underwriting Schemes

Guaranteeing credit in the agricultural sector has in no small way motivated lenders to grant loans to borrowers, who ordinarily would not have been able to access credit on their own due to the disadvantaged position of farmers for reasons of lack of security (collateral) to cover the loan repayment (Navajas, 2001). With the coming on board of the Nigeria Agricultural Insurance Corporation (NAIC), farmers can now be indemnified for likely losses of production during the period of harvest. On the other hand, underwriting facilitate the process of guaranteeing farm produce prices which assures the stability of farmers income. With the presence of guarantors, lenders now lend comfortably to prospective debtors (Borrowers); while the guarantors takes the payment responsibility in case of default on the part of the farmer(s). However, Kehinde (2012) noted that the credit guarantee scheme is definitely not without some challenges, but obviously has the merit of assisting farmers that would not have been able to access credit facility in the system.

2.1.10 Sources of Agricultural Credit in Nigeria

Aside the personal finance (owners capital) of the farmers, there are quite a number of other sources of credit available to the agricultural sub-sector in Nigeria. These sources are broadly classified into formal and informal sources of credit.

Formal Sources of Credit

These are sources of financing that comes from formal financial institutions that are backed by law. They are otherwise referred to as formal lenders who have the legal permission to carry out the function of intermediation (generating deposits from the surplus unit and lending to the deficit unit) in the economy. They includes commercial banks (now Deposit Money Banks), Merchant Banks (before universal banking system), Insurance Companies, Nigerian Agricultural and Cooperative Bank (now Bank of Agriculture), Community Bank (now Microfinance Banks), Cooperative Societies etc.

Informal Sources of Credit

These are direct opposite of a formal credit system. They do not require any strict rules and conditions before accessing the credit. They are called informal because their activities are not formal in the eyes of the law. They includes;

farmers personal income, friends, relatives and neighbours, money lenders (Osusu), farm associations / Cooperatives etc.

2.1.11 Economic Growth in Nigeria

World Bank (2014) noted that the Nigeria can reduce poverty because her economy has the potentials to build a system that can promote rapid growth. It also stated that such growth can carter for the problems of inequalities while improving the standard of living of the Nigerian population through good education, quality health care service and infrastructure etc.

The World Bank noted further that the country has recorded an average economic growth in the past decades. This is as a result of maintaining a prudent fiscal policy management. Nigeria economy in 2014 is said to have a robust growth courtesy of the non-oil sector as the oil sector estimate recorded 1.3 percent drop and 13.1 percent in 2013. The World Bank equally noted that the decline was occasioned by the activities of oil theft and disruptions from the Niger Delta region where exploration activities are carried out.

The third quarter of 2014 also experience a significant drop in the prices of oil in the market occasioned by low patronage. This situation posed a major challenge to the nation's external balance and public financing system; since oil generate close to 90 percent of exports and about 75 percent of the country's budget finance. Similarly, accruable revenues from the Federation Account to the three tiers of government also dropped below 6 percent before the end of 2014 as noted by World Bank. This led to the reduction in federal government's spending, there by affection many states negatively in the payment and management of wages and pensions. World Bank also noted that growth has been a key driver of poverty reduction but Nigeria rapid increase in population has posed a challenge in the economic growth system; as the situation has propelled poverty to be on the increase. This however, is not far from the true experience of Nigerians in the economy.

2.1.12 Agricultural Financing and Economic Growth

There is no doubt agriculture has great potentials to harness growth in any economic system. Here in Nigeria, Emeka (2007) noted that agriculture has contributed about 30 to 42 percent to the country's Gross Domestic Product (GDP) and is responsible for 65 percent employment of the entire labour force in the country. In similar development, the World Bank (2007) and Abdulahi (2002) stated that the agrarian sector has contributed to the Nigerian economy in the provision of product, factor, market and foreign exchange. In the same vein, Development Economists have asserted that agriculture is the major source of economic growth in any nation, especially Africa countries (Nigeria inclusive). The view of the development economists (the pysiocrats) is that agriculture productivity is largely responsible for the regulation of the economy through the diffusion of its surplus via a transaction network. They see the agrarian sector as the only real sector that generate surplus that other sectors depend on in the general economy.

Philip, Nkonya, Pender and Oni (2009) did not see the agriculture sector differently. In their contribution to the above, agriculture is the propellant to the main stay of an economy; as it is the largest sector in the share of employment in Nigeria. In the light of the above, it is evident that agriculture is an important instrument and driver to economic growth and development in Nigeria. On the other hand, this important role cannot be carried out or implemented without the crucial role and input of finance. The agriculture sector need finance to make all purchases such as land, machineries and equipments, buildings, labour hiring, facilitation of new and appropriate technologies etc.

It is therefore expedient to state that agricultural credit (finance) is a key development ingredient that fast-track agricultural investment and application of advanced technologies that are required to activate rapid growth in Nigeria. Furthermore, the saving gap, trade balance gap and fiscal gap have been pinpointed as hindrances to growth in many African countries; including Nigeria (Mallik, 2008).

There have been many studies on the relationship between finance and economic growth such as Ariyo 1999, Thirlwall, 1976; Beck, Levine and Loayza, 2000 etc. These studies conclude that agriculture financing has impact on economic growth especially in developing countries. Most of the studies mentioned above on this subject matter have employed simple descriptive assessment of some relevant indices.

2.1.13 Agricultural Credit Guarantee Scheme (ACGS) Loans and Economic Growth

The use of credit to stimulate the growth and development of cannot be over emphasized because of the essential role finance play in any given economic system. Musa, Afolami and Adebayo (2014) noted that farmers demand for credit has out grown the credit supply abilities of the conventional banks in Nigeria. Enya and Alimba (2008) emphasized that the above reason was largely responsible for farmers in the agrarian sector to seek for credit from the informal set of creditors such as money lenders and others to meet their financial needs. Other militating factors against farmers loans acquisition from banks in their inability to provide collateral (security) to guarantee repayment (Awoke, 2004 and Isiorhovoja, 2013).

The Agricultural Credit Guarantee Scheme Fund (ACGSF) was established in 1977 by the Federal Government of Nigeria (FGN) and Central Bank of Nigeria

(CBN) in the ratio 60:40 with an initial Fund of N100 million and paid up capital of N85 million. The Scheme was designed to stimulate banks' lending to the agricultural sector by providing guarantee cover for loans advanced to the agricultural sector by banks. The guarantee pledges to pay to the lending banks, 75% of any amount net in default of outstanding balance by borrowers provided that collateral pledges had been realized and applied to the account.

Since the establishment of the ACGSF in 1977, it has witnessed a variety of innovations all geared towards enhancing its efficiency and the actualization of its deliverables. The TrustFund Model (TFM) and the Interest Drawback Programme (IDP) are two remarkable innovations that have stemmed out from the ACGS. The scheme was established to ensure a "win-win situation" for both the farmers and the lending bank because the Central Bank aim is to encourages both parties to contribute to economic growth. Effectively, the measure was targeted at encouraging loan repayment by beneficiaries and also provides a reasonable borrowing rate for beneficiaries that are able to honour their loan repayment terms.

According to Musa et al. (2014), the numbers of loans repaid are equal to the numbers of guaranteed loans. Sunny (2013), noted in his empirical study on the impact of commercial banks credits on agricultural development in Nigeria; that

Agricultural Credit Guarantee Scheme loans amongst others factors has significant impact on economic growth. This conclusion seems to be a resultant effect owing to the above aim of establishing the scheme. However, this study intends to further ascertain how financing agriculture through the Agricultural Credit Guarantee Scheme (ACGS) loans on category base can boost economic growth.

2.2 Empirical Review

According to Olowu (2011), agricultural credit (financing) has a positive relationship with economic growth in Nigeria. This disposition was made in his study on agricultural financing and performance in Nigeria, which made use of Agricultural Credit Guarantee Scheme (ACGS) loans by size along side with other variables. The conclusion of the study is that the ACGS has been effective in enhancing agricultural production and it should be continued for agricultural financing in Nigeria. The study also reveals that ACGS has a significant effect on aggregate agricultural output, crop and fishery subsector outputs. He however noted that the effects of the scheme on livestock and forestry were not significant due to long gestation of those subsectors. Thus, it is evident that the ACGS plays an important role in stimulating agricultural production in Nigeria.

Also, Nwankwo (2013) assert that agricultural financing has a significant relationship with growth in the economy. The researcher made this assertion in his study on agricultural financing in Nigeria; which focused on the loan sizes of the Nigeria Agricultural Co-operative and Rural Development Bank (NACRDB) now Bank of Agriculture (BOA) as a study area. The conclusion of this empirical study was that the size of NACRDB agricultural loan has significant impact on the growth of Nigerian economy.

Olajide, Akinlabi and Tijani (2012), analyzed the relationship between Agricultural resource and economic growth in Nigeria, using the Ordinary Least Square regression method to analyze the data. The results revealed a positive cause and effect relationship between Gross Domestic Product (GDP) and agricultural output in Nigeria. According to the researchers, Agricultural sector is estimated to contribute 34.4 percent variation in Gross Domestic Product (GDP) between the study periods of 1970 to 2010 in Nigeria.

In another study by Obansa and Maduekwe (2013), Agriculture financing (credit facilitation) is essential in development strategies as it promotes agricultural investment and adoption of technology that is required to improve economic growth. It has been shown that most African countries (Nigeria inclusive) have inadequate levels of domestic savings, which could be directed to investment and insufficient export earnings required to import capital goods for investment.

2.3 Theoretical Review

Credit is an important aspect of financial intermediation that provides funds to those economic entities that can put them into the most productive use. The theoretical review for this study is financial intermediation.

2.3.1. Financial Intermediation

Nwankwo (2013) noted that theoretical studies have established the relationship that exists between financial intermediation and economic growth. He cited that the following studies; Schumpeter (1934), Goldsmith (1969), McKinnon (1973) and Shaw (1973), strongly emphasized the role of financial intermediation in economic growth. He further stated that other studies by Jovanovish (1990), and Bencivenga and Smith (1991) have posited that financial development enhances economic growth. According to the above studies as stated by the researcher, this is made possible through channeling of savings to high productive activities which eventually reduce the risk of liquidity.

Also, Shittu (2012) established that financial intermediation has a significant impact on economic Growth in Nigeria. Based on this assertion, this study will therefore examine the extent to which intermediation or credit to agricultural sector via the Agricultural Credit Guarantee Scheme (ACGS) has influenced economic growth in Nigeria. This means that a financial institution can effect economic growth by efficiently carrying out its functions, among which is the provision of credit.

2.4 Summary

This chapter reviewed agricultural credit in Nigeria, the performances as well as the problems of the sector. The chapter also reviewed a number of policies initiated by the government to solve the problems faced by the agriculture sector. However, while the policies initiated by the government may have presented an important case for agricultural financing in Nigeria, they leave numerous questions unanswered. Firstly, to what extent have they increased agricultural financing and agricultural performances? Secondly, does the fact that some of the policies are still operational amount to access to finance for agriculture? With particular regards to the role of Agricultural Credit Guarantee Scheme (ACGS) in enhancing financial empowerment for farmers with promises of productivity, it is important to ask if the scheme is an appropriate strategy for agricultural financing and performance in Nigeria. Other aspect of this chapter includes theoretical and empirical reviews.

References

Abdullahi, F.A. (2002). *Spectrum memory guide, agricultural science for senior secondary certificate examination.* Ibadan: spectrum books limited.

Akiri, E.S. and Adofu, I. (2007). Interest rate deregulation and investment in Nigeria: *Journal of economic management studies, 2(1).*

Anyanwu, C.M. (2004). *Microfinance institutions in Nigeria; policy, practice and potential:* Paper presented at the G24 workshop on constraints to growth in sub Saharan Africa. pretora, South Arica, November 29-30

Awoke, M. U. (2004). Factors affecting loan acquisition and repayment patterns of small holder farmers in Ika North West. Delta State, Nigeria. *Journal of sustainable agricultural resources, 9*, 61-64.

Central Bank of Nigeria (2000). The changing structure of the Nigerian economy and implications for development. Research department Abuja: *Central Bank of Nigerian publications*. Retrieved from: http://www.cenbank.ort/out/publications/statbulletin/rd/2000/stabull.

Central Bank of Nigeria (2003). Agricultural development: issues of sustainability. In: OJ Nannna, SO Alade, EO Odoko (Eds.): *Cotemporary Economic Policy Issues in Nigeria.* Abuja: CBN Publications, pp. 185-222.

Central Bank of Nigeria (2007). *Agricultural finance policies in Nigeria:* Paper presented at the 3rd AFRACA Agribanks form: Africa value chain financing" held in Nairobi, Kenya, 16-19 October.

Central Bank of Nigeria (2010). *Economic report for the first half.* Central Bank of Nigeria Corporate Head Office 33 Tafawa Balewa Way Central Business District P. M. B. 0187, Garki Abuja © 2010 Central Bank of Nigeria ISSN 1597 – 2976 *Website: www.cbn.gov.ng*

Emeka, O.M. (2007). *Improving the agricultural sector toward economic development and poverty reduction in Nigeria.* CBN bullion, 4: 23-56.

Enya, V. E. and Alimba, J. O. (2008). Analysis of factors affecting the supply of commercial banks credit to the agricultural sector in Nigeria (1986-2005): *Continental journal of. agricultural economics 2: 74 - 77, 2008*

Gurdenson, M., Glory, B.A. & Due, E. (2003). Profitability and agricultural lending relations. *Paper presented during the conference of American association of agricultural economics*, July 27-30. Canada.

IFPRI (International Fertilizer Production Research Institute) (2003). *IEHA analysis and knowledge management system (AKMS):* Results from the first technical group meeting, (14-16th January 2003). IFPRI, IITA, ILRI, IFDC technical group. Washington D.C. USA: IFPRI.

Isiorhovoja, R.A. (2013). Patterns in agricultural loans under the Agricultural Credit Guarantee Scheme in Nigeria. *Meditterranean journal of social sciences, 4*(1), 497-502.http://dx.doi.org/10.5901/mjss.2013.v4n1p497

Kehinde, A. A. (2012). *Agricultural financing in Nigeria:* an assessment of the Agricultural Credit Guarantee Scheme Fund (ACGSF) for food security in Nigeria (1978-2006) department of banking and finance, school of business, college of development studies, Covenant University, Ota, Nigeria

Mallik, G. (2008). “Foreign aid and economic grwoth: a cointegratian analysis of the six poorest African Countries”. *Economic analysis and policy,* vol. 38. no.2, pp 251-260.

Musa, A. O., Afolami, C. A. & Shittu, A. M. (2014). *Impact of the Interest Drawback Programme (IDP) on loan repayment under the Agricultural Credit Guarantee Scheme (ACGS).* Department of agricultural economics and farm management, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria

Navajas, A.R. (2001). Credit guarantee schemes conceptual framework: financial system development project. *Technical bulletin no.1 bolivia – June publication of GTZ/FONDESIF*

Nwankwo, O. (2013). Agricultural financing in Nigeria: An empirical study of Nigerian Agricultural Co-operative and Rural Development Bank (NACRDB): 1990-2010 Department of banking and finance Kogi State University, Anyigba, Kogi Sate, Nigeria. *Journal of management research 2013, vol. 5, No. 2* Retrieved from: *http://www.macrothink.org/jmr*

Nzotta, S.M. & Okereke, E.J. (2009). Financial deepening and economic development of Nigeria: an empirical investigation. *African Journal of Accounting, Economics, Finance and Banking research,* **5**(5), 55–66.

Obansa, S. A. J. & Maduekwe, I. M. (2013). Agricultural financing and economic growth in Nigeria. *European Scientific Journal* January 2013 edition vol.9, No.1 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431

Ojo, A. T. (2002). The future of community banks in Nigeria. *First Bank of Nigeria plc quarterly review,* 2: 45-61.

Oladeji, S. I. (2004). Food insecurity bane to sustainable development in Nigeria. *Journal of Economic and Financial Studies*, 1(2): 43-58.

Olaitan, M.A. (2006). Finance for small and medium enterprises: Nigeria's Agricultural Credit Guarantee Scheme Fund. *Journal of International Farm Management, 3(2). Retrieved from: http://www.ifadonline.org*.

Olowu, A. U. (2011). Agricultural financing and performance in Nigeria: a case study of the Agricultural Credit Guarantee Scheme (ACGS): *Research report University of Stellenbosch. Retrieved from: http://www.scholar.sun.ac.za/handle/10019.1/8532*

Onugu, C.U. (2000). The development role of community banks in rural Nigeria. *Development in practice, 10(1), 102-107*

Philip, D., Nkonya, E., Pender, J. & Oni, O. A. (2009). "*Constraints to increasing agricultural productivity in Nigerian: a review.* Nigeria Strategy Support Program (NSSP) background paper No. 6.

Shittu, A. I. (2012). *Financial intermediation and economic growth in Nigeria;* centre for enterprise innovation and development, Soochow University, east campus, 50 Donghuan Road, Suzhou, Jiangsu Province, China.

Sunny, I. O. (2013). The impact of commercial banks' credit to agriculture on agricultural development in Nigeria: an econometric analysis. Department of Banking/Finance Imo State Polytechnic, Umuagwo. *International Journal of Business, Humanities and Technology vol. 3 no. 1; January 2013* 85

Ugwu, C.M. (2010). *Commercial bank credit and agricultural output in Nigeria (1982-2007:* Department of economics faculty of management and social science Caritas University, Amorji-nike, Emene, Enugu.

World Bank (2007). *Human development report.* The World Bank Washington D.C

World Bank (2014). Nigeria; Overview. The World Bank Washington D.C *Retrieved from: www.worldbank.org/country/nigeria*.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is the system of methods followed in a particular discipline, the branch of philosophy that analyzes the principles and procedures of inquiry in a particular discipline. It is a science of studying how research is to be carried out. Essentially, it is the procedures by which researchers go about their work of describing, explaining and predicting phenomena. It is also defined as the study of methods by which knowledge is gained. Its aim is to ascertain and organize the tools utilized for the research study. This chapter thus discusses the research design, methods of collecting data, method of data analysis and model specification.

3.2 Research Design

Research design means the structuring of investigation aimed at identifying variables and their relationships to one another. This is used for the purpose of obtaining data to enable the researcher test hypothesis or answer research questions (Nnamdi, 2006). The study made use of correlational research design. The purpose of correlational research is to determine the relations among two or more variables. The design is appropriate because of its convenience in the study and it predicts a statistical relationship between two or more variables such that systematic changes in the value of one variable are accompanied by systematic changes in the other.

3.3 Data and Method of Data Collection

Secondary source of data was used in the study because of the nature of the study which is an analysis of the contribution of the agricultural Credit Guarantee Scheme (ACGS) to the national economy, taking GDP as proxy for economic growth. Data that had been generated are required for this type of study. The time series data cover 34 years ranging from 1981-2014. The purpose of choosing this period is to empirically test the significance or the extent to which ACGS loans contributes to the economic growth after the sector suffered several years of neglect, and the renewal of effort by Government towards stabilizing the agricultural sector through the scheme. The data was obtained from various publications of Central Bank of Nigeria (CBN).

3.4 Techniques of Data Analysis

The method of data analysis is the Ordinary Least Square (OLS) Multiple Regression Model (MRM). Data estimation was carried out using IBM Statistical Package of Social Sciences (SPSS), version 20 and results analyzed using the values of the Pearson correlation coefficients, coefficient of determination (R^2), and the coefficients of the independent variables – the t-test or t-statistics.

3.4.1 Model Specification

According to Gujarat (as cited by Udonsah, 2012) an econometric investigation begins with the specification of the econometric model underlying the phenomenon of interest. Also, Asogwa (as cited by Udonsah, 2012) posit that specification of a model generally is a function of the theoretical relationship between or among variables, the nature of study objectives and type of data. This has to do with expressing the model in mathematical and econometric form which would be used to explore the economic phenomenon. As earlier mentioned, our independent variables are derived from the credit guarantee funds under the Agricultural Credit Guarantee Scheme (ACGS) in Nigeria and

Economic growth is proxy by Gross Domestic Product (GDP), thus constitute our dependent variable. This study made use of Multiple Regression Model (MRM) and to enable us specifying a model that would relate all the independent variables and the dependent variable in the model, the research questions are collapse into one null hypothesis as follows.

H0: There is no significant impact of ACGS loans to Individual Farmers (LIF), ACGS loans to Informal Groups (LIG), ACGS loans to Cooperatives (LCO), ACGS loans to Companies (LCY) on Gross Domestic Product (GDP) in Nigeria.

Our general model is thus stated as follows:

$$Y = f(X_1, X_2, X_3, X_4)$$

Where: Y = Gross Domestic Product (GDP)

X_1 = ACGS loans to individual farmers (LIF)

X_2 = ACGS loans to informal groups (LIG)

X_3 = ACGS loans to cooperatives (LCO)

X_4 = ACGS loans to company (LCY)

The linear form of the regression model is expressed as:

$$Y = \beta o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$$

Where: Y = Gross Domestic Product (GDP)

$\beta_1, \beta_2 \ldots \beta_4$ = Independent variables coefficient or parameters for LIF, LIG, LCO, LCY.

βo = The intercept which represents the expected value of the dependent variable (GDP) when all the independent variables assumed zero as value.

μ = Random or stochastic error term

In order to capture the link between the explanatory variables (LIF), (LIG), (LCO), (LCY) and their impact on the dependent variable (GDP), the following model is specified to empirically explain the effect of the independent variables on economic growth (GDP).

$$GDP = \beta o + \beta_1 LIF + \beta_2 LIG + \beta_3 LCO + \beta_4 LCY + \mu$$

Where: GDP = Gross Domestic Product

LIF = Loan under ACGS to Individual farmers

LIG = Loan under ACGS to Informal Group

LCO = Loan under ACGS to Co-operative

LCY = Loan under ACGS to Company

$\beta_1, \beta_2, \beta_3, \beta_4$ = Independent variables coefficient, that is, the parameters for LIF, LIG, LCO, and LCY.

βo = Intercept of GDP when the explanatory variables are equal to zero. $\beta_1, \beta_2, \beta_3, \beta_4$ = coefficients of explanatory variables.

μ = Random or error term

The apriori expectations with respect to signs are $\beta_o > < 0$, $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$ and $\beta_4 > 0$

CHAPTER FOUR

DISCUSSION AND FINDINGS

4.1 Data Presentation

Data presented in this chapter are secondary source of data. Secondary source of data was used in the study because of the nature of the study which is an analysis of the contribution of the agricultural sector to the national economy, taking GDP as proxy. Data that had been generated are required for this type of study. The time series data cover 34 years ranging from 1981-2014. The purpose of choosing this period is to empirically test the significance or the extent to which agricultural sector contributes to the economic growth despite several years of Government neglect and the renewal of effort towards stabilizing the sector, since 1986 to date. The data were obtained from the Central Bank of Nigeria (CBN) statistical bulletin of various years.

Table 4.1: Cumulative Loans Guaranteed under ACGS Operations from 1981 to 2014 - Category Basis [AMT: =N= ('000)]

Year	GDP at current price (Y)	Loans under Agricultural Credit Guarantee Scheme (ACGS) to:			
		Individual Farmers (LIF) X_1	Informal Groups (LIG) X_2	Cooperatives (LCO) X_3	Company (LCY) X_4
1981	47,619.7	17,813.4	-	796.1	17,032.9
1982	49,069.3	16,117.7	-	474.0	15,172.2
1983	53,107.4	14,197.8	-	609.9	21,449.8
1984	59,622.5	9,853.9	-	377.0	14,424.0
1985	67,908.6	19,407.7	-	702.0	24,133.9
1986	69,147.0	25,643.3	-	1,099.1	41,675.0
1987	105,222.8	54,897.2	-	4,379.0	42,876.3
1988	139,085.3	80,078.9	-	4,166.3	34,365.8
1989	216,797.5	104,329.0	-	4,677.8	20,293.5
1990	267,550.0	86,213.3	-	5,933.5	6,347.6
1991	312,139.7	69,932.9	-	5,338.7	6,835.8
1992	532,613.8	75,549.1	-	6,858.3	5,624.4
1993	683,869.8	68,257.9	-	9,048.5	3,538.4
1994	899,863.2	86,451.9	-	9,000.1	7,734.0
1995	1,933,211.6	132,778.3	-	19,285.8	12,098.0
1996	2,702,719.1	179,824.7	-	34,425.4	11,252.4
1997	2,801,972.6	184,686.0	7,516.5	34,379.0	15,456.7
1998	2,708,430.9	190,305.2	1,705.0	8,960.0	14,727.0
1999	3,194,015.0	193,501.0	1,351.0	42,325.5	8,905.0
2000	4,582,127.3	324,187.4	9,995.0	22,928.0	4,340.0

2001	4,725,086.0	727,945.4	-	100.0	500.0
2002	6,912,381.3	1,025,575.8	10,594.0	14,170.0	1,250.0
2003	8,487,031.6	1,106,456.4	30,774.0	16,230.0	11,000.0
2004	11,411,066.9	2,017,344.7	21,180.0	31,620.0	13,600.0
2005	14,572,239.1	2,969,096.7	20,036.5	38,537.3	19,068.0
2006	18,564,594.7	3,984,895.5	82,661.0	171,963.8	23,540.0
2007	20,657,317.7	4,145,410.5	228,200.0	27,751.3	24,500.0
2008	24,296,329.3	6,157,288.4	289,219.0	165,475.0	109,092.2
2009	24,794,238.7	7,495,288.3	128,674.0	586,992.0	138,555.0
2010	33,984,754.1	7,370,945.6	43,274.0	249,703.1	76,585.0
2011	37,543,654.7	9,375,403.9	384,641.0	305,171.4	124,388.0
2012	40,544,099.94	9,128,295.3	27,987.0	267,309.5	283,169.3
2013	80,092,563.38	8,673,464.9	181,535.0	372,810.0	196,640.0
2014	89,043,615.26	9,977,834.2	160,872.0	400,860.0	130,600.0
Total		**76,089,272.2**	**1,630,215.0**	**2,864,457.4**	**1,480,770.2**

Source: Development Finance Offices Coordination Office, Development Finance Department, Central Bank of Nigeria (CBN) 2014.

Table 4.1 above shows that out of the total value of N82,064,714.8 loans given to the sector, Individual farmers received N76,089,272.2, Informal Group N1,630,215.0; Co-operative N2,864,457.4 and Company N1,480,770.2. In other words, Individual Farmers received 92.7%, Informal Group 2.0%, Co-operative 3.5% and Company 1.8% respectively.

4.2 Analyses of Data

The empirical results obtained from the regression estimation were interpreted using; the Pearson correlation coefficient which serves to measure the strength of linear relationship between variables, the t-test coefficient of the independent variables which attest to the individual significance of the independent variables and the coefficient of determination, otherwise referred to as adjusted R square (R^2).The respective results are shown and analyzed below.

Table 4.2 Pearson Correlation Coefficient Matrix of Variables

	GDP	LIF	LIG	LCO	LCY
GDP	1.00				
LIF	.901	1.00			
LIG	.630	.755	1.00		
LCO	.805	.895	.614	1.00	
LCY	.768	.855	.521	.792	1.00

Dependent variable: GDP
Source: Researcher's computation using IBM SPSS Statistics 20; 2015.

The above table shows that the correlation coefficients of all the variables are high. This indicates that there exists a strong linear relationship between them. In other words, there is the existence of strong linear relationship between GDP and the independent variables; ACGS loan to individual farmers (LIF), Informal Group (LIG), Co-operative (LCO) and Company (LCY). Also, there exists a strong relationship between the independent variables (LIF, LIG, LCO and LCY). The least between the dependent and independent variables is that of GDP and ACGS loan to Individual Group (LIG) which stood at .630; and between the independent variables is LIG and LCY which stood at .521; this represent a linear relationship of 63% and 52.1% between GDP and independent variables; and between independent variables respectively.

On the other hand, the highest linear relationship viz-a-viz GDP and the independent variables is .901, indicating a 90.1% linear relationship. This relatively high correlation coefficients between the variables above, indicate that a strong linear relationship exist between ACGS loans and Economic Growth (GDP) in Nigeria.

4.3 Test of Hypothesis

The regression results were analyzed using the t-test coefficients which attests to the significance of each of the independent variables and the coefficient of determination, otherwise referred to as adjusted R square (R^2) which measures the proportion of variation explained by the independent variables in the regression model. These empirical results which were employed to explain and test the Null hypothesis formulated are presented in Tables 4.3, and 4.4 below.

Table 4.3 Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	68625.970	2079720.706		.033	.974
	LIF	7.097	1.776	1.103	3.996	.000
	LIG	-32.470	30.308	-.141	-1.071	.293

	LOC	-5.891	27.114	-.040	-.217	.830
	LCY	-23.939	55.821	-.070	-.429	.671

a. Dependent Variable: GDP

Source: Researcher's computation using IBM SPSS Statistics 20; 2015.

Table 4.4 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.905[a]	.818	.793	9837900.706 64104800000	.856

a. Predictors: (Constant), LCY, LIG, LOC, LIF

b. Dependent Variable: GDP

Source: Researcher's computation using IBM SPSS Statistics 20; 2015.

4.4 Discussion of Findings

The empirical results obtained from our regression estimation shows that the co-efficient of ACGS loan to individual farmers (LIF) which stood at 3.996 is the best in the model, which indicates that ACGS loan to individual farmers impacted significantly on economic growth (GDP). The positive sign of the LIF coefficient is in conformity with apriori expectation which explains that ACGS loan to individual farmers is required and plays an important role in the production of agricultural products (goods and services) both for subsistence and commercial purposes respectfully. This impact may not be unconnected with the concentration of ACGS loans on individual farmers (see table 4.1); that is, the cumulative size of loans received within the period of study (92.7% out of

100%). In this regard, this finding agrees with the conclusion of Nwankwo (2013) that the size of loans to the agricultural sector has significant impact on economic growth (GDP) in Nigeria.

On the other hand, the coefficient of the variables of ACGS loan to Informal Groups (LIG), Co-operatives (LCO), and Companies (LCY) from the empirical result showed negative signs of -1.071, -.217 and -.429 respectively. This evidence with respect to these variables did not conform to apriori expectation, which means that they do not have significant impact on GDP. It appears these results may be reflecting the negative impact of underfunding or lack of appropriate funding of ACGS loan to the affected categories.

A critical look at table 4.1 shows that out of the total value of N82,064,714.8 loans given to the sector which in the period under review, Individual farmers received N76,089,272.2, Informal Group N1,630,215.0; Co-operative N2,864,457.4 and Company N1,480,770.2. In other words, Individual farmers received 92.7%, Informal group 2.0%, Co-operative 3.5% and Company 1.8% respectively. This indicates that funds were not well distributed to all categories in the sector; the three categories (Informal Groups, Co-operatives and Companies) received marginalized funding when compared with the category of Individual Farmers. Olaitan (2006) reiterated that the lack of access to credit (finance) impedes growth amongst farmers in Nigeria, making them to be endangered species. He therefore, called for transformative efforts to address the problem.

As earlier mentioned above, a large proportion of the rural population depends on agriculture for their main source of sustenance and livelihood, yet the supplies of credit still leave a wide gap of rural access to finance. This means that, the lack of access to finance create a socio-economic problem for agricultural development; which affect the overall growth of the economy. The ACGS fund were provided to make access to finance much easier and accessible, since it guarantees credit facilities from the bank to farmers at 75 percent of total fund borrowed without any security, which is expected to contribute to improve the livelihoods of farmers (all categories; whether subsistence or commercial), and emerging entrepreneurs in the agriculture sector. It is pertinent to state that this expectation is yet to be fully realistic judging from the underfunding experienced by the three categories in the agricultural sector as shown in table 4.1 above.

Generally, the regression analysis results appear to suggest that ACGS loans to Informal groups (LIG), Co-operatives (LCO) and Companies (LCY) are not relevant in formulating policies that may impact significantly on the growth of GDP in Nigeria. Though the three variables from the analysis appear not to have significant impact, but obviously show the effect of the small size of loans received (7.3% out of 100%) within the period (1981-2014). This result therefore agrees with conclusion of Nwankwo 2013, that the size of loan influences the level of impact a variable can have on economic growth.

However, the coefficient of determination otherwise known as R square (R^2) which gives information about the goodness of fit of the model stood at .818. This indicates that the explanatory variables were able to explain 81.8% of the dependent variable; approximately, the explanatory variables such as LIF, LIG, LCO and LCY explained 82% of the dependent variable (GDP).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, RECOMMENDATION, CONTRIBUTION TO KNOWLEDGE AND RECOMMENDATION TO FURTHER STUDIES

5.1 Summary of Findings

This research study is an empirical analysis of the Agricultural Credit Guarantee Scheme (ACGS) and Economic Growth in Nigeria from the period of 1981 to 2014. This study examined the impact of ACGS on economic growth (GDP) using the endogenous components of Scheme: such as ACGS category based loans to Individual Farmers (LIF), Informal Group (LIG), Co-operative (LCO), and Company (LCY) as explanatory variables. Data for the empirical estimation were sourced from CBN statistical bulletin of various years' editions; presented first in a tabular form and the regression estimation was carried out using IBM SPSS statistics 20.

Generally, the results (findings) from the empirical analysis reveal that only the parameter of the explanatory variable of ACGS loans to individual farmers (LIF) conforms to apriori expectation. This conformity indicates that ACGS loans via the variable (LIF) have significant impact on Economic Growth proxy by Gross Domestic Product (GDP) in Nigeria. This impact may not be unconnected with the concentration of ACGS loans on individual farmers (see table 4.1); that is, the total size of loans received within the period of study (92.7% out of 100%). Three of the parameters of the explanatory variables, LIG, LCO and LCY counter apriori expectation; which indicates that they do not impact significantly on GDP (Economic Growth). This poor performance of the three variables could be a reflection of poor funding or lack of access to adequate finance as shown in the figures presented in table 4.1. Though the three variables from the analysis appear not to have significant impact, but obviously show the effect of the small size of loans received (7.3% out of 100%) within the period (1981-2014). Notwithstanding, the R^2 coefficient of the model stood at .818 which indicate that the explanatory variables explained 81.8% of the dependent variable (GDP).

Also, the Pearson correlation coefficient which serves to measure the strength of linear relationship between variables indicates a strong linear relationship between the variables of Agricultural Credit Guarantee Scheme (LIF, LIG, LCO and LCY) and the variable of Economic Growth proxy by Gross Domestic Product (GDP).

5.2 Conclusion

In conclusion, the empirical findings (t-test) shows that only ACGS loans to individual farmers (LIF) has significant impact on economic growth (GDP); which means that only loans to individual farmers are relevant in formulating policies that can boost growth in Nigeria's economy. The other variables of Agricultural Credit Guarantee Scheme (ACGS); LIG, LCO and LCY has no significant impact on Economic Growth as they counter apriori expectation with negative signs.

However, the Pearson correlation coefficient reveals that the variables have strong linear relationship; this means that there is a positive relationship between the variables [between Agricultural Credit Guarantee Scheme (ACGS) loans represented by LIF, LIG, LCO, LCY and Economic Growth proxy by Gross Domestic Product (GDP)]. This therefore affirms that Agricultural Credit

Guarantee Scheme (ACGS) is a relevant tool for Economic Growth in Nigeria. These findings though are limited to Nigeria but have implication for global economy.

5.3 Recommendations

Based on the above findings, we strongly recommend that more loanable funds should be made available to individual farmers (especially commercial farmers), as ACGS loans to individual farmers impact significantly on economic growth (GDP) in Nigeria.

Also, it is the view of the researcher that the poor performance of the three variables (LIG, LCO and LCY) may be a reflection of poor funding or inadequate financing by the ACGS (see table 4.1 above). In this regard, more funds should be made adequately available and more easily accessible to especially categories of Cooperatives (LCO), and Companies (LCY) as this will increase the loan sizes of the affected categories to impact significantly on GDP in the long-run.

Furthermore, all economic stakeholders, monetary and regulatory authorities; both at the public and private sector of the economy should combine efforts and formulate policies aimed at improving financial inter-mediation, in the area of providing adequate credit to farmers in Nigeria in order to achieve favourable productive-based economy and viable growth of GDP. Policy formulation in this regard should be carried out with more effective implementation, constant monitoring, and control measures which should ensure the use of very strict sanctions on erring operators particularly with respect to credit allocation. This will encourage more farmers to delve into commercial agriculture which will in no small measure improve export earnings for the sector, as well culminate to growth in the sector's contribution to GDP in Nigeria.

5.4 Contribution to Knowledge

This study has contributed to the body of knowledge in the following key ways. This study analyzed the economic impact of Agricultural Credit Guarantee Scheme (ACGS) in Nigeria; using an extensive period of 34 years (1981-2014). Hence, the study has provided current information on Agricultural Credit Guarantee Scheme vis-à-vis the economic growth which covers the time lag of previous related studies.

Also, the study has provided knowledge on the Agricultural Credit Guarantee Scheme (ACGS) funding on category based, and discovered that only ACGS loans to the category of individual farmers impact significantly on economic growth (GDP) due to concentration of loans to the said category in Nigeria.

5.5 Recommendation for Further Studies

This research is on the Agricultural Credit Guarantee Scheme and Economic Growth in Nigeria. Result of the finding shows that three of the variables countered apriori expectation. This in the view of the researcher may be a reflection of poor or inadequate funding to the three categories of farmers for the period of this study. However, the researcher suggests that further study may be carried out because research is a process.

References

Abdullahi, F.A. (2002). *Spectrum memory guide, agricultural science for senior secondary certificate examination.* Ibadan: Spectrum books limited.

Akiri, E.S. & Adofu I. (2007). Interest rate deregulation and investment in Nigeria: *Journal of Economic Management Studies, 2(1).*

Anyanwu, C.M. (2004). *Microfinance institutions in Nigeria; policy, practice and potential*: Paper presented at the G24 workshop on constraints to growth in Sub Saharan Africa. Pretora, South Arica, November 29-30

Awoke, M. U. (2004). Factors affecting loan acquisition and repayment patterns of small holder farmers in Ika North West of Delta State, Nigeria. *Journal of Sustainable Agricultural Resources, 9*, 61-64.

Beck, T. & Demirguc-Kunt, A. (2006). Small and medium-size enterprises: access to finance as a growth constraint. *Journal of Banking & Finance,* **30**, 2931-2943.

Central Bank of Nigeria (2000). The changing structure of the Nigerian economy and implications for development. Research department Abuja:

Central Bank of Nigerian publications. Retrieved from: http://www.cenbank.ort/out/publications/statbulletin/rd/2000/stabull.

Central Bank of Nigeria (2003). Agricultural development: issues of sustainability. In: OJ Nannna, SO Alade, EO Odoko (Eds.): *Cotemporary Economic Policy Issues in Nigeria.* Abuja: CBN Publications, pp. 185-222.

Central Bank of Nigeria (2007). *Agricultural finance policies in Nigeria:* Paper presented at the 3rd AFRACA Agribanks Form: Africa value chain financing" held in Nairobi, Kenya, 16-19 October.

Central Bank of Nigeria (2007). Statistical bulletin, Abuja: CBN publications. Retrievedfrom:*http://www.cenbank.ort/out/publications/statbulletin/rd/2007/stabull-2007.pdf*

Central Bank of Nigeria (2010). *Economic report for the first half.* Central Bank of Nigeria Corporate Head Office 33 Tafawa Balewa Way Central Business District P. M. B. 0187, Garki Abuja © 2010 Central Bank of Nigeria ISSN 1597 – 2976 *Website: www.cbn.gov.ng*

Central Bank of Nigeria (2014). Development Finance Offices Coordination Office, Development Finance Department, Central Bank of Nigeria (CBN) 2014. Retrieved from: *http://www.cenbank.ort/out/publications/statbulletin/rd/2014/stabull-2014.pdf*

Emeka, O.M. (2007). *Improving the agricultural sector toward economic development and poverty reduction In Nigeria.* CBN bullion, 4: 23-56. Faostat 2004.

Enya, V. E. and Alimba, J. O. (2008). Analysis of factors affecting the supply of commercial banks credit to the agricultural sector in Nigeria (1986-2005) *Continental J. Agricultural Economics 2: 74 - 77, 2008*

Food and Agricultural Organization (2006). *Rapid growth of selected Asian countries*; lessons and implications for agricultural and food security synthesis report. Bangkok: Regional office for Asia and the pacific.

Gurdenson, M., Glory, B.A. & Due, E. (2003). Profitability and agricultural lending relations. *Paper presented during the conference of American association of agricultural economics*, July 27-30. Canada.

IFPRI (International Fertilizer Production Research Institute) (2003). *IEHA analysis and knowledge management system (AKMS):* Results from the first technical group meeting, (14-16th January 2003). IFPRI, IITA, ILRI, IFDC technical group. Washington D.C. USA: IFPRI.

Isiorhovoja, R.A. (2013). Patterns in agricultural loans under the Agricultural Credit Guarantee Scheme in Nigeria. *Meditterranean journal of social sciences, 4*(1), 497-502.http://dx.doi.org/10.5901/mjss.2013.v4n1p497

Kehinde, A. A. (2012). *Agricultural financing in Nigeria:* An assessment of the Agricultural Credit Guarantee Scheme Fund (ACGSF) for food security in Nigeria (1978-2006). Department of banking and finance, school of business, college of development studies, Covenant University, Ota, Nigeria

Loayza, N., Levine, R. & Beck, T. (2000). Financial intermediation and growth: causality and causes. *Journal of monetary economics*, *vol. 46 (1)*, *31-77.*

Mallik, G. (2008). “Foreign aid and economic grwoth: a cointegratian analysis of the six poorest African countries”. *Economic analysis and policy,* vol. 38. No.2, Pp 251-260.

Musa, A., Olasupo, 1., Afolami, C. A. & Adebayo, M. S. (2014). *Impact of the Interest Drawback Programme (IDP) on loan repayment under the Agricultural Credit Guarantee Scheme (ACGS)*. Department of agricultural economics and farm management, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria

Navajas, A.R. (2001). Credit guarantee schemes conceptual framework: financial system development project. *Technical bulletin No.1 Bolivia – June Publication of GTZ/FONDESIF*

Nnamdi, A. (2000). *Research methodology in the behavioural science s.* 6th ed. (Lagos: Longman Nigeria plc 2006) pp. 27.

Nwachukwu I. (2008). *Empirical assessment of Nigeria's agricultural export and economic welfare.* Munich Personal Repec Archive (MPRA).

Nwankwo, O. (2013). Agricultural financing in Nigeria: An empirical study of Nigerian Agricultural Co-operative and Rural Development Bank (NACRDB): 1990-2010 Department of banking and finance Kogi State University, Anyigba, Kogi Sate, Nigeria. *Journal of management research 2013, vol. 5, No. 2* Retrieved from: *http://www.macrothink.org/jmr*

Nzotta, S.M. & Okereke, E.J. (2009). Financial deepening and economic development of Nigeria: An empirical investigation. *African journal of accounting, economics, finance and banking research,* **5**(5), 55–66.

Obansa, S. A. J. & Maduekwe, I. M. (2013). Agricultural financing and economic growth in Nigeria. *European scientific journal* January 2013 edition vol.9, No.1 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431

Ojo, A. T. (2002). The future of community banks in Nigeria. *First Bank of Nigeria plc quarterly review,* 2: 45-61.

Oladeji, S. I. (2004). Food insecurity bane to sustainable development in Nigeria. *Journal of economic and financial studies*, 1(2): 43-58.

Olaitan. M.A. (2006). Finance for small and medium enterprises: Nigeria's Agricultural Credit Guarantee Scheme Fund. *Journal of international farm management, 3(2), Retrieved from*: http://www.ifadonline.org.

Olowu, A. U. (2011). Agricultural financing and performance in Nigeria: A case study of the Agricultural Credit Guarantee Scheme (ACGS): *Research report University of Stellenbosch* Retrieved from: *http://www.scholar.sun.ac.za/handle/10019.1/8532;*

Onugu, C.U. (2000). *The development role of community banks in rural Nigeria.* Development in practice, 10(1), 102-107

Philip, D., Nkonya, E., Pender, J. & Oni, O. A. (2009). "*Constraints to increasing agricultural productivity in Nigerian: a review.* Nigeria Strategy Support Program (NSSP) background paper No. 6.

Rhaji, M. A. (2008). An analysis of the determinants of agricultural credit approval/loan size by commercial banks in south-western Nigeria. *Nigeria agricultural development studies, 1*(1), 17-26.

Shepherd, W.G. (2002). *Market power and economic welfare*. New York: random house.

Shittu, A. I. (2012). *Financial intermediation and economic growth in nigeria;* centre for enterprise innovation and development, Soochow University, East Campus, 50 Donghuan Road, Suzhou, Jiangsu Province, China.

Sunny, I. O. (2013). The impact of commercial banks' credit to agriculture on agricultural development in Nigeria: An econometric analysis. Department of Banking/Finance Imo State Polytechnic, Umuagwo *International journal of business, humanities and technology vol. 3 No. 1.*

Udonsah, I. l. (2012). *The impact of interest rate on investment decision in Nigeria. an econometric analysis* (1981-2010) Department of economics faculty of management and social sciences Caritas University Emene, Amorji-nike Enugu State August, 2012

Ugwu, C.M. (2010). *Commercial bank credit and agricultural output in Nigeria (1982-2007:* Department of economics faculty of management and social science Caritas University, Amorji-nike, Emene, Enugu.

Wikipedia, the free encyclopedia: *Economy of Nigeria*. Retrieved from: *http://en.wikipedia.org/wiki/economyofnigeria*.

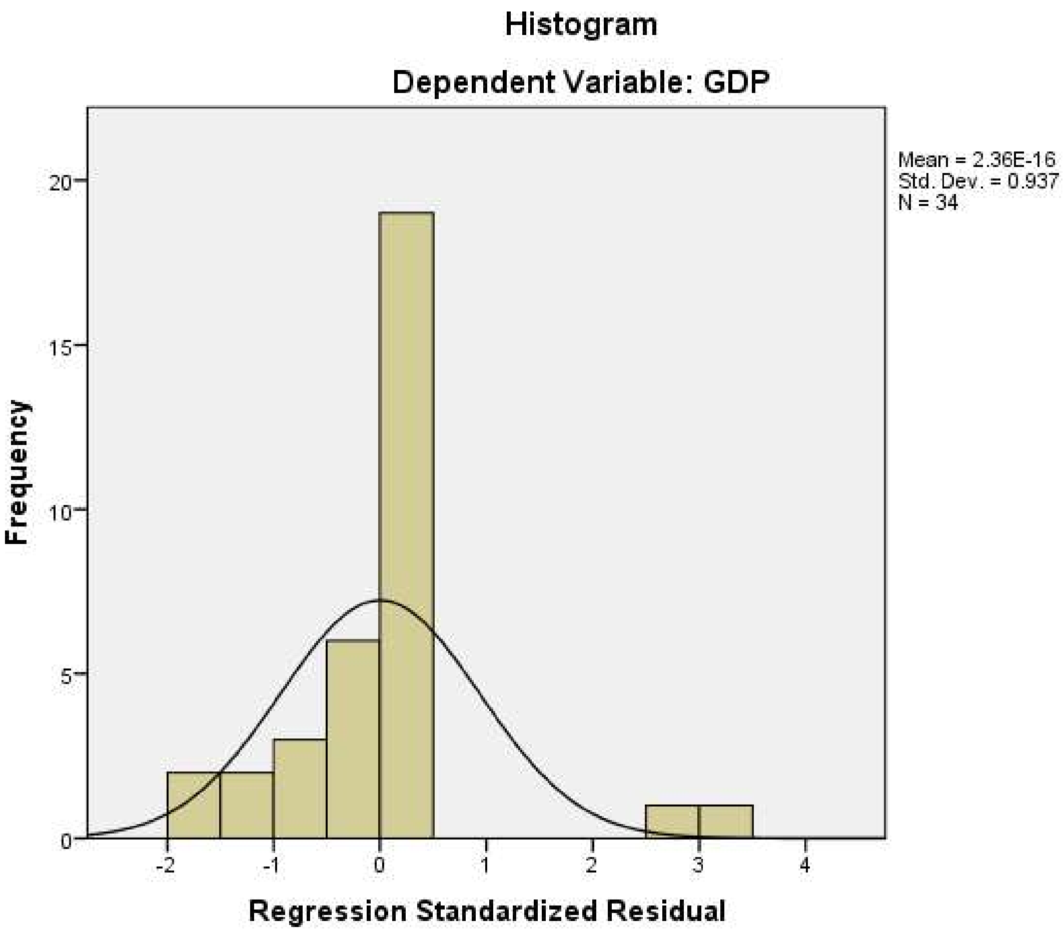
Wikipedia, the free encyclopedia: *Research design*. Retrieved from: *http://en.wikipedia.org/wiki/researchdesign*.

World Bank. (2007). *Human development report.* The World Bank, Washington, D.C. Retrieved from: *http//:www.worldbank.org/country/nigeria*.

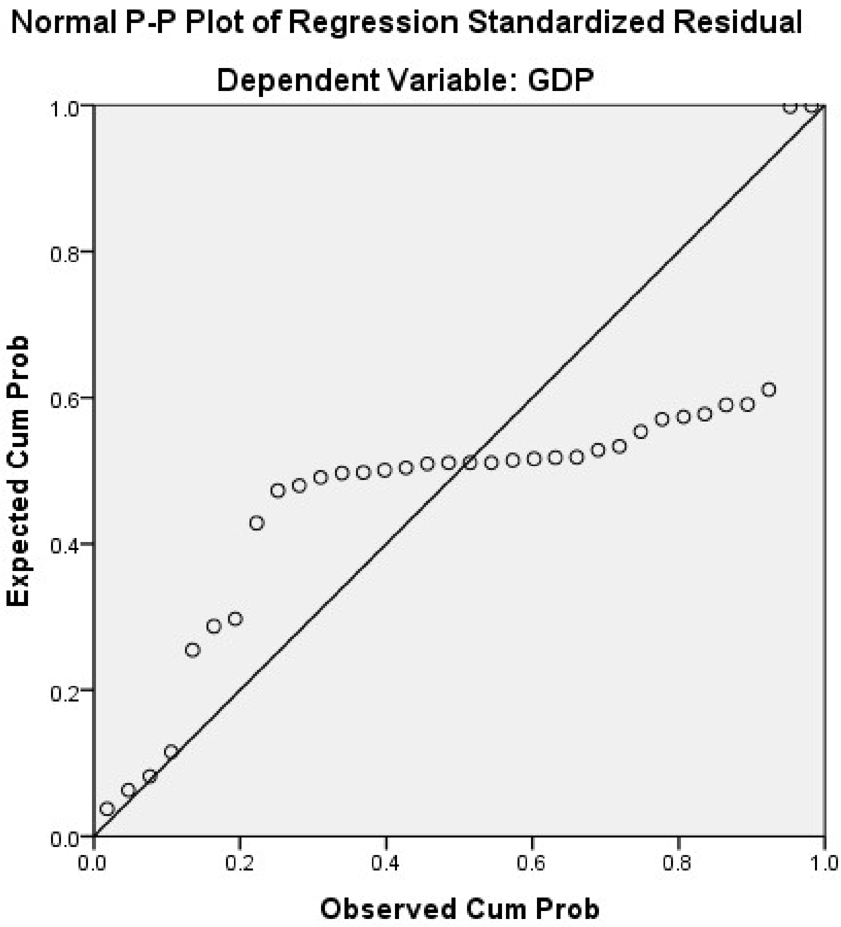
World Bank (2014). Nigeria; Overview. The World Bank Washington D.C Retrieved from: *http//:www.worldbank.org/country/nigeria*.

APPENDIX I

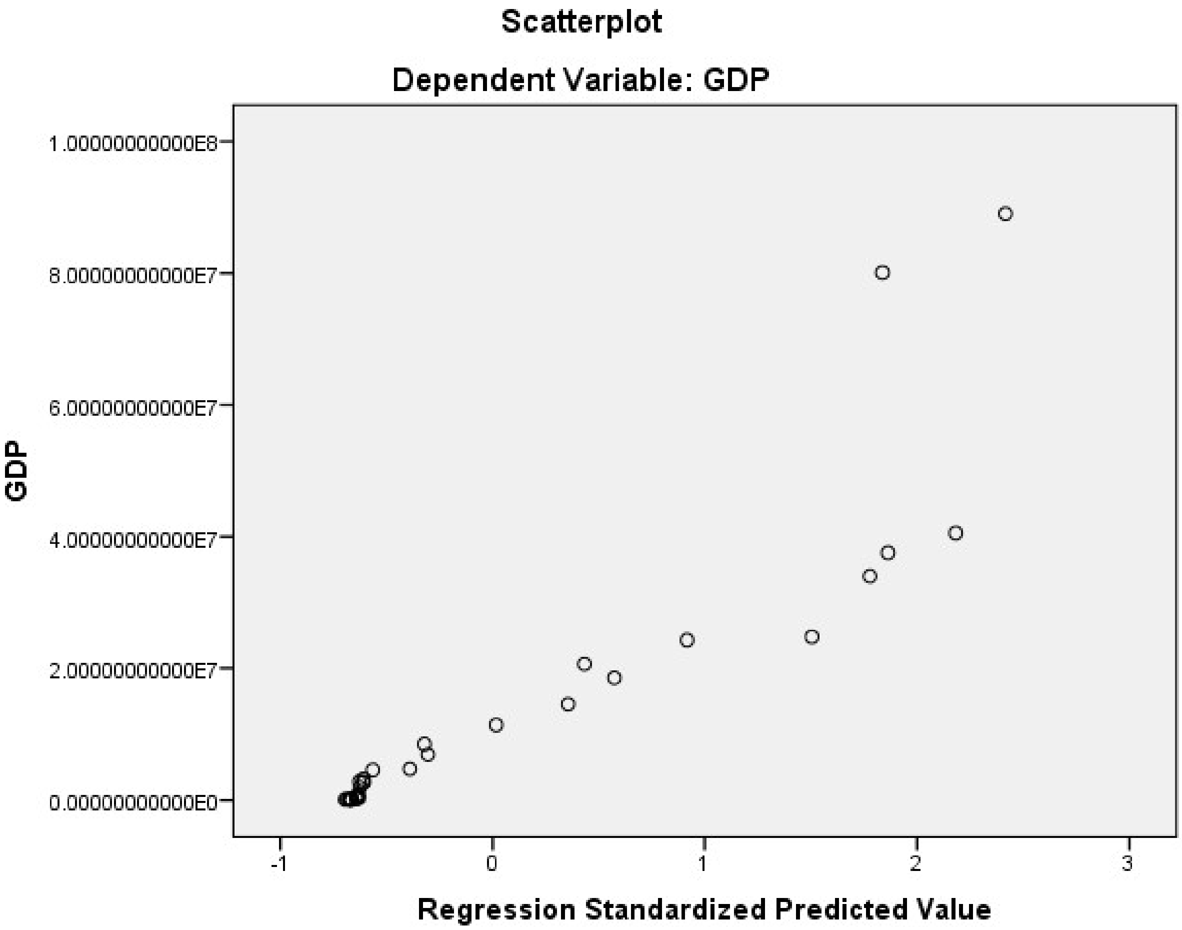
Charts


Histogram
Dependent Variable: GDP
Mean = 2.36E-16
Std. Dev. = 0.937
N = 34
Frequency
0
5
10
15
20
-2
-1
0
1
2
3
4
Regression Standardized Residual

APPENDIX II



APPENDIX III


Scatterplot
Dependent Variable: GDP
1.00000000000E8
8.00000000000E7
6.00000000000E7
4.00000000000E7
2.00000000000E7
0.00000000000E0
GDP
-1
0
1
2
3
Regression Standardized Predicted Value