# DEVELOPMENT FUND MANAGEMENT AND AGRICULTURAL PROJECTS IN NIGERIA: THE NACRDB CASE, GOMBE

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**Abstract**
*Good agricultural development is a key index to self sufficiency of any country and efficient development fund management supplies the bedrock of such efforts. Here, the relationship between the efficiency of fund management and agricultural productivity in Gombe state is examined to establish the nature and quality of the relations that exist between funds management and quality and quantity of outputs. The methodology is the survey method, based on the population that consists of the entire agricultural business owners in Gombe local government market used to answer the research questions. Relational analyses were carried out in Statistical Software for Social Sciences (SPSS version 22). Some of the results showed that the relationship between Agricultural Productivity (AP) and independent variable, Government Fund Allocation (GFA) is positive and strong; the relationship between AP and independent variable, Challenges of Accessing Loan (CAL) is positive and weak; the relationship between AP and independent variable ASF (Alternate Sources of Funding) is positive and strong as well as many other findings. Based on these findings, the study recommends that Government should ensure effective and efficient fund management in agricultural sectors which will manifest largely in the economic growth and development of the nation.*
**Key Words:** *Development fund, Financial management, Agricultural Development.*

## INTRODUCTION

In the pursuit of growth and development, there are key ministries that nations seek self-sufficiency and sustainability in them in order to have a guaranteed pursuit of growth and development. These are agriculture, education, health and manufacturing (wealth creation). Agricultural finance helps in the aspect of acquisition and utilization financial capital for the development of agriculture. Financing is important in agriculture in that it facilitates the acquisition of other resources - land, labour, capital, and entrepreneurship. Agriculture remains the lifeblood of many economies, so the financial institutions serving the agricultural sector of the economy are all involved in this.

Financing agricultural development is laden with many problems in developing countries, especially because of the high risk factor of its products and the unattractive nature of the sector to insurance companies. Lack of finance is regarded as the greatest limiting factor causing the development of agriculture in Nigeria to struggle. As a consequence it is the reason that the eradication of extreme poverty and hunger is still a mirage. Chandavarker (2022) says "one of the basic problems facing Nigeria is the scarcity of domestic capital relative to the size of investment required to achieve high and self-sustaining rates of growth of national and per capital income.

Finance in an economy, is basically from two (2) main sources – savings and borrowings. Borrowings are the uses of other people's monies for investment purposes, while savings are a direct source of financing in an economy; credits (borrowings) are an indirect source. Today, the amount of equities are not enough to sustain the expected productivity of agriculture to meet the increasing needs of nations, either individually or corporately. It is therefore, apparent that borrowing, (or agricultural credits) is one of the popular sources of financing for agriculture, just like any other commercial venture. The World Bank (1975) has recognized that credits constitute the largest component of its agricultural lending. It is the duty of the financial institutions as financial intermediaries to intermediate efficiently between the savings unit and the investing units to sustain continuous availability of borrowings (credits).

The sector has failed to ensure food security in the country and the ridiculously high food import bill, (Ogunbodede, 2011) attest to this. Financing food security has become the most intractable challenge for governments and about a billion people experience hardship that hunger imposes. More than 35% of the population in Nigeria goes hungry. Food imports (especially cereals) rose to 190m metric tons in 2020, from 90m metric tons in 1990. The food import bill of Nigeria has been $4bn (about N630 bn) yearly of which, in the year 2010 alone, rice importation bill was USD1bn (i.e. N155 bn) – a quarter of it! wheat $1.1bn (N165 bn), fish $ 0.7bn (N105 bn), sugar $0.4bn (N60bn), and so on, (CBN, 2010). By 2012, Nigeria's annual import bill on rice alone has exceeded $2.0bn (N365bn, i.e. N1bn daily!). It is said that a strong and efficient agricultural system should ensure, adequate food security for the growing population, generate employment, provide enough raw materials for the industries and sustain a balance of payment equilibrium.

**Research Questions**

Questions needing answers in this study are;

1. To what extent has government fund allocation gone in boosting agricultural productivity among farmers in Gombe local government?
2. To what extent do the challenges of accessing loans affected farmers in various agricultural projects in Gombe local government?
3. To what extent has agricultural finance assisted the development of agricultural projects in Gombe local government?
4. To what extent has the efficiency of development fund management affected the growth of agriculture businesses in Gombe local government?

**Research Hypotheses**

Based on the objectives of the study, the following null hypotheses (H0) were formulated:

**$H0_1$** There is no significant relationship between the availability of allocatable government fund and agricultural productivity.

**$H0_2$** Identification of challenges of assessing project has not significantly affected farmers in various agricultural projects in Gombe local government.

**$H0_3$** There has not been any significant assistance of agricultural finance on agricultural projects in Gombe local government.

**$H0_4$** The efficiency of development fund management has not significantly led to the growth of agricultural businesses in Gombe State.

## LITERATURE REVIEW

Agriculture in the country is a source of livelihood for more than 86 per cent of rural people in Nigeria and most sub-Saharan Africa. Financing investment in agriculture has remained rare, even for large investors. In Nigeria, less than 1 per cent of commercial lending has been given to the agriculture sector (IFC, 2013). Financial institutions are reluctant to accept the risks prevalent in the agricultural sector, such as droughts, floods, pests and diseases, or the transaction costs of covering large geographical distances. Incentives to financial institutions to lend to the sector have not helped. Consequently, although governments are now making efforts to attract investments into agriculture, the lack of understanding of the financial risks and opportunities in agriculture or how to manage finances therein has deprived the sector of much-needed funds to boost production, processing and marketing.

**National Experience in Agric Finance**

Statistics still hold that over 60% of the Nigerian population is employed in agriculture and food activities (Chukwuma Sr, 2014), the government has made efforts to continually provide funding to the agricultural sector. Adequate or inadequate, the financial management of these funds has brought to light many questions of moral ethics, education and capacity and competence do revamp the sector, (Evbuomwan, 2016). Smallholder farmers dominate agriculture development in Nigeria. Therefore, it is in a crude state even as it

contributed only 32% to the GDP of the Nigerian economy in 2006, 32.71% in 2007, 32.85% in 2008, and 37.05% in 2009, 2.28% in 2019 (National Bureau of Statistics, 2017 & World Bank, 2018). These figures represent a decline in its contribution of 67.5% in 1957 (National Bureau of Statistics, 2017).

About 48% of the nation's workforce was engaged in agriculture in 2006, 49% in 2007, then to 44%, in 2008, 31% in 2010, and eventually 27% in 2015 (National Bureau of Statistics, 2017 & World Bank, 2014 and 2018). The restoration of agriculture in the country is thus paramount. Facilitating access to the various factors of production, especially credit (Fadeyi, 2014 and Osemene, 2011), as well as astute financial management, are very important.

**Agricultural Funding:**

There are institutional/ formal sources of agricultural finance in Nigeria which provide structured agricultural finances and these structured funds are often obtained majorly from three sources, which are the Government, Banks, and international agencies/countries.

**i. Government funding**

This provide the greatest hope for the development of agriculture and the overall economic progress of the country (Bezemer & Headey, 2008). Various tools, programmes and agencies for the purpose of boosting agriculture in the economy have been used but with no development in the sector. Declines instead have been recorded repeatedly in it. In 2013, only 1.7% of the whole budget was allocated to agricultural development. This declined in 2014 to 1.47%, then 0.90% in 2015 (Budget Office, 2018; World Bank, 2018). In 2016, there was minor improvement from 1.25 and 1.26% in 2017 to 1.38% in 2018. All of them still below the mandatory 10% budgetary allocation for agricultural as recommended in the 2015.

**ii. Bank Funding**

Though banks provide financing activities to farmers in the best of times, their percentage credits to the agricultural sector were only 3.5% in 2011.

**International donor funding**

There is a long history of international government's and donor agencies disbursing large amounts of funds on agricultural programs to Nigeria right down to the mid-1950s to the late-1980s, when the World Bank committed over $16 billion to these efforts, (Pardey, et al., 2016). But it has been found out that many of the beneficiaries of these funds, knowing that they might not be required to repay, have hardly invested them in farming activities (Akinola, 2013; Eluhaiwe, 2014). For instance, IFAD invested a total of $317.6 million in 10 projects in Nigeria (IFAD, 2018) between 2007-2009, and received agriculture related international aid of an average of $212.7 million. It was $205.7 million between 2010 – 2012, and as high as $348.9 million between 2013 – 2015 (National Bureau of Statistics, 2007; OECD, 2018). Efficiency in managing these funds and in monitoring them has been ethically poor.

**Agricultural Credit and Finance**

The agricultural lending market is made up of the participating financial institutions - deposit money banks (DMBs) and other financial institutions. According to the CBN (2000), the brief history of Bank credits to this sector in nominal terms, over the years have been thus; N230 million (then about $233 million) in 1978 to over N262 billion ($2.23 billion) in 2005, (CBN 2007). 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, as well as the high risk in the Nigerian environment, financially.

**Gombe Agricultural Development Project**

Projects executed from May 2011 to date under the ministry of Agriculture and water resources;

| | Project/Activity | Commencement Date | Completion Date |
|---|---|---|---|
| 1 | Desilting of primary and unlined canal, control flow devices, reservoir at Balanga dam Bridge and irrigation scheme (phase 1). | March 2012 | April 2012 |
| 2 | Small Hydropower Development at Balanga Dam (Civil component) | Feb 2012 | June 2012 |
| 3 | Clearing of Elephant grass and shrub in canals and embankments (127km), at Balanga irrigation scheme intervention from Lake Dchad research institute Maiduguri | Dec 2013 | Dec 2013 |
| 4 | Small Earth Dam at Boh, Shongom LGA | Jan 2014 | Feb 2014 |
| 5 | Rehabilitation of critical irrigation structures | Jan 2018 | March 2018 |
| 6 | Special intervention work from Accelerated Agricultural Development Scheme/Central bank of Nigeria (ASDS/CBN) Government House Gombe state for Balanga Irrigation project Critical maintenance of irrigation infrastructure | Feb 2018 | March 2018 |
| 7 | Fish fingerling hatchery complex (ph-1) | July 2011 | 2011 |
| 8 | Fish feed mill machinery & equipment acquisition | Sept 2011 | 2011 |
| 9 | Constructed fish feed mill house | Nov 2015 | 2015 |

**Source:** Compiled by the researcher.

**Current Financial Methods**

These are Guarantee, Insurance and Underwriting Schemes as well as agricultural credit guarantees. Credit guarantees ensure repayment of loans in part or full in order to motivate lenders to provide loans to borrowers who would otherwise not have been able to access credits on their own, (Navajas 2001).

Insurance of agricultural produce indemnifies farmers for possible losses of production during harvest while underwriting guarantees prices for the eventual farm produce in order to assure farmers of adequate and stable income. With Nigeria Agricultural Credit Insurance Corporation's (NAIC) incursion to general insurance, focus has been lost. Other insurance firms have now gotten involved also.

Agricultural credit guarantee suffers from sustainability problem, level of financial development of the country and the viability of the lending partners. The provision of guarantees can be direct or indirect, funded or unfunded, open or closed (targeted). The provision of guarantee schemes enables the lender to lend comfortably to the borrowers while the guarantor assumes the agreed level of risks in case of default by the borrower. The system has its advantages in assisting those farmers who otherwise would not have access to credit (Gudger, 1998).

**Challenges of Agricultural Financing**

Similar to other sectors, those who invest in agriculture, particularly local farmers, but also foreign-owned plantations, processing factories, storage facilities or fertilizer companies, may need additional funds from third parties to carry out their businesses. However, in the current global financial system, a number of factors frustrate the development of financial services in rural areas in Nigeria. First, transaction costs and risks in rural areas are higher than in urban areas due to a more dispersed population with weak infrastructure (IFAD, 2009a). The risk factors inherent in agriculture often inhibit financial institutions from lending. These include production risks linked to natural hazards (such as droughts, floods and pests), farmers´ weak collateral

standing. (either because the farmer lacks title to land to offer as a loan guarantee or the value of the land may be too low). The volatility of prices in the sector is also a huge problem, (IFAD, 2009a); lack of innovations in the financial sector. The small scale operation of most farmers does not attract some funding facilities. Poor record keeping of farmers in developing nations means that they cannot be trusted to account for funds dispersed to them or payback with ease.

**Financial Instruments for the Rural Sector**

A variety of financial instruments respond to different needs in the agriculture sector. These financial instruments depend on the level of sophistication of the financial system and the willingness of the financers to take the risks in that particular market. Regulation and awareness programs also play a key role in the response to the financial needs.

**Direct Finance**

Financing a particular actor of the agriculture sector is the traditional approach to financing in Nigeria. This includes not only farmers but also other actors, such as input suppliers, processors, traders and exporters. All need financing to get food from the farm to the consumers. The following financial instruments are available:

i. **Savings**. This financing comes from the actors themselves and is informal. It provides for basic access to finance and takes the form of community savings and non-formalized group financing mechanisms. Women are active in this method forming groups for small thrifts to finance their agriculture activities with a system that distributes the responsibility of collection and payments among the group members (IFAD, 2000). Financial infractions in this are present but probably minimal.
ii. **Inclusive finance (or micro-finance)**. This instrument is still part of the informal financial sector. The goal is to "expand access to affordable and responsible financial products and services by poor and vulnerable populations".
iii. **Traditional finance**. Traditional finance can come from commercial banks, agricultural development banks, non-governmental organizations (NGOs), cooperatives or investors, (in the case of equity finance). Recipients of these instruments can also benefit from support from government or international development banks (such as the World Bank and IFAD).
iv. **Leasing and factoring**. This is a more complex and innovative financial instrument to farmers and entrepreneurs, such as leasing and factoring. Leasing is used to finance machinery, automobiles and agriculture equipment availability for use.. Factoring is when a company sells its invoices to a third party (the factor) at a discount in order to improve cash flow. These mechanisms aim to reduce some of the traditional lending risks of agriculture. They are an alternative option for borrowers with limited collateral and credit history, to be able to rent machinery, equipment and other assets related to production (World Bank, 2009).
v. **Weather-based insurance**. This is an instrument that improves the chances for access to finance by insuring against bad weather. Although farmers prefer insurance for production loss, many financial institutions find the assessment too tedious and subjective. Weather-based insurance responds to objective parameters like rainfall or temperatures (World Food Program & IFAD, 2011). Farmers who can obtain weather-based insurance have better access to other forms of financing as well. This instrument is hardly available in Nigeria because of the lack of sound statistical information (IFAD, 2011).
vi. **Credit guarantee schemes**: This instrument also improves the chances for access to finance. These schemes "provide guarantees to groups that do not have access to credit by covering a share of the default risk of the loan. In case of default, the lender recovers the value that was guarantee" (Organisation for Economic Co-operation and Development [OECD], 2010). The types of financing described above can be combined in many different ways in the same project, with the participation of different actors.

**Mismanagement of Funds in Agricultural Sectors**

Relative to the amount of money lent to the other sectors of the economy, the total amount lent to agriculture is structurally deficient, insignificant and inadequate, relative to the following constraints and/or challenges: yet this amount is continuously mismanaged by various players in the sector.

**Mismatch of Banks Financial Resources**

Mismatch of banks, as profit oriented private commercial entities, would always find a way of resenting financing agricultural activities, regardless of any amount of moral suasion or other enticements from the government. This is why only 2% of the total banks lending goes to agriculture compared to other sectors. This justifies the insignificance and structural deficiency. A ready solution to this is to give the banks the opportunity of sourcing their funds especially for agricultural developments from the capital market (i.e. long-term availability of usable money for development purposes). It is in this respect that one sees the N200bn agricultural development bond of the CACS sourced from the capital market as a right step in the right direction. More of this capital market opportunity should be exploited for this strategic sector of the economy. The BOA Ltd, as the largest single development financial institution in the country should be included as a participant, along with other banks in the CACS, if only because of the availability of the long-term funds of the scheme.

**Budgetary Allocation**

Budgetary allocation towards agriculture has consistently been inadequate and short of expectations despite the assumed interests of the respective governments in the past years. For example, only 4% of the federal government's annual total budget has been consistently allocated to agricultural sector since (Sanusi, 2011). BOA Ltd is another good example where the share capital is only 41% paid up by the government despite its 40 years of existence. Solution, among others, is for the government to be alive to its responsibilities and stop the wave of lip services, unfulfilled promises, policies and poor implementations thereof. A case in point is the 2003 African Union Maputo Declaration (AUMD) where it was decided and agreed that member countries should increase their investment in agricultural sector to at least 10% of their national budget by the year 2008. Nigeria is a top member of AUMD and 5 years after the deadline, she is yet to comply with that international agreement. It is also in this respect that one views the 59% outstanding share contribution of the BOA Ltd that is yet to be paid up and hereby call on the government and the CBN to urgently take this issue up if indeed they are serious about agricultural revival of this country. There is no amount of transformation in name (from NACB – NACRDB – BOA - ???) that could perform the magic of revival if the major stakeholders are not up to their callings.

**Sundry other Problems**

Even if the money channeled to this sector was adequate, there are other problems that could torpedo expected results. These are;

**Corruption**

This is the greatest cankerworm and bane of economic recovery in Nigeria. It cuts across every facet of the society and something must be done seriously. Ariyo (2006) opined that "the level of corruption in this country has gone beyond mere corruption but leaning more on the side of insanity on the part of the corrupt ones. It is a major precipitator of the avoidable three development gaps experienced by the nation, especially through the endemic budget deficit. Corruption and related vices account for not less than 40% of public expenditure; this was estimated at a savings loss of over N10tn in the last two decades. No amount of developing finance flows would make any positive impact on Nigeria, unless and until the problem of corruption is effectively contained." In a 2009/2010 scenario, N200bn CACS fund went missing during late President's illness in Saudi Arabia. The money accrued N32bn before it was found by the National Assembly of the day which was not given to government. Indeed, the country is reported to have lost about N5.0tn to corruption within those two years.

**Policy Inconsistency and Somersaults**

It is very unfortunate that government policies have largely been very consistent over the years. This has particularly contributed to the failure of the agricultural sector. The politicization of activities of the sector like others by frequently changing policies to reflect new governments instead of being out of necessarily has caused stagnation in the sector. Therefore, the Agricultural Transformation Agenda [ATA] of the current government like its predecessors is not expected to transform anything in agricultural financial administration.

**Commodity Marketing Boards**

Since the Commodity Marketing Boards were scrapped in the late 1980s, the management of agricultural activities, produce, credits and funds has been nothing to write home about. The absence of these boards has thrown the farmers into the open market with consequential free market hazards and uncertainties. This has discouraged and scattered the true farmer population and dissuaded new entrants in the sector resulting in a fall in productivity. The only real hope is the resuscitation of these boards to manage the farmers, their produce and financing.

**Lack of Adequate Insurance Cover**

Insurance cover issue has already been addressed as the sector is unfavorable to insurance companies all over the world. The Nigeria Agricultural Insurance Company (NAIC) Act 1993 empowered it to underwrite all the agricultural credit facilities to all categories of farmers – small, medium, and large-scale holders either in groups or individually, against the risk of natural disasters in order to safeguard the funds. Since its establishment in 1987, NAIC has given a risk cover of only a paltry N100bn to Nigerian farmers and made N2 bn earnings from the premium relative to the N300bn combined credits of ACGSF, BOA, and CACS, not considering the other Federal, States, and International bodies and schemes such as the FADAMA, ADPs, RTEP, OYSADEP, OGADEP, etc., and private corporate and individual agricultural credits. It has also made insurance payments of N500million to Nigerian farmers. NAIC is the lone insurance body covering risks in agriculture, so far, but it is high time the agricultural insurance sector is also deregulated by bringing in the private commercial insurance firms.

**Empirical Review**

Makinde (2016) examined the impact of deposit money bank loans and advances on the growth of mining and quarrying, manufacturing and the building and constructions sectors as well as the service and agricultural sectors from 1986 to 2014. He found out that unlike mining and quarrying, manufacturing and the building and constructions sectors and service sector which have benefited in a little way from the deposit money banks' credits, it has significant positive effect on agricultural sector, implying that agricultural sector has benefited from the funds thereby driving economic growth in Gombe. Oleka, Sabina and Onyeze (2014) explored the impact of intermediation roles of banks on the performance of the manufacturing sector in Nigeria for the period of 8 years covering 2005-2013. They found that the intermediation process of commercial banks positively contribute to real sector (agriculture). Ajibola, Ishola and Samuel (2014) revealed the effects of commercial bank lending on Nigeria's aggregate economic growth for the period 1970-2011 that previous term's credit to service sector positively influenced the growth of Nigeria whereas lagged and current loan and advances to other sectors related negatively with growth of Nigerian economy. Nnamocha and Charles (2015) affirmed that bank loan and advances have on agricultural production in Nigeria between 1970 and 2013. The theory revealed that bank loans and advances and industrial output positively contributed to agricultural output in Nigeria on the long run while industrial output was only found to affect agricultural production in the short-run.

Adewole, Adekanmi and Gabriel (2015) investigated sectoral distribution of commercial bank loans and advances to agricultural sector, liquidity ratio, cash reserve ratios and money market minimum rediscount rates from the period of 2002-2014 in Nigeria. The theory reveals that cash reserve requirement, liquidity ratio and discount rate have no significant effect in financing agricultural sector. Hence, it concluded that discount rate,

liquidity ratio and cash reserve lower the degree of agricultural credit in Nigeria. Agunwa, Iyanya, and Proso (2015) evaluated the effect of deposit money banks on agricultural output in Nigeria, they found that commercial banks credit and government expenditure have positive and significant influence on agricultural productivity while interest rate has negative effect on agricultural output. This study is undertaken to explore new development in the small and medium scale agricultural finance and the effective, efficient and proper means of funds management in agriculture sector. This serve as a study gap

**Theoretical Framework**

The theoretical position taken in this study is that farm financial management aims at making and implementing decisions that organize and operate farms for maximization of productivity and profits. This thus connects directly to agricultural economics and makes use of prices, markets, agricultural policy, and economic institutions such as leasing and credit firms.

Three main theories, institutional theory and resource-based view (theory) are used to construct the research framework for this study. By the industrial theory Amenta (2010) says social behavior should be considered in management of organizations for processes by which structures, including schemes, rules, norms, and routines, become established as authoritative guidelines.

By the institutional theory, organizations are expected to apply management to create, diffuse, adopt, and adapt these elements over space and time. So, by this theory the social angle of organizations is emphasized and not only the economic pressures. Social pressures therefore, are the focus for conformity and legitimacy than on technical pressures for economic performance. Some of these social pressures might include ethics, peer activity, social norms, etc.

The resource-based view (theory) is the second theory and is thought relevant because achieving a sustainable competitive advantage lies at the heart of much of the literature in strategic management and strategic marketing. The resource-based view offers strategists a means of evaluating potential factors that can be deployed to confer a competitive edge of similar organisations. A key insight arising from the resource-based view is that, not all resources are of equal importance, nor do they possess the potential to become a source of sustainable competitive advantage. The sustainability of any competitive advantage depends on the extent to which resources can be imitated or substituted. Barney and others point out that understanding the causal relationship between the sources of advantage and successful strategies can be very difficult in practice. Thus, a great deal of managerial effort must be invested in identifying, understanding and classifying core competencies. In addition, management must invest in organisational learning to develop, nurture and maintain key resources and competencies. Stake holders' Theory is equally relevant in understanding the descriptions and the analysis in this study.

## METHODOLOGY

This study is designed to use the survey/descriptive method. For population, the focus is on agricultural projects in Gombe state but as they are too numerous, the study limits attention to agricultural projects in Gombe Local government alone. Census shows 73 agro-business projects. Filtering for availability of complete data for the period of 12 years of the study, 38 of these projects scale through. (This makes 50% of the entire population). Questionnaires were applied to the selected case study projects and data collected were simplified, computed, analysed using the SPSS statistical software focusing on frequencies and Chi-Square relations.

## RESULT AND DISCUSSIONS

With regards to inferential Statistics and Test of Hypotheses, the various hypothesis were considered thus;

**Test of Hypothesis 1**: There is no significant relationship between the availability of allocatable government fund and agricultural productivity. Responses to questions 1, 2, 3 and 4 addressed this hypothesis and are summarized below thus;

**Table 2: Information for test of Hypothesis One**

| Option's | Q1 | Q2 | Q3 | Q4 | Total |
|---|---|---|---|---|---|
| **SA** | 40 | 28 | 24 | 108 | 200 |
| **A** | 54 | 87 | 24 | 93 | 258 |
| **D** | 58 | 42 | 68 | 14 | 182 |
| **SD** | 21 | 18 | 26 | 9 | 74 |
| **Total** | **173** | **175** | **142** | **224** | **714** |

**Source:** Researcher's computation from questionnaire

The information in table 2 shows the aggregate observed frequencies for the category using Chi-square goodness of fit test on SPSS.

Results of Chi-square goodness of fit test

**Frequency**

| | Observed N | Expected N | Residual |
|---|---|---|---|
| 74 | 74 | 178.5 | -104.5 |
| 182 | 182 | 178.5 | 3.5 |
| 200 | 200 | 178.5 | 21.5 |
| 258 | 258 | 178.5 | 79.5 |
| Total | 714 | | |

**Test Statistics**

| | Frequency |
|---|---|
| Chi-Square | 99.244[a] |
| Df | 3 |
| Asymp. Sig. | .000 |

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 178.5.

**Source:** Researcher's computation using SPSS

The results show the Asymp.sig. or p-value of 0.000 implying that the null hypothesis be rejected in favour of the alternative hypothesis and we conclude that there is a significant relationship between the availability of allocatable government fund and agricultural productivity. That is, the availability of government fund is helping in enhancing agricultural productivity by farmers in Gombe Local Government.

**Test of Hypothesis 2:** Identification of challenges of assessing project funding has not significantly affected farmers in various agricultural projects in Gombe Local Government. Responses to questions 1, 2, 3 and 4 were used to test hypothesis Two. This information is summarized as follows:

**Table 3: Information for test of Hypothesis Two**

| Option's | Q1 | Q2 | Q3 | Q4 | Total |
|---|---|---|---|---|---|
| **SA** | 64 | 56 | 52 | 104 | 276 |
| **A** | 75 | 96 | 60 | 87 | 318 |
| **D** | 44 | 22 | 30 | 24 | 120 |
| **SD** | 12 | 16 | 16 | 7 | 51 |
| **Total** | 195 | 190 | 158 | 222 | 765 |

**Source:** Researcher's computation from questionnaire

The information in table 2 shows the aggregate observed frequencies for the category that is used in testing hypothesis Two. The test is conducted using Chi-square goodness of fit test on SPSS
Results of Chi-square goodness of fit test

**Frequency**

| | Observed N | Expected N | Residual |
|---|---|---|---|
| 51 | 51 | 191.3 | -140.3 |
| 120 | 120 | 191.3 | -71.3 |
| 276 | 276 | 191.3 | 84.8 |
| 318 | 318 | 191.3 | 126.8 |
| Total | 765 | | |

**Test Statistics**

| | Frequency |
|---|---|
| Chi-Square | 250.953[a] |
| Df | 3 |
| Asymp. Sig. | .000 |

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 191.3.
**Source:** Researcher's computation using SPSS

The results above show the Asymp.sig. or p-value, which is 0.000 implying that the null hypothesis be rejected in favour of the alternative hypothesis and we conclude that there is a significant relationship between identification of challenges of assessing project funding and farmers in various agricultural projects in Gombe Local Government. That is, the identification of challenges of assessing project funding is helping farmers in various agricultural projects in Gombe Local Government.

**Test of Hypothesis 3:** There is no significant relationship between assistance of agricultural finance and agricultural projects in Gombe Local Government. The information from question's 1, 2, 3 and 4 are used to test hypothesis Three. This information is summarized as follows:

**Table 4: Information for test of Hypothesis Three**

| **Option's** | **Q1** | **Q2** | **Q3** | **Q4** | **Total** |
|---|---|---|---|---|---|
| **SA** | 80 | 52 | 24 | 88 | 244 |
| **A** | 111 | 84 | 54 | 57 | 306 |
| **D** | 20 | 44 | 56 | 30 | 150 |
| **SD** | 8 | 10 | 20 | 19 | 57 |

Source: Researcher's computation from questionnaire

The information in table 4 shows the aggregate observed frequencies for the category were used in testing this hypothesis
Results of Chi-square goodness of fit test

**Frequency**

| | Observed N | Expected N | Residual |
|---|---|---|---|
| 57 | 57 | 189.3 | -132.3 |
| 150 | 150 | 189.3 | -39.3 |
| 244 | 244 | 189.3 | 54.8 |
| 306 | 306 | 189.3 | 116.8 |
| Total | 757 | | |

**Test Statistics**

| | Frequency |
|---|---|
| Chi-Square | 188.421[a] |
| Df | 3 |
| Asymp. Sig. | .000 |

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 189.3.
**Source:** Researcher's computation using SPSS

From the above results, the Asymp.sig. or p-value is 0.000 implying that the null hypothesis be rejected in favour of the alternative hypothesis and we conclude that there is a significant relationship between assistance of agricultural finance and agricultural projects in Gombe Local Government. That is, the successful provision of agricultural finance is helping agricultural projects in Gombe Local Government.

**Test of Hypothesis 4:** There is no significant relationship between efficiency of development fund management and the growth of agricultural businesses in Gombe local government. The information used to test this hypothesis came from question's 1, 2, 3 and 4. It is summarized below as follows:

**Table 5: Information for test of Hypothesis Four**

| **Option's** | **Q1** | **Q2** | **Q3** | **Q4** | **Total** |
|---|---|---|---|---|---|
| **SA** | 28 | 48 | 24 | 88 | 188 |
| **A** | 90 | 57 | 72 | 84 | 303 |
| **D** | 46 | 54 | 60 | 24 | 184 |
| **SD** | 16 | 16 | 14 | 12 | 58 |
| **Total** | 180 | 175 | 170 | 208 | 733 |

Source: Researcher's computation from questionnaire
The information in table 5 shows the aggregate observed frequencies that is used in testing the fourth hypothesis.
Results of Chi-square goodness of fit test

**Frequency**

| | Observed N | Expected N | Residual |
|---|---|---|---|
| 58 | 58 | 183.3 | -125.3 |
| 184 | 184 | 183.3 | .8 |
| 188 | 188 | 183.3 | 4.8 |
| 303 | 303 | 183.3 | 119.8 |
| Total | 733 | | |

**Test Statistics**

| | frequency |
|---|---|
| Chi-Square | 163.988[a] |
| Df | 3 |
| Asymp. Sig. | .000 |

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 183.3.
**Source:** Researcher's computation using SPSS

The results from the table above show the Asymp.sig. or p-value as 0.000 implying that the null hypothesis be rejected in favour of the alternative hypothesis. It is then concluded that there is a significant relationship between the efficiency of development fund management and the growth of agricultural businesses in Gombe Local Government. That is, the efficiency of development fund management is helping the growth of agricultural businesses Gombe Local Government.

*Discussion of Findings*

There is a significant relationship between the availability of allocatable government funds and agricultural productivity. That is, the availability of government fund is helping in enhancing agricultural productivity by farmers in Gombe Local Government. This finding is in agreement with those of Akinleye, Akanji and Oladoja, (2013) but it is in disagreement with those of Salami and Arawomo (2013), Obilor (2013).

There is a significant relationship between assistance of agricultural finance and agricultural projects in Gombe Local Government. That is, assistance of agriculture with finance is helping agricultural projects in Gombe Local Government. This finding is in agreement with those of Bezemer and Headey, 2008 but it is in disagreement with those of Agunwa, Iyunyu and Proso (2015).

There is a significant relationship between the efficiency of development fund management and the growth of agricultural businesses in Gombe Local Government. Efficiency of development fund management thus helps the growth of agricultural businesses Gombe Local Government. This finding is in agreement with those of Akpansung and Babalola (2010) and Udih (2014) but it is in disagreement with those of Osuntogun and Adewunmi, (2003).

## CONCLUSION AND RECOMMENDATIONS

The availability of allocatable government funds to agricultural sector has a significant positive growth effect in agricultural productivity. That is, the availability of government fund is helping in enhancing agricultural productivity by famers in Gombe local government.

The identification of challenges of accessing projects funds by farmers in various agricultural projects has a significant effect in reducing productivity. There is a significant relationship between financial, technical and physical assistance of agricultural projects and agricultural productivity in Gombe local government. Assistance in the form of agricultural finance is helping agricultural projects in Gombe local government.

There is a significant relationship between the efficiency of development fund management and the growth of agricultural businesses in Gombe local government. So the efficiency of development fund management is helping the growth of agricultural businesses in Gombe local government.

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