



The Financing Problems Facing the Agricultural Sector in Nigeria and the Prospect of Waqf-Muzara'ah-Supply Chain Model (WMSCM)

¹ Oladokun Nafiu Olaniyi, ² Mohamad Asmy Bin Mohd Thas Thaker*,
³ Hassanudin Mohd Thas Thaker, ⁴ Anwar Allah Pitchay

^{1,2} Faculty of Economics & Management Sciences, International Islamic University Malaysia,
Jalan Gombak, 53100 Kuala Lumpur, Malaysia

³ Department of Accounting and Finance, Faculty of Business, Economics and Accounting,
Kompleks Pejabat Damansara (KPD). 50490, Kuala Lumpur, Malaysia.

⁴ School of Management, Universiti Sains Malaysia, 11800 Pulau Pinang, Malaysia
*Corresponding author: asmykin83@yahoo.co.uk

Abstract: Agriculture sector becomes important sector in many developing countries including in Nigeria. The contribution of agricultural sector to the development of Nigeria is considerable. This important sector was the economic backbone upon which the government of the Federal Republic of Nigeria relied for its foreign exchange and revenue. A country was once a net exporter of agricultural products. However, since the discovery of oil in the early 1960, agricultural productivity has continually decreased due to many problems, especially related to financial aspect. Several programmes and policies have been adopted by various administrations to find solution to the dwindling agricultural productivity but to no avail. These solutions have mainly focused on alleviating the financial problems the farmers face. Usually financial intermediaries including banks would provide micro-financing to the farmers but with high interest rates coupled with collateral requirements. Hence, this mode of financing has not produced any significant result. This study will therefore examine problems facing agricultural sector in Nigeria with special emphasis on its financial aspect and propose a Waqf-Muzara'ah-Supply Chain model (WMSCM). Under this model, Waqf fund will be used for providing financial facility of the farmers. The relationship between farmers and financial institutions is based on partnership where profit and loss will be shared by both parties. This will enhance commitment by and cooperation among both parties to ensure the success of the business. Furthermore, the issues of collateral and high interest rate that constrain the financial ability of the farmers and their agricultural output are inherently solved by the model. Moreover, the model has features of investment and risk diversification for both the financial institutions and the farmers that will lead to high agricultural productivity and employment generation in the economy.

Keywords: Agriculture, Financial Problem, Waqf, Muzara'ah, Supply Chain, Nigeria

Introduction

The dwindling productivity witnessing in the agricultural sector in Nigeria has become a concern not only for the government but for the society as a whole (Phillip et al, 2009). Due to this, cost of agricultural product keep increasing at astronomical rate and gradually posing potential food insecurity in the country. One of the main challenges facing this important sector is the problem of financing.

Going back to the pre-oil discovery period in Nigeria, Nigeria used to be a net export of agricultural product and the income generated was used to finance government budget. Indeed, during this period, agricultural sector account for more than 70 percent of the total export while serves as the main source of employment for most Nigerian (Daramola et al, 2007). The contrary is the case nowadays since the discovery of oil sector in the early 1960s. As a result of oil discovery, attention started shifted from agricultural sector to oil sectors which currently account for 76 percent of the government revenue (UNECA, 2013).

As part of the effort to arrest this development, government came up with various programs that are mainly aimed at minimizing the effect of financing. Some of the programs are National Economic Empowerment and Development Strategy (NEEDS) and National Food Security Program (NFSP). Most of these programs failed due to issues among which are high interest rates, inaccessibility to finance and low government budget on agricultural sectors (Ihinmodu, 2004; Daramola et al, 2007; Ifeanyi et al, 2008). Though most studies have been done regarding the problem of financing, most of these studies are based on the conventional models that have been proven to be ineffective.

An alternative model that has the potential to improve the agricultural condition needs to be explored. Accordingly, this present study is aim at exploring the potential role of the Waqf-Muzara'ah-Suply Chain Model (WMSCM) towards reducing the financing problems facing the agricultural sector in Nigeria.

Literature Review

Overview of Nigerian Agriculture Sector

Country such as Nigeria, one of their main economy activities is an agricultural industry. The contribution of agricultural industry towards Nigeria economic growth is much more significant as compared with other industries. Therefore, to make it agricultural industry to be a meaningful industry, one of the factors should be addresses is accessibility towards credit to fund agricultural production such as facilitate the production of farm produce, crops and livestock. As of now, the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) plays an important role in providing source of funds to the farmer in Nigeria. As mentioned by Adetiloye (2012), this bank have been playing prominent role and offered various packages of incentives involving agricultural industry. Moreover, the role of informal financial market are denied whereby family member and friends are contributes funds to the farmers. As stated by Udry (1993) and Steel et.al (1997), the growth of this market recorded significant movement whereby farmers can get funding from various providers instead of relying on financial institution. However, the accessibility towards agricultural financing has restricted the development of agricultural industry in Nigeria whereby not all farmers can get financing from financial institutions.

Agricultural sector in Nigeria is widely characterized with low productivity since the early 1960s despite the existence of various development plan directed to this important sector. After independent, the first National Development Plan was formulated for the period 1962-1968 with the purpose of increasing the production of export crops. During this period, seeds were distributed to farmers, farm settlements were established, cooperative plantation was formed and tractor-hiring units were established in order to ensure that the programme was successful.

Thereafter, the second National Development Plan (N.D.P) was formulated to cover the period 1970–1974 with the aim of creating employment opportunities for the rural people. Between 1971 and 1973, government established the Agricultural Research Council (A.R.C.) and National Accelerated Food Production Program (N.A.F.P.P.) respectively as part of the

efforts to boost research activities. Between 1974 and 1980, government embarked on a policy called, direct food production policy by establishing the Nigerian Grain Production Company (N.G.P.C.). During this period, Department of Agricultural Cooperatives (D.A.C) was also established in collaboration with other projects such as Strategic Grain Reserve Program (S.G.R.P.), Operation Feed the Nation (O.F.N), River Basin and Rural Development Authorities (R.B.D.A), the Lands Use Acts, the Green Revolution (G.R) program and Federal Agricultural Coordinating Unit (F.A.C.U) to provide support services such as irrigation, inputs and extension services to farmers.

In recognition of the fact that most farming activities are done in the rural areas, government decided to adopt the integrated approach by embarking on projects directed at developing the rural areas. To achieve this goal, government established the Directorate for Food, Road and Rural Infrastructure (D.F.R.R.I) in 1986 to construct and maintain feeder roads. Agricultural Production and Marketing (A.P.M) board was also established to enhance support services such as inputs supply and agricultural mechanization to farmers.

According to the report FAOSTAT the total quantities of foods imported rose from \$501,746,000 in 1961-1970 to about \$1.9 billion in 2006 while export rose only from \$162,493,000 in 1961-1970 to \$519,253,000 in 2006. The poor export performance is a reflection of the poor performance of the sector, which can be attributed to the discovery of petroleum in commercial quantities in the early 1960 that make successive administration to pay less attention to agriculture. In the same report, Cereal production in which the country has the highest performance only has its share in the world grow from 0.47 percent in 1971-1981 to 1 percent in 2004. Cereal is also the common staple food that serves as the major food for majority of people in Nigeria. There is the need to have high annual grow rate in food production especially in cereal in order to avoid food security in the Nigeria.

However, it is very clear that, the problem in obtain financing for agricultural business is becoming one of the main issues in Nigeria. As mentioned above, agricultural industry is a backbone for the Nigeria. Therefore, the problem in regards with agricultural financing need to resolved to save country heritage. Since financing has been identified and still considered as the main obstacle to increase food production, government came up with numerous microfinance institution programmes among which are Commercial Bill Scheme (C.B.S), Regional Commodity Board (R.C.B), Community Banks and other policies aimed at easing credit availability for the farmers. However all of them failed based on the observation of Ihinmodu (2004) due to inadequate funds for loans, lack of collateral by the farmers and government policies.

Agricultural Credit Guarantee Scheme (A.C.G.S) was also established to guarantee loans granted to farmers in order to encourage the banks to grant credit to the farmers. In addition to the existing micro-credit programmes, National Economic Empowerment and Development Strategy (NEEDS) are also established with the main objectives of reducing poverty and empowering the rural people. Since the establishment of the National Economic Empowerment and Development Strategy (NEEDS) in 2004, its impact is yet to be felt.

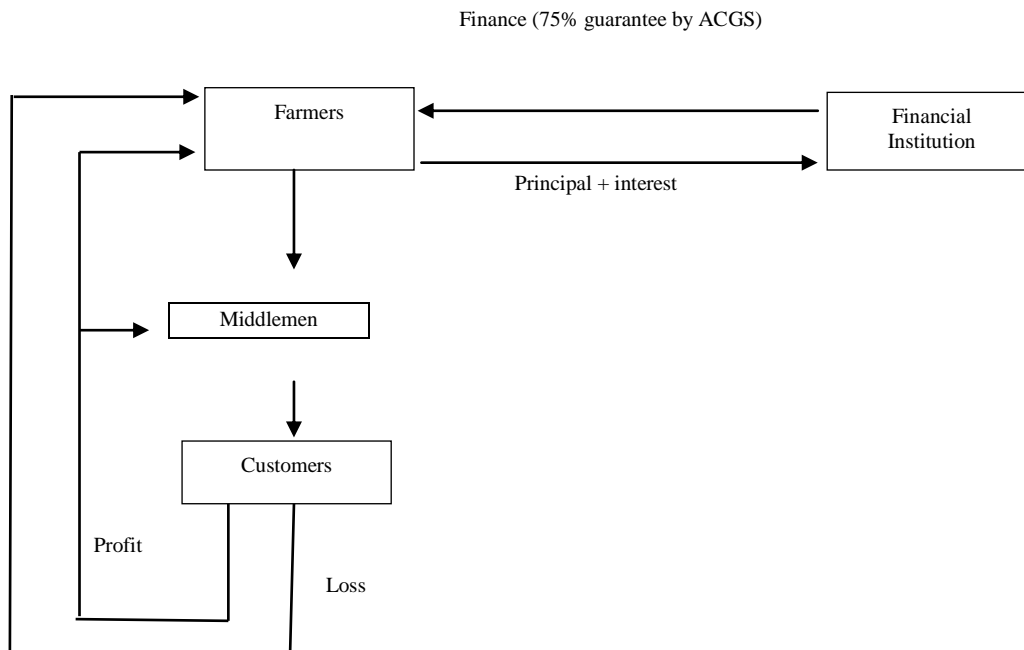
The Existing Model Of Financing Agriculture In Nigeria

There are three models adopted by Nigerian financial institution to provide financing for agricultural industry. Examples of models are as follows;

- Agricultural Credit Guarantee Scheme (ACGS)
- The Nigeria Agricultural Cooperative Bank (N.A.C.B)
- The Microfinance Model

Agricultural Credit Guarantee Scheme (ACGS)

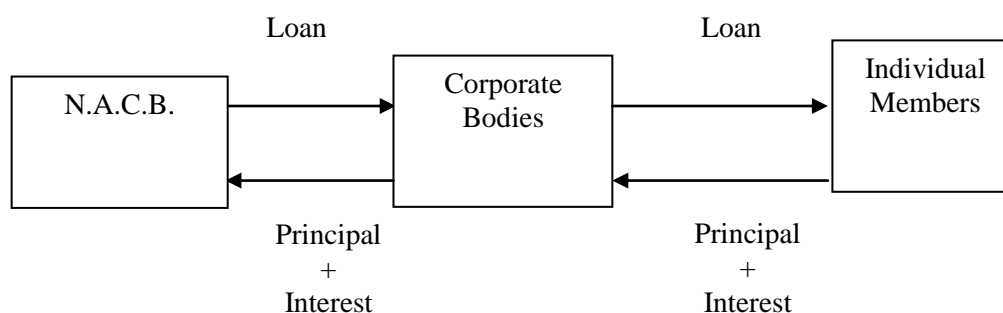
Figure 1. Model of the Agricultural Credit Guarantee Scheme (ACGS)



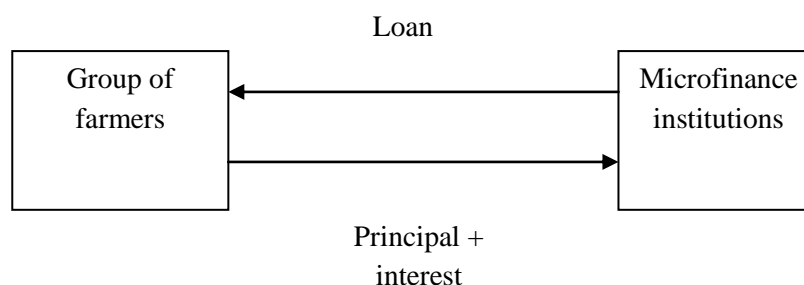
The Agricultural Credit Guarantee Scheme (A.C.G.S) was initiated by both the Federal Government and Central Bank of Nigeria (CBN) in 1973 with share ownership of 60 percent and 40 percent respectively. The initial paid up capital was 100 million naira. The main purpose of the scheme is to provide guarantee cover for the loans advanced to the agricultural sector by the banks with the pledge to pay to the banks 75 percent of any outstanding default by the borrowers. The Central Bank of Nigeria (CBN) opened agricultural finance offices in all its branch offices in order to facilitate the day-to-day operations. Here, the financial institutions involved in the scheme grant loan to the farmers with a promise to pay back the principal and the interest rate. However, before the loans are granted, the farmers must possess acceptable securities that must include any of the following: land owned by the borrowers, moveable property of the borrowers, a life assurance policy and any other securities acceptable to the banks. After harvesting, the products mostly pass through the middlemen before reaching the final consumers.

The Nigeria Agricultural Cooperative Bank (N.A.C.B)

The Nigeria Agricultural Cooperative Bank (N.A.C.B.) model as shown in Figure 2 was also developed to ease credit availability to the local farmers and was designed to operate based on the above structure. The Nigeria Agricultural Cooperative Bank (N.A.C.B.) provides loans to the corporate bodies such as commercial banks for disbursement to the farmers. The corporate bodies lend this money to the farmers who promise to pay the principal and the interest rate. High interest rate is unavoidable under this model since both the interest paid by the corporate bodies to the Nigeria Agricultural Cooperative Bank (N.A.C.B.) and the interest portion of the corporate bodies will be transferred to the poor farmers who normally ended up with little or no profit and subsequently default on the loans. There is therefore little or no motivation for the farmers to increase their productivity using this model.

Figure 2: The Nigeria Agricultural Cooperative Bank Model (N.A.C.B)***The Microfinance Model***

The formal microfinance institutions have a very short story in Nigeria. Anyanwu (2004) stated that the operation of the formal microfinance institutions in Nigeria started after 1981. They offer loan facility to those considered un-bankable by the banking system. As shown in Figure 3, micro finance institutions provide banking and insurance services to their customers. Lending under this model is done on group basis made up of a group of farmers. The financial institutions provide loan facility to the group of farmers who make collective pledge to repay the loan in addition to the interest rate. The pledge made by the group serves as collateral since the group will pressurize any irresponsible member to repay the loan in time to avoid blocking the chance of others from getting another loan the next time. The advantages of the formal microfinance institution are that, it emphasizes less on collateral which makes it possible for poor people to access loan. The high repayment rate was achieved because of group based lending system.

Figure 3: The Microfinance Model***The Problems Of Existing Model In Nigeria***

According to Eyo (2008), credit facilities, inflation and slow technology adaptation have been identified as the main problems facing agricultural sector in Nigeria. He like many other researchers recommended the availability of credit facilities at low interest rate, reduction in inflation rate and increase foreign private investment in agriculture. Even though if interest rate is reduced, it will still have effect on the farmers' income due to the fact that all the business associated risks are transferred to the farmers and the chance of intellectual contribution that exist under partnership will be missing. More so, the periodic payment can act as constrain for expansion. All these suggestions were and are part of the government policies from time to time towards the revitalization of the agriculture sector but to no avail.

In order to ease credit availability to the under-banked, government instituted various policies among which are: Commercial Bill Financing Scheme (C.B.F.S) (1962), National Commodity Boards (N.C.B) (1977) and Export Financing and Rediscount Facility (1987). Those programmes according to Olaitan (2006) were biased towards developing agriculture due to high interest rate, collateral requirement and mode of operations of the banks.

To find solution to some of the problems attributed to those policies, the federal government in partnership with the Central Bank of Nigeria (CBN) established Agricultural Credit Guarantee Scheme (ACGS) in 1977 with the federal government owns 60 percent while the Central Bank of Nigeria (CBN) own the remaining 40 percent. The purpose of the scheme is to provide guarantee cover for the loans advanced to the agricultural sector by banks with the pledge to pay to the banks 75 percent of any outstanding default by the farmers. However, the farmers must possess acceptable collateral before being considered for any loan. To further enhance the scheme, the paid up capital was increased from 100 million naira to 3 billion naira with increment of loan limit to borrowers.

In addition to this, Interest Drawback Programme (I.D.P) was also formed to rebate 40 percent of the accrued interest rate to the farmers who repay their loans according to the contractual term. More so, the Community Banks were also approved to participate in the scheme. Upon all this numerous innovation and resources commitment, they failed as mentioned earlier due to the following six constraints: Unwillingness of the banks to lend to rural farmers, poor monitoring, diversion of funds, inadequate Staff Training, conflict resulting from numerous alternatives sources of credit with different interest rate and inability of the borrowers to offer acceptable collateral.

Removal of the subsidies by the government due to the adoption of the Structural Adjustment Programme (S.A.P.) resulted to high cost of inputs. The scheme was also inefficient due to the problem of lack of trained personnel to maintain the equipment. According to the various studies, the past and existing solutions to those problems failed due to high interest rate, unwillingness of the banks to lend to the farmers, too much emphasis on collateral, poor monitoring and high cost of input.

David (2011) highlighted the problems with agricultural financing in several points. One of the points is lack of adequate skills to deliver services effectively. Financial institutions in Nigerian are normally considering in giving agriculture loan without the use of trained agricultural credit officers with knowledge of agriculture and the constraints holding back farmer performance. In addition, the repayment systems of loan are below standard and its resulting in poor management in repayment of loan. Moreover, David (2011) also mentioned that there was a inadequate funding of public agricultural financing institution; The NACRDB, has a capital base of N50 billion to be contributed to by the Federal Government and the CBN in a 60:40 ratio. Up to now, only about N23 billion has been paid. These institutions cannot deliver effectively in the face of this dearth of funding. According to Tewodaj et al (2008), the federal government expenditure allotted to agricultural sector between 2001 and 2005 was less than 2 percent of the total federal expenditure. This is far below the expenditure recommended by the international standard for agriculture.

The Informal Rural Financial Institution (I.R.F.I) that remains the last resort for the rural dwellers but with high interest will definitely result to low profitability. Ejike (2012) in his studies about the problems of agriculture in Nigeria attributed insufficient farm inputs, lack of working capital, low capital expenditure on agriculture by the government, low level of education, low rate of technology adoption and post-harvest loses as the major causes of low productivity of agricultural products in Nigeria.

After the government liberalized the economy in the 1990, major agriculture inputs such as, fertilizers, pesticides and other farm inputs have been out of reach for rural farmers due to the subsidies removal. In addition to this, Oluwasola et al, (2008) identified the problem of poor

linkages between the rural and urban area and lack of development in the rural area as some of the reasons for the continuous declines in agricultural productivity. The farmers always face difficulty in transporting their products to the market due to high transportation cost which results to huge post-harvest loss. In addition to this, there is also a big gap between rural and urban area in term of infrastructures and remuneration in Nigeria.

Due to the liberalization of economy in the 1990, Daramola (2005) raised an important argument on the effectiveness of government policies and competitiveness. According to the Daramola (2005), the importance of government policies and competitiveness may astronomically influence the Nigeria rice production. They are summarized to include: high interest rate, instability of government policies, high cost of inputs like imported equipments, decaying infrastructures, poor research funding and corruption and poor standard in marketing of farm products. Equally, in the study conducted by Josephine (2011), she has highlighted that the instability has impacted negatively on the performance of primary institutions responsible for policy monitoring and implementation. There were cases of sudden reversal of policy which has resulted to incomplete and abandoned projects. This creates distortions in the macro-economic structure and low productivity. According to CBN (2004), state owned programmes particularly, those that lack profit incentive, are very vulnerable to political influence. Borrowers were frequently selected for political reasons rather than because they fit the profile of the ostensibly targeted beneficiaries.

However, financial constraint remains the most important since it is the means through which others basic inputs can be acquired. For instance, high cost of credit prevents farmers from acquiring fertilizers and other agrochemicals. This however has serious negative effects on the outputs. Eyo (2008), in his study of the effect of macroeconomic on agricultural growth in which regressing model was used to test the effect of some macroeconomic variables on growth in agricultural sector in Nigeria, it was found that slow technological progress, inadequate credit facilities and inflation have negative effects on the productivity in the agricultural sector. The implication of lack of credit facility is one of the reasons for poor adaptation to modern farming equipments that results to high yield.

The Need for Alternative Model

Although several models have been introduced, the failure of the existing models used in financing agriculture in Nigeria, as highlighted by Olaitan (2006), U.S.A.I.D., Eyo, (2008), Iganiga et al, (2008), Ukeje, (2004) occurred basically due to the following reasons: burden of collateral on the farmers, high risk that the farmers bear due to the high interest rate which also erodes their profits, high cost of agricultural produce due to the presence of middlemen, lack of proper marketing system and value added mechanism as the relationship between the farmers and the financial institutions is basically creditor-debtor relation, and poor quality of human resource among the farmers.

Therefore, such failures call for an alternative model that will be based on collateral-free, profit-risk sharing relationship, cost efficient, increase extension services and interest free system. We therefore propose the Waqf-Muzara'ah-Supply Chain Model (WMSCM), which is a value added and participatory form of contract between the farmers and the financial institution as an alternative to the interest-based system. The WMSCM is therefore the most suitable models that can solve or minimize this problems due to the fact that, no collateral or interest is required, it is free from middlemen interference, enhance extension services, profit realized and risk from the investment are shared among the parties, develops human resource capacity and facilitates value added products.

Proposed Model

Overview Of Cash Waqf And Its Characteristics

Cash Waqf means the devotion of an amount of money by a founder and the dedication of its usufruct in perpetuity to the prescript purposes" (Mohsin, 2008). In this case, the donor endowed Cash Waqf instead of real estate or fixed asset. The Waqf needs to fulfil the three main important characteristics, namely (i) irrevocability (ii) perpetuity, and (iii) inalienability. The donor cannot revoke his donation at any time once the property is declared as Waqf, and it is known as irrevocability. Perpetuity of Waqf property occurs where the declaration by the donor is binding and perpetual in nature, hence fixed asset properties. It is known as perpetuity of Waqf property. This perpetuity brings benefit for both to donor and beneficiaries. Meanwhile, the Waqf property is not subject to any sale, disposition, mortgage, gift, inheritance, attachment, or any alienation whatsoever and it is known as inalienability of Waqf property .

The use of Cash Waqf comes into the field in 8th century after Imam Zufar had approved its use (Cizakza, 2004). Based on his view, Cash Waqf can be invested through Mudarabah and the profits generated would be spent for the charity purposes. Later, in early 15th century these endowments (Cash Waqf) had been approved by the Ottoman courts and they had become the dominant form of Waqf formation and extremely popular till the end of the 16th century (Cizakza, 2004). During the Ottoman period, education, public works, health and religious services were financed by Cash Waqf (Toroman et.al, 2007). Due to the historical and golden role of Cash Waqf that had played in the past, nowadays in 21st century, there is growing evidence of the revitalization of interest, promotion and rethinking on the role of Cash Waqf in community development.

A good number of studies pointed out that Cash Waqf can be used as source of financing agriculture sector through small and medium enterprises (Cizakca, 2004; Mannan, 1999; Toraman & Yilmaz, 2004; Kahf, 2007; Masyita & Febrian, 2004). According to these studies, the proper utilization of Waqf mechanism as a source of financing can play the role in providing sufficient fund to the farmers and agro-based entrepreneurs.

Supply Chain

According to Russell& Tailor (2009), supply chain has been described as all activities associated with the flow and transformation of goods and services from the raw materials stage to the end users as well as information flow. The chain in agricultural sector starts with the suppliers of inputs (i.e. seeds, fertilizers, pesticides) and which are supplied to the farmers. These products however reach the end users either directly from the farmers or through an intermediary. Supply chain has also been defined as a network of facilities that procure raw materials, transform them into intermediate goods and then final products which are then delivered to the customers through a distribution system, Lee and Billington (1995).

Based on the study done by DHL with technical University Darmstadt, three elements that constitute the driven force for the risen need of supply chain are: increasing homogenization of economic region, rising customer requirement and new development in information technology (Larbani et.al, 2013). William and John (2007) stated that supply chain can lead the firm cost reduction, quality improvement, response time and flexibility while increasing sustainable competitive advantages and improved profitability. According to the study done by DHL with technical University Darmstadt, the following benefits of supply chain have been identified: (i) It forges the spirit of partnership, (ii) improved logistic services at all levels of the chain due to holistic view of the flow of information, goods, finance and legal activities and (iii)

means for companies to reach their primary objectives of growth, profit, company value and customer orientation.

The supply chain mechanism has been successfully applied as stated above; however, it has some shortcomings. The most important is that the capital provider, the bank or financial institution, which is an essential component in any economic activity, is not directly involved in the supply chain. The relation between the supply chain partners and the capital provider is debtor-creditor. The capital provider does not take any risk; therefore, he/she can never be a partner in the supply chain. In addition, he/she requests collaterals.

In agricultural activities, the Muzara'ah model that are proposed in this study can be used as a solution to involve the capital provider in the supply chain to make it complete. Kahf and Fahim (1992) identify the following principles that can be used to finance agriculture: [1] Partnership-based financing which involves the principles of sharing profit or loss associated with the production or sharing the output. This principle can take the form of Muzara'ah or Musaqat and [2] Leasing-based financing that involves the leasing of agricultural equipments to farmers on deferred payment. The institution involved can lease this equipment with cash and lease it to the farmers on deferred bases.

According to Kahf and Fahim (1992), Muzara'ah is defined as a participatory form of financing between the farmer and financier with the agreement to share the output in accordance with pre-determined ratio. Due to the participatory nature of muzara'ah, the provider of capital acts as a partner and possesses every right to closely supervise the activities of the entity being financed, a practice that is different from the conventional loan. The participation of financier in the management decision will minimize losses and moral hazard that are part of the causes of the failure of the various microfinance and government loan policies. Many studies have found Muzara'ah financing as the most compatible mode of financing agricultural production both in the short and long run. According to Kahf and Fahim, (1992), this mode of financing will assist the producer to minimize the cost of capital by not being burdened with a risk that is beyond his ability. This signifies that whatever losses incurred during the cultivation period as a result of natural hazard and the effect of weather will be shared between both parties. Assuming the financier is Islamic bank, this mode of finance will boost the activities of such Islamic financial institution through profit and loss sharing partnership. The provision of funds for firms to enter into Muzara'ah contract with farmers will help incorporate the principle of partnership into their operations.

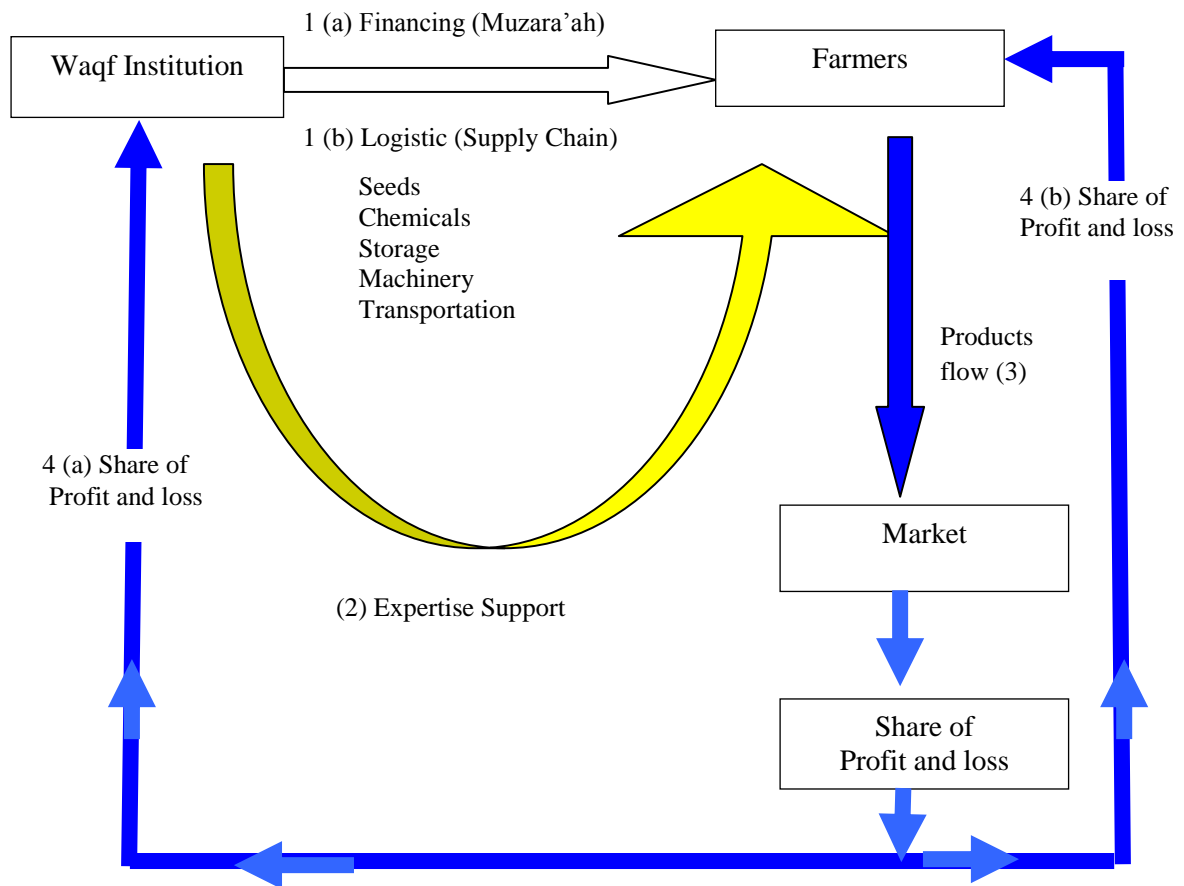
Sudan is among the countries that use Muzara'ah financing which they also refer to as Musharakah to finance smallholders' farmers. According to Mohsin (2005), the Muzara'ah concept is applied through the Islamic banks in Sudan. They do it through Musharakah and Mudarabah Islamic principles. In the case of Musharakah, it is done in two forms. The first form of Musharakah is when banks provide small farmers with fixed assets such as tractors, ploughs, water pump and inputs (e.g. seeds, fertilizers and 10 pesticides). Farmers in turn contribute their land, labour, part of the running expenses and management, and the profit or loss are shared according to equity share after the deduction of the cost for management services rendered by the farmers.

The second form of Musharakah is when banks provide land and machinery to farmers to cultivate, and the outputs are shared in pre-arranged proportions. The Mudarabah form of Muzara'ah occur when banks act as principals by providing all capital resources while the farmers contributed only in the form of expertise and the profits are shared according to pre-agreed term. Based on the study done by Mohsin (2001), the Muzara'ah modes of financing were successful in Sudan and raised the contribution of the agricultural sector in Sudan from 4.4 million Sudanese Dinar in 1992 to 52.0 million Sudanese dinar in 1999.

Proposed Waqf-Muzara'ah-Supply Chain Model (WMSCM)

As the existing schemes of financing are unable to fulfil the financial need of farmers in Nigeria, hence there is a need to look for a more effective and efficient funding schemes to help them. The Waqf-Muzara'ah-Supply Chain Model (WMSCM) is proposed with the aim to be an alternative option of financing scheme for the farmers in Nigeria as shown in Figure 1.

Figure 1: Conceptual Framework of Waqf-Muzara'ah-Supply Chain Model (WMSCM)



Below are the detail explanations of the WMSCM above:

1. The Waqf institution provides financing facility (through Cash Waqf) for farmers via partnership contract
2. The Waqf institution also provides necessary inputs and logistic related to agriculture in addition to the provision of agricultural, managerial and marketing expertise, and macro and micro data [1(b), 2]. Meanwhile the farmers contribute in the form of labour (and or land).
3. After harvesting, the agriculture output is sent to the market with the logistic support from the Waqf institution.
4. The profit/loss from the sales will then be distributed between the two parties based on a predetermined profit and loss sharing ratios [4(a) and 4(b)].

Implication Of The Model

The significances of the Waqf-Muzara'ah-Supply Chain Model are three fold, namely:

a) **Benefits To And Impact On The Farmers**

The Waqf-Muzara'ah-Supply Chain Model brings benefit the farmers in many ways. Usually, access to agricultural credit has a strong positive relation with agricultural productivity (Phillip et al. 2008). But, smallholder farmers in Nigeria are eluded of this vital input due to the problems of collateral and high interest rate imposed by the relevant institutions. Agricultural loans are coming with short-term with fixed repayment period and the loans are structured in such a way that is not suitable for annual cropping or livestock production. With the Waqf-Muzara'ah-Supply Chain Model, the farmers will benefit from the availability of interest-free finance with no condition for collateral. This will help greatly in eliminating the burden of interest rate since, under this model, the farmers will become partners with the financial institution based on the profit and losses sharing scheme. The second benefit is that, it helps to eliminate the exploitation of the middlemen. This is because, it is very common for the farmers in the rural areas to go to the middlemen or to resort to their well to do neighbours to supply their surplus grains, which they do at a very low price. These middlemen capitalize on the weakness of the farmers who are in dire need of money, and hence they buy the products from the farmers at exploitative price. The third benefit is that, the model helps in increasing yield and quality of the produce.

b) **Benefits To And Impact On The Financial Institutions**

The Waqf-Muzara'ah-Supply Chain Model will become as an interest based investment. It is an obvious fact that the modern conventional banks depend on interest rate for their pricing and returns. Though the banks see themselves benefiting by creating more money through interest, they also face the risk of their money being destroyed through loans defaults. The 2008 global financial crisis is a lesson for the banks to move away from interest and embrace the profit and loss sharing investments. Agriculture financing based on the Waqf-Muzara'ah-Supply Chain Model is a viable investment means for the financial institution, since agriculture constitutes the largest source of employment for the majority of Nigerians. Other auxiliary benefits accrue in the form of eliminating the risk of moral hazard associated with loan distribution.

c) **Benefits To And Impact On The Economy**

The majority of the farmers that depend on subsistence farming will have the opportunity to increase the quality and yield of their products when The Waqf-Muzara'ah-Supply Chain Model is adopted. As a result, their income will rise and the rate of poverty will be reduced drastically. Moreover, by adopting The Waqf-Muzara'ah-Supply Chain Model, the financial institutions will help in reducing inflation since less money will be created into the economy. Economist and finance scholars generally agree that inflation is inevitable in a financial system that is based on interest. Last but not least, the implementation of The Waqf-Muzara'ah-Supply Chain Model will reduce dependence on food import, thereby, improving food security and self-sufficiency. In addition, since Waqf is one of the redistribution schemes in an Islamic economy system, it helps to increase wealth, consumption and investment that later can boost the economy. Furthermore, as this study proposed the use of Cash Waqf as the main resource, it helps to achieve efficiency of allocation of resources in the economy.

Conclusion and Recommendation

This study has investigated the problems facing the agricultural sector in Nigeria. The majority of the past studies identified financial problems as the main constraint due to scarcity of funds for the farmers to embark into modern agricultural system. In addition to finance, logistic related problems and inappropriate government policies have also become the constraints to the farmers.

The study also examined the various approaches adopted by both government and private organizations towards solving those problems. According to the finding of the majority of the researchers, none of the methods has been proved to be effective. Apart from the scarcity of funds associated with those models, farmers are subject to exploitation through high interest rate and could not benefit from those advantages associated with partnership system of business.

Therefore, there is a crucial need for an alternative model of financing that should be based on interest-free, collateral-free. In addition, this model should also be able to improve the logistic aspect of agricultural activities. The Waqf-Muzara'ah-Supply Chain Model (WMSCM) proposed integrates all these identified aspects. Under this model, Waqf fund will be used for providing financial facility of the farmers. The relationship between farmers and financial institutions is based on partnership where profit and loss will be shared by both parties. This will enhance commitment by and cooperation among both parties to ensure the success of the business. Furthermore, the issues of collateral and high interest rate that constrain the financial ability of the farmers and their agricultural output are inherently solved by the model.

Finally, this paper recommends that this model to be adopted by both the public and private sectors in Nigeria. The implementation of this model will require a collaborative effort to integrate its three components, namely Waqf, farmer and supply chain mechanism. The farmers and the relevant staff involved need to be trained to acquire the necessary skills and the knowledge of supply chain management.

References

- Adetiloye.K.A., 2012. Agricultural financing in Nigeria: An assessment of agricultural credit guarantee scheme fund (ACGSF) for food security in Nigeria (1978 – 2006). *Journal of Economics*, Vol. 3(1), pp. 39-48.
- Cizakca, M., 2004. Cash Waqf as Alternative to NBFIs Bank. Paper Presented In The International Seminar On Nonbank Financial Institutions: Islamic Alternatives, March 1-3, Kuala Lumpur, 2004
- Daramola B., 2005. Government policies and competitiveness of Nigerian rice economy. Paper presented at the workshop on rice policy and food security in Sub-Saharan Africa, Republic of Benin.
- Eyo. E. O., 2008. Macroeconomic environment and agricultural sector growth in Nigeria. *World Journal of Agricultural Science*. Vol. 4(6), pp. 781 – 786. IDOSI Publications, ISSN 1817-3047.
- Ejike.O.L., 2012. Financing agriculture in Nigeria: Issues and Solutions. *Journal of Research in Pure and Applied Sciences*. Vol. 1(1),pp. 36-40.
- FAOSTAT., 2006. Prospect for food, nutrition, agriculture and major commodity groups. Interim report on world agriculture towards 2030/2050, Rome.
- Josephine.N.O., 2011. Micro Finance in Nigeria: Problem and Prospects. *African Research Review*. Vol.5(2). Serial No.19, 2011.
- Kahf M. and Fahim M. K., 1992. ‘Short-term financing of commodity production in Islamic perspective’. A paper presented at the seventh meeting of the experts of Islamic banking, Kuala Lumpur.
- Lee, H. and Billington, ‘The evolution of supply-chain management models ad practice at Hewlett – Packard’., 1995. *Interfaces*, Vol. 25, (No. 5)
- Mogues, Tewodaj & Ayele, Gezahegn & Paulos, Zelekawork., 2008. "The bang for the birr: Public expenditures and rural welfare in Ethiopia,"Research reports 160, International Food Policy Research Institute (IFPRI).
- Mohsin M., I., 2005. ‘The practice of Islamic banking system in Sudan’. *Journal of Economic Cooperation*. Vol. 26(4), pp. 27-50
- Mohsin M.I.A., 2008. *Cash Waqf A New Financial Product Model Aspects Of Shariah Principles On ITS Commercialization*. This paper is presented at Islamic Banking, Accounting and Finance Conference (iBAF 2008), Faculty of Economics and Muamalat, Universiti Sains Islam Malaysia, 28-29 July 2008 at The Legend Hotel, Kuala Lumpur 2008
- Olaitan, M.A., 2006. Finance for Small and Medium Enterprises: Nigeria’s Agricultural Credit Guarantee Scheme Fund. *Journal of International Farm Management* ,Vol. 3(2), pp.1-9.

- Ogunlaja B.O., 2008, Towards Effective Credit Surveyance to Small Holder Farmers: *The Nigerian Microfinance Newsletter*: July-December, 2008.
- Okuande E. O., 2007. Accessibility of agricultural credit and inputs to women farmers of Isoya rural development project. *Research Journal of Agriculture and Biological Sciences*, Vol.3(3), pp. 138 - 142.INSInetPublication.
- Philip D., Nkoya E., Pender J. and Ayoola O., 2008. 'Constraints to increasing agricultural productivity in Nigeria'
- Russell and Taylor., 2009. Operations management: Along the supply chain. Sixth edition. Asia: John Wiley
- Steel.W.F, Aryeetey.E, Hettige.H, Nissanke.M.K., 1997. Informal financial markets under liberatizon in four African countries. *World Development*, Vol. 25(5), pp.817-830.
- Toraman C., B. Tuncsiper and S. Yilmaz, Cash Waqf in the Ottomans as Philanthropic Foundations and their Accounting Practices., 2004, Anadolu University of Turkey.
- Udry.C., 1993. Credit market in northern Nigeria: Credit as insurance in a rural economy. *Economics of Rural Organization: Theory, Practice and Policy*. New York: Oxford University Press for the World Bank. pp. 87-104.
- William D. P. and John., 2007. 'The supply chain–finance link'. *The Supply Chain Management Review*.