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Financing Agriculture in Nigeria: A Comparative Review of Roles Played by Private, Public, and International Financial Institutions and Agencies

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Abstract Financing agriculture in Nigeria from the perspective of both conventional and Islamic sources of finance has been faced with multi-dimensional challenges that impede the agricultural sector threatening sustainable agricultural production for food security. With a population size of 206 million and 70.8 million hectares of arable land, Nigeria is threatened with a high rate of unemployment, poverty, malnutrition, and social inequality. This can be related to the lack of access to finance by smallholder farmers in financial institutions. If access to financial institutions in critical sectors like agriculture and energy can be enhanced, then there will be an increased development in the overall value chain of the agricultural sector. This review paper is aimed at (1) Evaluating the current studies of the cause and effect by looking at the roles played by private, public, and international financial institutions and agencies and (2) Outlining the research gap in the literature with a focus on comparative study on financing agriculture in Nigeria. This study is based on a multi-dimensional theoretical approach (structural-functional, dependency theory, modernization theory, human needs theory, conflict and critical theories). The paper adopted the systematic literature review and reviewed 27 relevant source documents. Based on the review of the literature, the following major results emerged: Lack of macroeconomic policy, lack of access to finance, and bureaucratic bottleneck. The literature review revealed the challenges of financing agriculture and the effect on society based on results that emerged from the study. In addition, it also revealed the practical, evidence, theoretical, population, implementation, and methodological gaps that can lead to further research study. This comparative review study contributed to knowledge in expanding the existing literature on cause and effect by focusing on the roles played by private, public, and international financial institutions and agencies in financing agriculture using multi-dimensional theories and methods to find what the causes are, why they occur, what groups are affected, how they cope in the absence of funds, and what measures to apply to improve agricultural finance.

Keywords Agricultural Financing, Conventional Finance, Climate Change, Islamic Finance, Islamic Development Bank, Poverty, Unemployment

1. Introduction

Access to finance enhances performance in any critical sector of the economy for sustainable development. The conventional and Islamic financial systems in Nigeria have put a lot of restraint on agricultural financing to smallholder farmers. Fawowe [1] argued that a constraint of finance limits business growth while credit promotes business growth. Finance, however, is not necessarily a constraint in Africa, especially in Nigeria with the effort of government intervention funds to finance the agricultural sector. But bureaucracy in the management of financial resources by financial institutions and government agencies, has proved to be a serious challenge, and Ekpo, Etukafia, and Udofot [2-4] indicated that utilization of credit for project financing does not in most cases translate into desired goals due to lack of effective management. Agriculture is defined by Ben as " the art and science of growing plants and other crops and raising animals for food and other human needs and economic gains"[5]. By this definition, the human need and economic benefit that is derived from agriculture providing food, income, and raw materials for smallholder farmers and agro-processors can be achieved with good management of the employable labor of 70%-80% of the rural population in developing countries as World Bank [6] indicated. Historically, Islamic finance played a significant role in agricultural production under the control of emirs' native authority structure. The emirs' use of slave labor, "Aikin Gandu" collective family labor, "Aikin Gaiya" collective community labor, and the role of "Attajirai" wealthy individuals were instrumental in financing agriculture and agricultural production based on Islamic shariah law as shown in Salau [7] which lasted till Nigeria's independence in 1960. The change in governance brought into being the cultural and financial hegemony of western civilization in Nigeria with the establishment of a conventional financial system. The collaboration between the emirates' Native Authority (NA) administration structures, the British Banks, and World Bank under the Royal Niger Company was instrumental in tax collection and loan disbursement from the World Bank, to complement shortfalls in government funding. In support of this statement, the World Bank [8, pp. 7-10] reported the utilization of loans collected by the government and disbursed to critical sectors of the economy for developmental purposes. Today international financial institutions have failed through the government to transform smallholder farmers into viable commercial farmers because of a lack of effective administrative structures and direct management of resources. While Fadeyi [9] admitted that the lack of collaboration has left smallholder farmers to "Asusu" self-help as a coping strategy in the absence of finance.

Electricity supply with an expansion of power generation was regulated by the government and provided sustainable electricity for the agricultural sector. Today, the World Bank [10] stated Nigeria losses $26.2 billion annually due to insufficient electricity to key sectors of the economy, thus, suggesting privatization of the energy must be revisited by law and regulated. In addition, sustainable electricity, provided adequate opportunity for investment in appropriate local content production to support agricultural productivity with innovations in modern technology. Today, the cost of production and support for technological innovations in agricultural engineering development is high.

The development of the oil and gas sector stabilized the effort of the government in fighting climate change in the past by providing alternative sources of energy. Today, Nigeria is an importer of petroleum products making way for the high demand for fossil trees for energy use and exposing the environment to climate change and its associated effects. With 206,140 million people as stated by Statista [11], Nigeria, from 1970 to date has moved from an agricultural economy to an oil-dependent mono-economy. The neglect of agricultural finance even with the 28 registered commercial banks, 4 Islamic banks, and 6 development finance banks under the Central Bank of Nigeria (CBN) today, reflects the failure of financial institutions and government agencies in the discharge of their corporate social responsibility in funding medium and long-term loan.

The high-interest rates, demand for collateral, and cultural issues associated with the Muslim interest rate charges (usury) have excluded a percentage of people from financial participation in conventional financial institutions. This may have led to the renaissance of the Islamic financial system in Nigeria, with marginalized groups predicted to be financially inclusive in Islamic banks as Adua [12] indicated to reduce poverty. However, with the Islamic financial system in place in Nigeria today, loan disbursement to smallholder farmers is still a problem due to the demand for collateral by Islamic banks. The lack of finance, unfortunately, is associated with the prevalent unemployment rate, poverty, malnutrition, and social inequality in Nigeria and Global Hunger Index [13] report showed that Nigeria ranks 103rd in the world out of 116 countries with 28.3% of the population facing serious hunger levels. This points out that 56.6 million people out of the 206 million people are faced with serious hunger, malnutrition, and child mortality. Also, the World Bank [14] reported that 4 out of every 10 Nigerians live below the national poverty line representing 82.4 million people of the total population. This is an indicator to measure financial institutions, government agencies, and international financial institutions for their lack of financial inclusion of marginalized groups in financing agriculture in Nigeria.

The theories of sociology of development are employed based on the prevalent high rate of unemployment, poverty, and social inequality in Nigeria. These theories will be applied from a multi-dimensional approach to the challenges of agricultural development. There is a need to re-organize the structural formation of financial institutions, government agencies, and international financial institutions. There is also a need for government to reduce the dependence on foreign loans that are not associated with medium and long-term investments in the agricultural sector. The modernization of technological innovation in the agricultural sector must be well financed. Moreso, funding ecological modernization to mitigate the effects of climate change is necessary for agricultural development. The human physiological needs of smallholder farmers must also be financially supported. The need to limit conflicts due to the lack of financial assistance and the critical approach to provide possible measures to mitigate the challenges of financing agriculture are necessary.

Governments from pre-independence to 1970 post-independence achieved success in financing agriculture through financial institutions and agencies. What development plan strategies were adopted to manage macroeconomic policy? How did they manage the modernization process? These are questions that can help in recent times, to understand the factors responsible for the high rate of unemployment and poverty in Nigeria and provide an explanatory insight for a paradigm shift in financing agriculture through conventional and Islamic sources of finance.

The objectives of this paper are; (1) to evaluate related literature on the cause and effect of financial institutions, government agencies, and international financial institutions towards financing agriculture from conventional and Islamic sources of finance, and (2) to outline the research gaps in the literature that will help in further research on financing agriculture in Nigeria.

2. Literature Review

The literature review section concentrated on the conceptual review of financing agriculture in Nigeria and the empirical review of financing agriculture in Nigeria, with a focus on evaluating literature related to financing agriculture.

2.1. Financing Agriculture in Nigeria: A Conceptual Review

The need for structural reorganization and collaborative effort of conventional and Islamic financial systems in financing the agricultural sector in Nigeria is critical to saving the nation from the high rise of unemployment, poverty, malnutrition, and other forms of criminality associated with these problems. Agriculture still plays a key role in Nigeria's economy, and improving finance will go a long way in cushioning the challenges faced by mostly smallholder farmers. The conventional and Islamic financial systems operating in Nigeria must in practice bridge the gap between the rich and the poor as Karl Marx argued, and ensure optimal financial accessibility to smallholder farmers to improve 70% of the society in rural areas into the middle-class range while minimizing the lower class and upper-class ranges of members of the society as Max Weber posited. Furthermore, the Islamic financial system must in practice reduce poverty by ensuring financial accessibility to smallholder farmers. Zakat is a 2.5% yearly tax placed on the rich to pay from yearly saved money, agricultural produce of crops and livestock, and gold so that it will be distributed to the needy. These taxes if centrally collected can finance the needy smallholder farmers.

Interest rates have been a major existent problem in conventional finance which has limited financing for agriculture in Nigeria. While the debate continues between conventional finance and Islamic finance, one may argue that the conventional financial system's interest rate effect kills businesses and destabilize families. For instance, interest rate charges in the 2008 financial crises and the coronavirus pandemic have destroyed businesses, while the non-interest rate Islamic financial system has strongly provided shock absorbers and maintained financial stability in countries like Malaysia, the United Arab Emirates, and Saudi Arabia. The profit and loss agreement of Islamic financial systems deals with financial crises, natural disasters, and pandemics like the coronavirus and safeguards against the financial risks faced by conventional financial institutions. The inability of both financial systems to invest depositors' funds and the government's lack of macroeconomic policy to support the agriculture sector are major challenges that need restructuring.

The Bank of Agriculture (BOA) as a development finance bank must be structured and adequately financed to provide accessible financial services to smallholder farmers within the country. With few Islamic banks in the country, the need for a collaborative effort between conventional banks to open Islamic windows and ensure farmers' inclusive participation in accessing funds must be addressed, in line with the farmers' cultural norms and values. Islamic banks should provide medium to long-term agricultural financing using debt and non-debt instruments to support the agricultural sector. While re-organizing private sector financing in conventional banks, focus on the elimination of collateral and high-interest rate based on the model of diminishing interest rates in business repayment plans must be applied to provide leverage to smallholder farmers. For instance, Grameen bank in Bangladesh provides such a diminishing interest rate.

The reorganization of conventional banks to operate Islamic windows can also improve access to funds to smallholder farmers through the Nigeria Incentive and Risk Sharing Agricultural Lending (NIRSAL) program and the Agriculture, Small, Medium Enterprises Equity Investment Scheme (AGSMEEIS) and commercial banks. The Nigeria Incentive and Risk Sharing Agricultural Lending (NIRSAL), Anchor Borrower Scheme (ABS), and Agriculture, Small, Medium Enterprises Equity Investment Scheme (AGSMEEIS) funds can be channeled through Agriculture Credit Guarantee Scheme Fund (ACGSF) directly since it has a consistent significant relationship to agricultural development and growth in Nigeria instead of establishing other institutions with duplication of functions.

The Islamic Development Bank (IsDB) should develop a medium, long-term financing arrangement framework for the agricultural plantation that can add value to the sector, and the World Bank (WB) and Islamic Development Bank (IsDB) can partner with Nigeria on financing agriculture through the Agricultural Credit Guarantee Scheme Fund (ACGSF) or take up equity shares in the Bank of Agriculture (BOA) to have control over finances to enhance agricultural contribution to the Gross Domestic Product (GDP) and the Gross National Product (GNP) of Nigeria rather than partner with the federal and state governments where access to finance to smallholder farmers continued to be a difficult process.

In the absence of these partnerships, mergers, or equities in government agencies, the Islamic Development Bank (IsDB) and the World Bank (WB) in Nigeria should focus on having their distinct structural agricultural framework, or partner with both conventional and Islamic institutions to inject funds that will reach smallholder farmers across the country with ease.

Nigeria's economy can be argued to be improved with regulation, not privatization, especially in the energy sector, it is critical to developing the energy sector for sustainable electricity to enhance the agro manufacturing industry. Financial institutions must invest funds in alternative sources of energy and in technological innovations to complement the value chain of production, processing, packaging, storage, and marketing of stakeholders in the agricultural sector.

While international funding is critical to agricultural development, the Islamic Development Bank (IsDB) and Jaiz Bank can also in collaboration with the International Islamic Liquidity Management Corporation (IIMC) inject funds into the agricultural sector with a focus on venture capital using both debt and non-debts Islamic mode of financing. With the multi-dimensional approaches to the challenges of financing agriculture focus should be given to the theory of structural functionalism of Talcott Parsons Adaptation, Goal attainment, Integration, and Latency (AGIL) and Robert Merton's 3 postulates of Functional Unity, Universal Functionalism and Indispensability and rely on Rostow's model of economic growth to synergize the government plan to improve critical sectors of the economy that will impact on human development.

2.2. Financing Agriculture in Nigeria: An Empirical Review

Themes were developed around the first objective to review literature that provided informed and evaluated knowledge about financing agriculture. The results were analyzed also around the theories of sociology of development chosen because of the observed rate of unemployment, poverty, and social inequality in society.

2.2.1. The Role of Government Agencies, Financial Institutions, and International Donor Agencies in Financing Agriculture in Nigeria

Macroeconomic policies for sustainable development are based on "Marshall plans" that coordinate different sector of the economy to propel economic and social growth. Unfortunately for Nigeria, the last national development plan for the country was the 1970 - 1974 plan. To propel sustainable development in the agricultural sector, energy must be a priority for the government to meet optimal electricity supply to sustain manufacturing, and Iyoboyi, Okereke, and Pedro [15-17] have admitted that a macroeconomic policy to address energy supply and credit to farmers will strengthen the agricultural sector.

The structures of private, public, and international financial institutions and agencies exist but without outreach to smallholder farmers in rural areas. Conventional banks, concerned with maximizing profit provide secured and unsecured loans which most farmers can't afford to access because they can't provide collateral and cannot afford the high-interest rates charged for such private and public loans like the Agricultural Credit Guarantee Scheme Fund (ACGSF). A study conducted by Nwosu, Oguoma, Ben Chendo, and Henri Ukoha [18-21] noted that the bureaucratic bottlenecks in the process of loan application including lack of repayment on the side of the farmers make loans inaccessible to them. Similarly, Isa and Terungwa [22,23] have maintained that the lack of farmers' access to finance from commercial banks including the agricultural value chain because of related issues of collateral and risk of defaults propelled the banks to set aside 10% now adjusted to 5% of their profit after tax to be kept under the bankers' committee in the Central Bank of Nigeria (CBN) under the Small, Medium Enterprises Equity Investment Scheme (SMEEIS) for investment purposes of Small, Medium Enterprises businesses but the fund is faced with the challenge of inaccessibility by the business owners.

To further support high risks investment in agriculture, the Central Bank of Nigeria (CBN) has called upon commercial banks to invest a sizable amount of their balance sheet in financing agriculture in partnership with the Nigeria Incentive-Based Risk-Sharing System for Agricultural Lending (NIRSAL) to guarantee smallholder farmers who cannot provide collaterals. Out of the 28 commercial banks, 4 Islamic banks, and 6 development finance banks, only Stanbic Bank and Union Bank have invested heavily in the program with 10 billion Naira each. Findings of Anetor, Ogbechie, Kelikume, and Ikepesu [24-27] revealed that access to finance remains a challenge with the non-inclusion of smallholder farmers in commercial banks, government programs, and agencies because of the refusal of private sector finance to invest part of their balance sheet in the government established program. With the failure of commercial banks participating in Nigeria Incentive Risk Based Sharing for Agricultural Lending (NIRSAL), the Central Bank of Nigeria (CBN) established the Micro Finance Bank (MFB) in 2019 to support the disbursement of funds for Agricultural, Small, and Medium Enterprise Equity Investment Scheme (AGSMEEIS) for micro, small and medium businesses, unfortunately, this funding arrangement must rely on commercial banks to be effective and efficient, thus, affecting agricultural financing due to their bureaucratic challenges.

While the Agricultural Credit Guarantee Scheme Fund (ACGSF) has been a consistent and effective program in agricultural finance, empirical facts of Usman, Singh, and Singh [28-30] have indicated that funding is still inadequate for farming families and the need to increase funding to the scheme to improve agricultural development. A further study conducted on the Agricultural Guarantee Scheme Fund (ACGSF) by Ojo and Oluwaseun [31,32] admitted that a sizable population of Nigerians' does not know about (ACGSF) fund, furthermore, the lack of guarantors for farmers who cannot afford collateral to access funds and the interest charges on loans which can be as high 25% - 30% in commercial banks are recurrent problems faced in financing agriculture. Commercial banks operate based on maximizing profit and because their branches in rural areas are nonexistent, smallholder farmers do not have a competitive edge to access loans from banks. This also can be argued to show that the distance of commercial banks to the farmers is a major challenge in accessing Agricultural Credit Guarantee Scheme Fund (ACGSF) funds through banks.

A recent study on the Agricultural Credit Guarantee Scheme Fund (ACGSF) by Mubaraq [33] has pointed out a significant growth in agricultural performance under the Agricultural Credit Guarantee Scheme Fund (ACGSF) between 1981-2019. The study also indicated that the scheme has not been able to contribute to the Gross Domestic Product (GDP), and can be argued that the macroeconomic policy between 1981-2019 can change the narrative of the smallholder farmers' standard of living using the factors of the high exchange rate, inflation, and interest rates.

The Bank of Agriculture (BOA) was established in 2010 based on the World Bank research report to ensure the government's effort in the development of rural finance in Nigeria. A decade after, funding of the bank by the Central Bank of Nigeria (CBN) and the Federal Ministry of Finance (FMF) has become a pertinent issue in financing agriculture. Mohammed, Sheng, and Mamun [34-36] observed that with the inadequate number of branches to support rural financing and a high rate of default in the repayment of loans by smallholder farmers, the financial agency cannot recycle funds for them and expand branches.

To support the financial inclusion of smallholder farmers, Jaiz Bank being a major player in Islamic non-interest financial instruments in Nigeria has not been able to transform agriculture by disbursing funds to the agricultural sector. Related finding on financing agriculture through Al Salam products by Ogunbado and Ahmed [37,38] have revealed the lack of investment in Al Salam products by Islamic financial institutions like Jaiz bank and other Islamic financial institutions, this alternative financial option can revive agricultural production based on agreed advance payments to smallholder farmers who pay back fund at a stipulated time after harvest, sell the goods at a price lower than the market value. This Islamic debt instrument can be most instrumental in use if only Islamic banks monitor and evaluate the performance of the farm progress rather than the advance made to individuals as most conventional banks do. Concerning conventional agricultural finance, Ahmed [39] has observed that diversion of funds to other sectors within Union Bank is a challenge and this has contributed to the under-funding of the agricultural sector in Nigeria by conventional banks.

2.2.2. The Modus Operandi of Conventional and Islamic Financial Systems in Financing Agriculture in Nigeria

Structural formations of banks play a critical role in financing agriculture but more or equally important are the processes of operation within these banks whether conventional or Islamic. The purpose of establishing a bank is to provide financial services and support to businesses and to maximize profit for conventional banks. From the Islamic point of view, Al-Nawawi Hadith number 1 which stated Amirul muminin Umar ibn Khattab the second Khalifa said ***"The Prophet of Allah (SAW) said Actions are judged by Motives (Niyyah), so each man will have what he intended. Thus, he whose migration is to Allah and His Messenger his Migration is to Allah and His Messenger; but he whose migration is for some worldly thing he might gain, or for a wife he might marry, his migration is to that which he migrated"*** [40, pp. 1-3]. Niyyah means intention and the purpose of this hadith as regards establishing an Islamic bank must be based on the intention to empower weak marginalized groups of people with a mission to ensure growth in their livelihood and the economy at large. In the context of this paper, smallholder farmers whose main activity is farming must be supported through the normative ethics of Islamic finance, and not adhere to the use of Islamic financial ethics in the practice of financing agriculture using the various debt finance modes like mudaraba, musharakah, and al-Salam and non-debt financing modes ijarah, and takaful, and the lack of monitoring and evaluation of targeted smallholder farmers who have been advanced loans will not yield a positive result to both human and economic development.

A fundamental factor in Islamic finance that grows investment is trust, and Yahuza and Idris [41,42, pp. 13-15] have pointed out in their study that cheating and unfair dealings between the landowners and farm investors on the land lead to a breach of trust, indicating non-compliance to shariah principles. This shows the lack of practical utilization of Islamic modes of debt and non-debt financing in agriculture. In addition, scarcity of land and land tenure on rent is also another challenge that limits farmers' participation which affects agricultural production. An unequal ratio in sharing crop yield is also another impediment to financing agriculture in Islamic finance.

Islam is a complete way of life and is considered one of the Ibrahimovic religions, others include Judaism and Christianity. Islamic rules are derived from the Quran and Sunnah of the Prophet Muhammad (SAW) and thereby regulate all aspects of the lives of Muslims individually and collectively. This includes the Muslims' economic activities and financial status towards achieving their consequentialist and utilitarian needs within the society. For this paper, the Islamic perspective and the three sociological theories as shown in Laluddin [43] have argued that including the social phenomena of the Islamic perspective that shaped the social reality of Muslim faithful into the broader perspective of the universal study is equally saying all situations, events and behaviors are indispensable and need to be studied to improve on the contribution to knowledge. Laluddin [43] further argued that for social phenomena of Islamic perspective to be understood better in the three sociological theories namely, symbolic interactionalism, structural functionalism, and conflict theories, the Islamic perspective must be accepted on the count that the practical aspect is equally as important as the theoretical aspect and in the context of financing agriculture, the practical aspect of extending the loan to smallholder farmers must be in tandem with the theoretical aspect of Islamic finance which is regulated by Islamic jurisprudence on economics and finance.

The need for the inclusion of Islamic perspectives on social phenomena as enshrined by Islamic law (jurisprudence) is to mitigate social and economic problems in society. While norms and values differ, cultural hegemony on issues within different dimensions of society must not be allowed to be considered dispensable. Therefore, research in Islamic financial systems should be indispensable because it focuses on humans irrespective of religion or race as long as the Islamic ethics in finance is adhered to.

The 3-domain approach to corporate social responsibility reflects a positive theoretical approach in general terms within the business environment in most societies around the world. Carroll defined Corporate Social Responsibility (CSR) as " the social responsibility of business encompasses the economic, legal, ethical and discretionary expectations that society has on an organization at a given point in time" [44].

World views are critical in the thinking of social institutions and Carroll argued that social responsibility from a positive theoretical point of view signified the contribution of an organization based on what it does for society. One may still argue that (CSR) should signify the required mandatory services to society. In the same vein, from an Islamic point of view, the social responsibility of business should be viewed from the ethical standard, to encompass the economic, legal, and discretionary expectations the society has of an organization. This normative theory in Islamic financial institutions (CSR) must also be seen to adhere to the mandatory service delivery expected by society. Corporate Social Responsibility by Schwartz and Carroll [45,46] have shown that conventional financial institutions rely on maximizing profit, and expectations of the society are dependent on what the conventional financial institutions choose to do rather than what the financial institutions ought to do in terms of their mandatory services to the society. This lack of corporate social responsibility support from private, public, and international financial institutions and agencies institutions and government agencies shows the dimension of both conventional and Islamic financial systems in maximizing profit rather than achieving the purpose of their establishment.

2.2.3. The Role of Official Development Assistance (ODA) Foreign Loans in Government and Financial Institutions' Corporate Social Responsibility (CSR) in the Agricultural Sector

In contemporary times, foreign funds have not yielded the desired result in transforming the smallholder farmers in Nigeria. Today, these funds hardly get to smallholder farmers because of the structural issues and reliance on the World Bank (WB) and Islamic Development Bank (IsDB) on the federal and state governments to disburse funds on their behalf. International financial institutions cannot and will not achieve economic development growth without a funded and functional financing structure in developing countries. Fadeyi [47] noted that agricultural production by smallholder farmers in the absence of funding from financial institutions and international financial institutions in Nigeria relied heavily on the informal source of "asusu" personal or group contribution/ savings, in addition to sales of stock like crops and cattle to finance their agricultural activities.

While Nigeria is faced with a debt crisis issue, the Debt Management Office [48] has reported that Nigeria has over \$100 billion in domestic and foreign loans in the first quarter of 2022. These loans have little or no impact on the agricultural sector, with little or no medium-long-term investment to ensure foreign exchange through export. Considerable information on Breton Woods Institutions as shown in Ashaver, Tavershima, and Dooshima [49-51] have indicated that the stringent conditions imposed on Nigeria in the negotiation for loans by the world bank in securing these foreign loans have contributed to the loss of jobs through the privatization of public companies. In addition, the interest rates accrual on loans and high exchange rates has continued to worsen repayment in addition to creating economic crises.

2.2.4. The Role of Financial Institutions and Government Agencies in Funding Technological Innovations within the Agricultural Value Chain

Technology is not only very important but critical towards improving yield in the agricultural sector in

Nigeria. The value chain of all agricultural segments is crucial for the sub-sectors development and from the production, processing, packaging, storage, and marketing of agricultural goods, technology plays a very key role in sustaining agriculture. According to Osabohein, Adeleye and De Alwis [52-54] in their study, pointed out that an increase of 1% funding in farm machinery increased food production in Nigeria by an average of 2.28% in addition to the 1% funding in agro financing which also increased food production by an average of 0.003%. In addition to sustaining technology in terms of mechanization, Adekola, Alabadan and Akinyemi [55-57] have argued that agricultural engineering has contributed to China's agricultural revolution, and the focus must be on financial support investment for local manufacturers or fabricators to produce equipment and reduce capital flight through importation.

One of the major problems attributed to agricultural development is energy. Energy generation, installation, and distribution have been a problem in Nigeria affecting not only industrial needs but also domestic and commercial needs, thus, affecting Nigeria’s GDP. Electricity supply after the privatization of the energy sector in Nigeria has dropped and Otegbulu [58] has admitted that based on the high cost of providing the alternative power supply, households are willing to pay extra more for sustainable electricity supply in Nigeria. Within the period 2011 to date, an increase in electricity tariff has skyrocketed without the achieved goal of sustainable electricity supply. The lapses in public-private partnership on electricity generation and distribution will need a rethink away from privatization to full regulation of the energy sector by the government. Also, a recent study by United States Agency for International Development USAID [59] has admitted that 90% of farmers complained that there are 3 important impediments to agricultural production, and electricity comes after lack of finance. The lack of an electricity grid to support agro manufacturing of flour limits the production of maize and the high cost of diesel or fuel for energy for semi-grid local processors and industries further limit the demand for flour.

The growing demand for modern machinery in easing the traditional way of farming is still high, unfortunately, the high cost of imported tractors from abroad is unaffordable to smallholder farmers, thus, the maintenance and use of animal traction is the best option. In addition, Hiyoruki [60, pp. 6-10] has assessed that the imperfection of tractors hiring in Nigeria is a result of a lack of funding to procure these tractors by smallholder farmers who own farmland of less than a hectare of land. While the procurement of 60-hp tractors is in high demand in Nigeria since 2013 with costs as high as $30,000 per tractor. Tractor hiring services are rising with demand from farm households with families who own tractors and those who hire out tractors. However, family members who use animals labor without tractors are higher than those without animals and tractors and those who use tractors have the least family members in Nigeria.

The soil and root conditions in Nigeria are workable and have little or no constraint for agriculture in most parts of the country, while there seems to be a moderate constraint in rocky, Sahelian, and soil erosive areas across the different regions of the country. Financial institutions and agencies can fund smallholder farmers and agro-processors to acquire smaller tractors with small horsepower (hp) and produce manufactured local content agricultural mechanization and equipment through a lease purchase or insurance to improve agricultural development.

2.2.5. The Role of Financial Institutions and Government Agencies in Funding Climate Change Issues to Mitigate the Effects of Climate Change on the Environment and Agriculture

Little has been done to address the issue of desertification in northern Nigeria which is approaching the guinea savannah zone with over 35% of the land mass being encroached by desertification in 11 Northern states in Nigeria. Felling of trees for energy and economic benefits both in the north and forest belt are problems that contribute to the effect of climate change with flood and drought affecting the environment and agricultural production and Ladan [61, pp. 181-183] admitted that the increase of flood and drought resulting from climate change in Nigeria is affecting crop yield and has increased over time. Gas can complement the burning of felled trees and coal for energy use, unfortunately, the gas piping across the country has been a very challenging one and it is still yet to be visible for mass consumption in Nigeria. The vandalization of oil pipelines has contributed to the export of crude oil for refined products truncating the operations of existing refineries leaving them ideal and non-performing creating shortages and a price hike of petroleum products like kerosine and diesel. The government’s inability to address issues of climate change in Nigeria even with the budgeted funds allocated to the Ecological Funds under the Federal Ministry of Environment is a problem. In support of this, Adibe, Ifesinachi, and Wogu [62,63,64 p. 115] have stated that the non-conformity to stipulated disbursement guidelines, incomplete remittance of funds to relevant agencies, and unauthorized diversion of funds by the management of the ecological funds is a challenge to mitigating the effects of climate change. In addition, this can be argued to indicate why the federal government and the national assembly have shown no interest in complying with the directives of the Conference of Parties (COP) on climate change to formally establish a climate change independent body, to look into the structural functionalism and ecological problems of financing agriculture and improve the environment and agriculture.

2.2.6. Poverty and Unemployment as a Consequence of Financial Institutions, Government Agencies, and International Donor Agencies

Lack of finance due to smallholder farmers' inaccessibility can be argued to increase the rate of unemployment and poverty. The insecurity of Boko haram in the Northeast and the banditry, cattle rustling, and kidnapping in the northwest can be argued to add to farmer's plight in their loss of physiological needs thereby increasing the rate of malnutrition as people are being displaced and unable to access their farmlands. With 28.3% of the population being poor and malnourished according to GHI [65], Nigeria's worsening insecurity can be argued to be another new dimension to the challenges of agricultural production in recent times. For instance, farmland has been taken over by bandits in communities across the northern parts of the country forcing an influx of people to migrate into cities and creating additional criminalities within the society coupled with the lack of finance. Azalahu, et al [66-70] have argued that the role of governance is to address unemployment and poverty and must work hard to ensure that security is provided to protect the lives and property of the citizens.

McClelland and Maslow's hierarchical needs theory posited that smallholder farmers need to be motivated by empowering them financially and providing them access to affiliate with financial institutions so that they could achieve business growth and maintain physiological needs. The structural functions of institutions and government are key to improving modernization, ecological modernization, eliminating dependency, and improving human needs in the agriculture sector, thus, reducing conflict through critically evaluated measures in financing agriculture.

2.3. Research Gap for Studying Financing Agriculture in Nigeria

Few researchers have done studies on comparative analysis of conventional and Islamic sources of financing agriculture and apart from Meutia, Adam, and Vegirawati [71-73], there is a general lack of research study on comparative analysis that presents a convergent view about the similarities and differences of the problems associated with conventional and Islamic sources of finance in financing agriculture. There is also a lack of adequate research on the practical knowledge gap about financing agriculture-based Islamic modes of financing.

In addition, there is also a lack of research study on the evidence gap of financial institutions' structural formation that limits access to funds to smallholder farmers in rural areas including international financial institutions.

There is also a lack of research study on the theoretical gap in financing agriculture with a focus on the positive theory of conventional financial institutions as compared to the normative theory of Islamic financial institutions with a focus on the total inclusion of smallholder farmers.

The lack of research study on the population gap of smallholder farmers marginalized in agricultural financing from both financial systems contributes to the high rate of unemployment, poverty, and malnutrition.

Little research study has been done on the implementation gap to address measures to mitigate these challenges. Critical thinking in the decision-making of management in government agencies and financial institutions has always been applied to resolve challenges of financing agriculture instead of research-based studies on institutional reorganization and collaborative efforts.

There is a lack of research on the methodological gap in the comparative analysis of conventional and Islamic sources of financing for agriculture. The application of the mixed method in the methodological gap will provide a better understanding of comparative financing in agriculture using both quantitative and qualitative methods.

3. Materials and Methods

Secondary data was used to collect information and the authors use a systematic review Synder [74, Tab. 2] of existing literature related to a comparative study on the roles played by private, public financial institutions, and agencies including international financial institutions in financing agriculture. The study adopts the purposive sampling procedure to identify relevant sources that provide in-depth information needed for this study. Therefore, the authors set up a criterion that provided detailed guidance on the steps and processes involved in the search for related literature Patel and Patel [75]. These steps or processes involved: (a) the use of a google search website, (b) identifying empirically based literature that focuses on the issues of financing agriculture in Nigeria, (c) English-based literature for the study, (d) literature published within the time frame of 2010 – 2021. This position was in line with the research objectives which were to evaluate the existing literature on the cause and effect of financing agriculture in Nigeria and outline the gaps in the existing literature. The authors paid attention to identifying the related literature within the criteria of selection as mentioned in (a-d) of these twenty-seven (27) articles, paper presentations, and books. Fourteen (14) articles provide information about the roles of public government agencies including the Agricultural Credit Guarantee Scheme Fund (ACGSF) of the Central Bank of Nigeria in partnership with the commercial banks and the Bank of Agriculture (BOA) on financing agriculture, eight (8) articles provide information about the roles of private financial institutions both conventional and Islamic, including conceptual literature to explain the operations of both conventional and Islamic financial systems. Three (3) articles provided information on the roles of international financial institutions. Two (2) articles provide information about unemployment and poverty based on the roles played by private, public, and international financial institutions and agencies toward financing agriculture.

The authors analyzed and evaluated the information that is available in the twenty-seven (27) publications by answering the research questions: (a) what information is available to shed light on the cause and effect of financing agriculture? and (b) what are the gaps that should be filled by future research investigation?

4. Results

From the themes of the literature review emerged new themes as follows; macroeconomic policy with a focus on electricity, bureaucratic bottleneck, and lack of repayment of loans. The lack of access to finance from a commercial bank and the Small Medium Enterprise Equity Investment Scheme (SMEEIS) and collateral issues, lack of banks' participation in a government program to access loans by farmers with inadequate funding from government agencies. The lack of information about government programs, guarantees, high-interest rates, and lack of contribution to the GDP. There is also a lack of branches in rural areas, lack of investment in Al Salam products in Islamic banks, diversion of funds, lack of clear intent for agricultural finance for development, cheating, and unfair dealings between farmland owners and farm investors in Islamic finance with noncompliance to shariah principles in agricultural finance. In addition, lack of policy framework, scarcity of land/land tenure agreements conflict, the unequal ratio in sharing crop yield, and lack of adequate study in Islamic finance were also observed as results from the literature review. The wrong approach to corporate social responsibility in conventional finance whose dimension of business is for economic benefit, the lack of international financial structural presence, the high national debt unrelated to investment in the agricultural sector, the bad advisory role of Bretton woods, and the privatization of public sector institutions, interest rates accruals and high exchange rates on foreign debts are also additional results. Lack of funding for technological innovations in mechanization, high cost of tariff and alternative energy sources, lack of funds and lack of use of non-debt instruments to acquire mechanical equipment and tractors, an increase of floods and droughts affecting agricultural production, incomplete remittance of funds to relevant agencies and diversion of funds by management with a high rate of unemployment, poverty, and malnutrition are prominent from the literature review.

5. Discussion

The themes or the results of the literature review stated were structured in line with the theories of sociology of development. The lack of macroeconomic policy is a major challenge to agricultural productivity in Nigeria and is specific to energy demand, which is in short supply. Iyoboyi, Okereke, and Pedro [15-17] and Otegbulu [58] and USAID [59] admitted that electricity supply is one existing problem faced in the agriculture sector. The public-private partnership in funding the energy sector has been a complete failure, and with the regulation of the energy sector, and eliminating the privatization of short-term profit, electricity productivity can be improved through structural reforms of the energy sector that will pave way for modernization of the agriculture sector.

The bureaucratic bottleneck in financial institutions and lack of repayment are existent problems that have contributed to the lack of access to finance for smallholder farmers. Incomplete documentation issues due to collateral are a major challenge in accessing loans, and the non-repayment of loans contributed to smallholder farmers being denied loans. While Nwosu et al [18-21] concurred that bureaucracy is a mitigating factor in access to finance by smallholder farmers, the lack of access to finance from commercial banks can be argued to be due to the high default rates experienced by commercial banks. This led to the creation of the Small Medium Enterprises Equity Investment Scheme (SMEEIS) under the bankers' committee in the Central Bank of Nigeria (CBN) to help finance small and medium businesses outside the commercial bank's operations, unfortunately, as Isa and Terungwa [22,23] argued the non-effective structural framework under the CBN to effectively process and disburse these funds remains challenging. The establishment of the Micro Finance Bank (MFB) under the Central Bank of Nigeria (CBN) to channel (SMSEEIS) now known as the (AGSMEEIS) funds has also proved ineffective due to the MFBs structural issues.

The lack of participation of commercial banks in government programs like the Agricultural Credit Guarantee Scheme Fund (ACGSF) and Nigeria Incentive Risk Sharing for Agricultural Lending (NIRSAL) is also a challenge to financing agriculture and Anetor, Ogbechie, Kelikume, and Ikepesu [24-26] and [27] concurred that the more participation of commercial banks in government programs, accessible funds to smallholder farmers will increase food production. While inadequate funding for the (ACGSF) should be enhanced, a recent study by Usman, Singh and Singh [28-30] attested to the fact that government should increase funding to the (ACGSF). The lack of information on government programs is also a challenge that limits awareness of smallholder farmers, in addition, the lack of institutional guarantees for smallholder farmers and the interest rate charges can be argued to be challenges that Ojo and Oluwaseun [31,32] revealed about financing agriculture under the (ACGSF) with structural issues, dissemination of government programs, and guarantees with high interest still being a problem. The contribution of agriculture to the Gross Domestic Product (GDP) of the nation through the Agricultural Credit Guarantee Scheme Fund (ACGSF) can be argued not to reflect economic growth as Mubaraq [33] revealed because the performance of the ACGSF from 1981-2019 based on the macro-economic indicators showed disparities. The exchange rate of the dollar to the naira from 1981-2019 showed that $1 in 1981 is equivalent to N0.6100 and $1milion in 1981 is equivalent to N1,600,000 million naira indicating the appreciated value of the Naira. $1 in 2019 is equivalent to N306.92k so $1 million in 2019 is equivalent to N 306 million Naira indicating the naira has depreciated. The government needs to focus on a Marshall Plan as Iyoboyi, Okereke and Pedro [15-17] have argued to address the macroeconomic policy of inflation, exchange rate, and, unemployment.

With the lack of branches in rural areas where smallholder farmers are domiciled and the need to address high default rates in repayment of loans as Mohammed, Sheng, and Mamun [34-36] stated, access to finance will continue to be limited and recycling loans for the benefit of other smallholder farmers will be affected.

The lack of investment in Islamic agricultural modes of financing like al-Salam, Mudarabah, and Musharakah as debt instruments is a major challenge in private Islamic financial institutions. While Ogunbado and Ahmed [37,38] argued that al-Salam as an alternative source of finance will improve agriculture production, the lack of investment in Islamic financial products in agricultural financing is still lacking. In addition, Yahuza and Idris [41,42] also argued that most of the agricultural financing done outside Islamic financial institutions does not engage the Islamic ethical rules in financing agriculture.

With the diversion of funds difficult to see in private financial institutions, Ahmed [39] argued that financing agriculture becomes difficult when funds meant for agricultural development are diverted for other uses which limit accessibility.

The importance of intention in the decision-making of the Islamic financial system is to achieve the consequential and utilitarian ethical standard goals of living a (Hayatu-daiyaban), good life for members of society. Al Nawawi [40] pointed out that the intention of Islamic financial institutions must be in tandem needs of the economic growth of society. In addition, Yahuza and Idris [41,42] reveal that cheating and unfair dealings, the unequal ratio in sharing the crop yield is attributed to non-compliance of shariah principles in financial agreements, including lack of policy framework for muzarah are all due to the lack of intention of Islamic financial institutions to adhere to partnership agreements in profit and loss business and economic activities. The need for a paradigm shift in understanding Islamic finance from a sociological perspective is critical and should be indispensable to ensure the financial inclusion of all based on the norms and values of Islamic jurisprudence as Laluddin [43] suggested, this will improve individual choices in financial selection and participation.

In contrast to Islamic finance towards financing agriculture, Schwartz and Carroll [45,46] in their work illustrated that corporate social responsibility focus on the economic domain of business, and in the context of this paper conventional financial institutions focus on business to maximize profit. And with the absence of financial structures to reach out to smallholder farmers by the world bank as Fadeyi [47] observed, financing rural agriculture by international financial institutions like the World Bank and Islamic Development Bank can never be achieved because it constraints smallholder farmers' access to finance their agricultural activities. The humongous debt Nigeria has according to the Debt Management Office [48] showed the inconsistent lack of correlation of foreign loans on the socio-economic development of the country with little or no significant contribution of agriculture to the Gross Domestic Product (GDP) as Mubaraq [33] further observed. In addition to conditions laid down in the process of the loan application, the World Bank strangles the socio-economic development of most developing countries, as Ashaver, Tavershima, and Dooshima [49-51] noted that the advisory decision on the privatization of public utilities, disengagement of staff, high-interest accruals and exchange rates in repayment have contributed to unemployment and poverty.

The government's dependency on loans to finance technological know-how import and lack of funding for smallholder local content fabricators for mechanization make Nigeria a periphery nation in world system classification. A study conducted by Osabohein, Adeleye and De Alwis [52-54] argued that in addition to finance, a 1% increase in mechanization increases food production, this means with a focus on financing agro-processors in mechanization technology, high yield agricultural production will be achieved. Furthermore, Adekola, Alabadan, and Akinyemi [55-57] posited a lack of funding for innovations in agricultural engineering for local fabricators, and the high cost of tariffs and alternative energy sources, investment in agro-processing with a high cost of finance for the agricultural sector make repayment impossible. With an increase in tariff as Otegbulu [58] suggested, electricity supply, unfortunately, is still a major obstacle to agro manufacturing a decade after. Further study on electricity supply by USAID [59] showed the importance of an electricity grid to support the large-scale production of maize for flour production. Funding the tractorization program on a short, medium, and long-term basis is practically non-existent in Nigeria. Hiyoruki [60] argued that the number of household members without animals and tractors as well as those with animals and no tractors combined are twice the ones with tractors and making dependence on animals more glaring in the absence of tractors.

The increase in floods and drought is a result of climate change and northern Nigeria is faced with these issues climate change. A study on climate change conducted by Ladan [61] indicated the challenges of floods due to heavy rains and drought due to high temperatures affecting agricultural production in Nigeria. To mitigate climate change effects on the environment the federal government established the ecological fund but Ifesinachi, Adibe, and

Wogu [62-64] also indicated, however, that the role of the management of the ecological fund in the diversion of funds for personal use and the lack of government's release of funds to respective agencies continue to impact the environment and agriculture with little or no funding from the private financial institutions.

Unemployment and poverty in Nigeria are rising and according to GHI [65], Nigeria is ranked 98th out of 107 countries with serious hunger levels. Hunger and malnutrition reflect poverty and poverty is a product of unemployment. While the report on hunger levels revealed problems related to unemployment and poverty, Azalahu et al [66-70] admitted that national security and good governance are key in addressing unemployment and poverty in Nigeria.

6. Conclusions

The meta-analysis of the literature review revealed the results about what the causes of financing agriculture are in the comparative review of conventional and Islamic sources of finance. The literature further revealed information about the effects of unemployment, poverty, and malnutrition as a consequence of private, public, and international financial institutions and agencies in financing agriculture which has affected the agriculture sector in Nigeria. In addition, the literature review revealed the research gap that classified the results for further research. The practical, evidence, theoretical, population, implementation, and methodological gaps revealed from the literature review of the roles played by the private, public, and international financial institutions and agencies will help solve the problems of financing agriculture and contribute to the knowledge based on "what" the causes of financing agriculture are in Nigeria? "what" the effects are in Nigeria? and "how" meta-analysis of the literature review will provide measures to mitigate the challenges and improve access to finance for smallholder farmers and agriculture development in Nigeria.

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REFERENCES

[1] B. Fawowe, “Access to Finance and Firm Performance: Evidence from African Countries”. *Review of Development Finance*, Volume 7, Issue 1, Pages 6-17. June 2017. https://www.sciencedirect.com/science/article/pii/S1879933717300106 DOI: 10.1016/j.rdf.2017.01.006

[2] N. Ekpo, N. Etukafia, and P. Udofot, "Finance Manager and the Finance Function in Business Sustainability". *International Journal of Business Marketing and Management. (IJBMM)* Volume 2 Issue 1. pp. 31-38. Jan. 2017. http://www.ijbmm.com/paper/Jan2017/9971864295.pdf

[3] B. Baraje, “What is Agriculture, Definition of Agriculture”. https://www.cropsreview.com/what-is-agriculture/(Accessed 29, Jan. 2022)

[4] World Bank, “Agriculture and Food” https://www.worldbank.org/en/topic/agriculture/overview (Accessed 10th, June 2022)

[5] M. B. Salau, “The Role of Slave Labor in Groundnut Production in early Colonial Kano”. *The Journal of African History* Volume 51 Issue 2, pp.147-165.July 2010. https://www.cambridge.org/core/journals/journal-of-african-history/article/abs/role-of-slave-labor-in-groundnut-production-in-early-colonial-kano/A85525B61339DB68BB2DA4C1E630C1D1 DOI:10.1017/S002185371000023X

[6] World Bank, “Economic Growth of Nigeria: Problems and Prospect”. *Report No. AF. 34C* Vol. 2, pp. 1- 199, Nov. 29, 1965. https://documents1.worldbank.org/curated/en/125601468292247324/pdf/multi0page.pdf

[7] O. A. Fadeyi, “Smallholder Agricultural Finance in Nigeria: The Research Gap”. *Journal of Development and Agricultural Economics.* Vol 10 (11), pp. 367-376, Nov. 2018. https://academicjournals.org/journal/JDAE/article-full-text-pdf/37A64E159021 DOI:10.5897/JDAE2018.0976

[8] World Bank “Nigeria to Improve Electricity Access and Services to Citizens” PRESS RELEASE NO: 2021/088/AFR https://www.worldbank.org/en/news/press-release/2021/02/05/nigeria-to-improve-electricity-access-and-services-to-citizens

[9] Statista. “Population in Africa 2020, by country”. Statista. 1st Feb. 2022. https://www.statista.com/statistics/1121246/population-in-africa-by-country/

[10] S. S. Adua, “History of Islamic Banking in Nigeria”. *International Journal of Humanities and Social Sciences*. Volume 8 issue one. 67-74. Dec-Jan 2019. https://www.academia.edu/38197362/9_formate_IJHSS_Historical_background_of_Islamic_banking_in_Nigeria_pdf

[11] Global Hunger Index, “Global Hunger Index Scores by 2021, GHI, Rank” https://www.globalhungerindex.org/ranking.html (Accessed Feb. 2022)

[12] World Bank, “Deep Structural Reforms Guided by Evidence Are Urgently Needed to Lift Millions of Nigerians Out of Poverty, Says New World Bank Report” PRESS RELEASE: MARCH 22, 2022 https://www.worldbank.org/en/news/press-release/2022/03/21/afw-deep-structural-reforms-guided-by-evidence-are-urgently-needed-to-lift-millions-of-nigerians-out-of-poverty#:~:text=According%20to%20the%20report%2C%20which,below%20the%20national%20poverty%20line.

[13] M. Iyoboyi, S. F. Okereke and L. M. Pedro, “Macroeconomic Policy and Agricultural Value Chain in Nigeria”. *UKH Journal of Social Sciences.* Volume 2 Number 2. pp. 31-40. Dec. 2018. https://www.researchgate.net/publication/329968631 DOI:10.25079/ukhjss. v2n2y2018.pp31-40

[14] F. O. Nwosu, N. N. O. Oguoma, N. G. Ben Chendo, and A. Henri Ukoha, "The Agricultural Credit Guarantee Scheme: Its Roles, Problems and Prospects in Nigeria's Quest for Agricultural Development" Vol.2 Issue 2 pp. 87-90, Dec. 2010 http://www.sciencepub.net/researcher/research0202/10_2159_ACGS_research0202_87_90.pdf

[15] K. Isa and A. Terungwa, "An Empirical Evaluation of Small, Medium, Enterprises Equity Investment Scheme in Nigeria". *International Conference on Economics and Finance Research IPEDR* vol. 4, 2011. IACSIT, Singapore. http://ipedr.com/vol4/80-F10093.pdf

[16] F. S. Anetor, C. Ogbechie, I. Kelikume, and F. Ikepesu, "Credit Supply and Agricultural Supply in Nigeria; A Vector Autoregressive (VAR) Approach". *Journal of Economic and Sustainable Development.* Volume 7, No. 2, 2016. https://core.ac.uk/download/pdf/234647384.pdf

[17] J. Usman, P. K. Singh, and O. P. Singh, "The Impact of Agricultural Credit Guarantee Scheme Fund to Agricultural Produce in Nigeria". *Indian Journal of Economics and Development*. 13(2a):605. January, 2017.https://www.researchgate.net/publication/316479468_The_impact_of_agricultural_credit_guarantee_scheme_fund_ACGSF_to_agricultural_produce_in_Nigeria DOI:10.5958/2322-0430.2017.00139.1

[18] O. Ojo and Y. Oluwaseun, "Agricultural Financing and Economic Development in Nigeria: A Case Study of Agriculture Credit Guarantee Scheme Fund". *International Journal of Advances in Management and Economics*. Volume 04, Issue 04, pp. 113-119, July-Aug. 2015. https://www.managementjournal.info/index.php/IJAME/article/view/397/340

[19] S. Mubaraq, "Agricultural Credit Guarantee Scheme Fund (ACGSF) and Agricultural Performance in Nigeria: A Threshold of Regression Analysis". *Munich University Library*. Jan. 2021. https://mpra.ub.uni-muenchen.de/105564/

[20] A. Mohammed, Z. Sheng, and S. Mamun, "Performance Review of the Bank of Agriculture in Katsina State Nigeria". Asian Journal of Agricultural Extension, Economics, and Sociology. Volume, 17 Issue, 3 pp. 1-9, June 2017. https://www.researchgate.net/publication/317430140_Performance_Review_of_the_Bank_of_Agriculture_in_Katsina_State_Nigeria DOI:10.9734/AJAEES/2017/32815

[21] A. F. Ogunbado and U. Ahmed, "Bay Salam as an Islamic Financial Alternative for Agricultural Sustainability in Nigeria". *Journal of Islamic Economics, Banking, and Finance*. Volume, 11, Number, 4, Oct-Dec. 2015. https://ibtra.com/pdf/journal/v11_n4_article5.pdf

[22] E. Ahmed, "Role of Commercial Banks in Funding Agriculture in Nigeria; A Case Study of Union Bank of Nigeria Plc Umahia, Abia State". *Repository.mouau.edu.ng.* 2021. https://repository.mouau.edu.ng/work/view/role-of-commercial-banks-in-funding-agriculture-in-nigeria-a-case-study-of-union-bank-of-nigeria-plc-umuahia-abia-state-7-2

[23] An Nawawi Yahaya bin Sharaf. "Hadith No. 1". In The 40 Hadith of Imam an -Nawawi; Abridged from Arabic Sources by Umm Muhammad, ABDUL-QASIM PUBLISHING HOUSE in Collaboration with SAHEEH INTERNATIONAL Professional Editing and Typesetting of Islamic Literature. King Fahad National Library Cataloging-in-Publication Data, pp. 1-3. 1999 https://d1.islamhouse.com/data/en/ih_books/single2/en-hadith-nawawy-sahih.pdf

[24] B. S. Yahuza and M. Idris, "An Assessment of Shariah Compliant Muzarah with Kashe Muraba in Kano State". *A Paper Presented at the Second International Conference on Islamic Banking and Finance Organized by the International Institute of Islamic Banking and Finance (IIIBF), Bayero University, Kano-Nigeria*. Between 28th And 30th Apr. 2015 https://www.academia.edu/19588172/An_Assessment_of_Shariah_Compliant_Muzaraah_with_Kashe_Muraba_in_Kano_State

[25] H. Laluddin, "A Review of the Three Major Sociological Theories and an Islamic Perspective". *International Journal of Islamic Thought.* Vol. 10, Issue 2, pp. 8-26 Dec. 2016. http://www.ukm.my/ijit/wp-content/uploads/2016/12/IJIT-Vol-10-Dec-2016_2_8-26.pdf DOI:10.24035/ijit.10.2016.002

[26] A. B. Carroll, "Carroll's Pyramid of CSR: taking another look" *International Journal of Corporate Social Responsibility* 1, Article No: 3, July. 2016 https://jcsr.springeropen.com/articles/10.1186/s40991-016-00046#:~:text=Carroll's%20four%20part%20definition%20of,(Carroll%201979%2C%201991)

[27] M. S. Schwartz and A.B. Carroll, "Corporate Social Responsibility A 3 Domain Approach". *Business Ethics Quarterly*, Volume 13, Issue 4, pp. 503-530. Jan. 2003. https://www.researchgate.net/profile/Archie-Carroll/publication/261827186_Corporate_Social_Responsibility_A_Three-Domain_Approach/links/54a17ab80cf267bdb902c00f/Corporate-Social-Responsibility-A-Three-Domain-Approach.pdf DOI:10.2307/3857969

[28] O. A. Fadeyi, "Smallholder Agricultural Finance in Nigeria: The Research Gap". *Journal of Development and Agricultural Economics*. Vol. 10 (11), pp. 367-376. Nov. 2018. https://academicjournals.org/journal/JDAE/article-full-text-pdf/37A64E159021 DOI:10.5897/JDAE2018.0976

[29] Debt Management Office, "Nigeria's Total Public Debt Portfolio" Mar. 2022 https://www.dmo.gov.ng/debt-profile/total-public-debt/3938-nigeria-s-total-public-debt-as-at-march-31-2022/file

[30] B.T. Ashaver, B. Tavershima, and U. Dooshima, "The Impact of Bretton Woods Institutions (IMF & World Bank) on the Socio-Economic Development of Nigeria". *Zaria Sociological Journal*. Vol.5, Number 1. pp. 1-12. June 2017. ISSN 2360-8552. An official publication of the Department of Sociology, Ahmadu Bello University Zaria-Nigeria.

[31] R. Osabohein, N. Adeleye, and T. De Alwis, "Agro Financing and Food Production in Nigeria". Heliyon Volume 6, Issue 5. May 2020. https://www.sciencedirect.com/science/article/pii/S2405844020308458 DOI: 10.1016/j.heliyon. 2020.e04001

[32] K. A. Adekola, B. A. Alabadan, and T. A. Akinyemi, "China Agricultural Mechanization Development Experience for Developing Countries". *International Journal of Agriculture Innovations and Research*. Volume 3, Issue 2. 29th.Oct. 2014. https://ijair.org/administrator/components/com_jresearch/files/publications/IJAIR_1006_Final.pdf

[33] A. C. Otegbulu, "A Contingent Valuation Model for

Accessing Electricity Demand". *Journal of Financial Management of Property and Construction*.16(2), pp. 126-146. Aug. 2011 https://www.researchgate.net/publication/235313521_A_contingent_valuation_model_for_assessing_electricity_demand DOI:10.1108/13664381111153114

[34] USAID, "NIGERIA POWER SECTOR PROGRAM: AGRICULTURAL PRODUCTIVE USE STIMULATION IN NIGERIA: VALUE CHAIN & MINI-GRID FEASIBILITY STUDY". July 2020 https://pdf.usaid.gov/pdf_docs/PA00WQX4.pdf

[35] T. Hiyoruki, "Market Imperfections for Tractor Service Provision in Nigeria: *International Perspectives and Empirical Evidence". International Food Policy Research Institute (IFPRI).* WORKING PAPER 32. June 2016. https://nssp.ifpri.info/files/2016/06/NSSP-Working-Paper-32_June-2016.pdf

[36] S. I. Ladan, "An Appraisal of Climate Change and Agriculture in Nigeria". *Journal of Geography and Regional Planning.* Volume 7 (9), pp.176-184. Nov. 2014. https://academicjournals.org/journal/JGRP/article-full-text-pdf/4605B0148261 DOI:10.5897/JGRP2013.0405

[37] K. Ifesinachi, R. Adibe and C. Wogu. "The Management of Ecological Fund and Natural Resource Conflicts in Northern Nigeria 2009-2013". *European Scientific Journal*, Vol. 11, No. 25, Sept. 2015. https://eujournal.org/index.php/esj/article/view/6208

[38] Global Hunger Index, "Nigeria" 2021. https://www.globalhungerindex.org/nigeria.html#:~:text=In%20the%202021%20Global%20Hunger,of%20hunger%20that%20is%20serious

[39] F. Azalahu, F. A. Ngozi, E. John, A. Marufu and E. U. Joseph, "Unemployment and Poverty: Implication for National Security and Good Governance in Nigeria". *International Journal of Public Administration and Management Research (IJPAMR).* Vol.2, No.1, pp. 1-11. July,2021.http://journals.rcmss.com/index.php/ijpamr/article/view/109

[40] I. Meutia, M. Adam and T. Vegirawati, "Comparative Analysis of Agricultural Financing in Some Countries". *Tazkia Islamic Finance and Business Review.* Vol.11, No.1, 2017. https://www.tifbr-tazkia.org/index.php/TIFBR/article/view/134 DOI:10.30993/tifbr. v11i1.134

[41] Synder, H. "Literature Review as a Research Methodology: An Overview and Guidelines". *Journal of Business Research.* Volume 104, pp.333-339. Nov. 2019.https://www.sciencedirect.com/science/article/pii/S0148296319304564 DOI:10.1016/j.jbusres.2019.07.039

[42] M. Patel and N. Patel, "Exploring Research Methodology: Review Article". *International Journal of Research and Review*. Volume 6 Issue 3. Mar. 2019. https://www.ijrrjournal.com/IJRR_Vol.6_Issue.3_March2019/Abstract_IJRR0011.html