

## Roles of Farmers' Cooperatives in Agricultural Development In Sabuwa Local Government Area of Katsina State, Nigeria

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### Abstract

The cooperative movements among farmers are viewed to be instrumental to Agricultural transformation and boosting productivity in the sector. For some decades, cooperatives have been playing remarkable roles towards the growth and development of the national economy. The study aimed at assessing the farmers' cooperative roles in Agricultural development in Sabuwa local government area Katsina State, Nigeria. The primary data was collected with the aid of structured questionnaire as a major research instrument for the study. A purposive sampling technique was employed in the selection of 60 samples among registered farmers' cooperative members in the study area. Data was analysed by measures of central tendencies such as frequencies, mean, percentages and multiple regression techniques. The study revealed that income generation ( $r = 759$ ), duration of cooperative experience ( $r = 681$ ), type of agricultural activities ( $r = 715$ ) and quality of leadership ( $r = .874$ ) were found to be significantly correlated with the roles of the farmers' cooperatives in agricultural development at .05 alpha value while membership enrolment in terms of population size ( $r = 423$ ) was found to have a weak correlation. Based on the findings, it was recommended among other things that agricultural policy makers and economic planners should take into cognizance the morale boosters for the cooperative organizations such as lowering interest rates on granting credit facilities, empowering the farmers' cooperatives to perform through legislative control and adopting cooperatives as an effective strategy towards socio-economic transformation of the less-privileged and disadvantaged lagging areas and by so doing, it will assist in fostering regional balance in our developmental efforts.

**Keywords:** Agriculture Cooperative Movement Farming Development

### 1. Introduction

The history and importance of agricultural cooperative organizations in Nigeria is a long-standing one. Ihimodu (1998) traced their origin to British administration in 1935 with the enactment of the cooperative society law. Moreover, before the legislative control there had been indigenous attempts to form associations such as cocoa farmers' society and kola-nut planters union. These associations were formed in major cocoa producing areas and they were independent of government support (Ihimodu, 1998). The collapse of traditional mode of cooperatives was attributed to incapacitation of members to bear risk, expectation of high returns on investment and poor management. Cooperative organizations have undergone changes over the years ranging from traditional, informal to modern and formal institutions (Harris and Stefanson, 2005). The cardinal objective of introducing agricultural cooperative was to increase crop production and credit facilities to cultivators. They have been deeply involved in activities that have impacted on the livelihood of members in particular and rural people in general. This opinion was shared by Omotosho (2007) that cooperatives often ploughed back resources in terms of dividend on share capital and distributed proportionally to members as patronage bonus. These voluntary social organizations are found in communities possessing common interests but differ in size and degree of interaction among members (Thompson, 2002). In these societies members have had the ability to influence ideas and actions of the government through a common bargaining power. Royer (2005) and Chambo (2009) had the belief in principle that agricultural marketing cooperatives were competing favourably with private individuals including multinational companies amidst of various challenges such as price fluctuations, legislative controls and low capital accumulation. In this regard, most community and agricultural development agencies have sought the support of these organizations as effective means of imparting new ideas, techniques, harnessing their resources towards improving agricultural production and this constitutes the significance of farmers' cooperative organizations towards the development of agricultural sector. The country embarked on many agricultural development strategies such as input subsidization, marketing boards, and institutional reforms geared towards improvement of agricultural production. The failure of many agricultural development programmes in Nigeria could be traced to poor organizational structure and implementation at the grassroots level (Omotosho, 2007). The rural poor farmers are isolated, under-educated and lack the means to win greater access to means of production such as capital, labour and this engendered pulling together financial resources towards a common goal. Donald (2002) remarked that some project targeted ranged from medium to large-scale

producers and supporting them with technology, credit and extension services hoping that improvements will gradually extend to the more backward and disadvantaged rural area but unfortunately none of such projects brought about increases in yield of crops for participants and non-participants. Indeed, a good number of factors are responsible for this such as constantly changing technology through education and research, availability of equipment and supplies including the ability of farmers to obtain them on time, poor transportation network, among others (Adefila, 2011). It is the gap arising from the poor performance of government and other institutions that led to the formation of farmers' organizations as means of achieving goals of common interests (Odigbo, 1998). These agricultural cooperative societies do engage in the production, processing, marketing and distribution of agricultural products. An important form of agricultural cooperative in Nigeria is the group farming societies. Members of this society engage in the production of a variety of crops while they also arrange for the marketing of the products. Some other agricultural cooperatives are devoted to the cultivation of single crops and such societies are named after the crops such as Tobacco Growers Cooperatives (TGC), Cooperative Credit and Marketing Societies (CCMS). In addition, there are Cooperative Production and Marketing Societies (CPMS) in marketing crops such as cocoa, groundnuts and palm produces. Moreover, there are modern agricultural processing cooperatives for crops such as oil seeds and groundnuts (Ihimodu, 1998; 2007). Farmers' cooperatives have played far reaching roles in agricultural development. Certain factors influence the role performance of these organizations. This study therefore evaluates some of the factors influencing role performance of these farmers' cooperative organizations in agricultural development in the study area.

## 2. The Study Area

It is located between Latitude 11° 05' north of the Equator and Longitude 6° 50' east of the Green Wich Meridian. The study area is bounded in the north by Dandume and Faskari local government areas, in the north-west by Zamfara State and in the south by Kaduna State. The study area has been carefully selected for this study following the memory lane, Katsina State was part of the first set of agricultural development project (ADP) being established in the country and possesses a good number of agricultural cooperatives.

It is part of the tropical intercontinental north where the annual rainfall ranges between 50 cm to 100 cm. It enjoys some four months of rainfall and has some eight months of aridity. Also, the relative humidity is always low about 40 percent in January and rise to about 60 percent in July. There are two principal winds that govern the climate of the area namely, the Tropical Maritime air mass (Tm) and the Continental air mass (Tc) (Ayoade, 2004). While the former air mass brings rain to the entire study area during the wet season, the latter air mass brings aridity, since it originates from the desert area it is always cold, dry and dusty locally known as harmattan wind (Udo, 2001). Soils in this area are formed under condition of aridity and deposition of sand by the wind. The soils are fine sandy loam, relatively easy to cultivate with little leaching hence, it is generally good for cultivation of groundnuts, grains and cotton (Ayoade, 2004).

Both vegetation and soils are somehow related since they are affected by the climate, geology and relief of the area. The soil determines to a large extent the type of plants that grow and in like manner, the soil helps to enrich the plant cover. The study area shares some characteristics of a Sudan type of savanna vegetation. The trees are scattered with poor grassland. Some of the tree species include shear-butter tree, locust bean and date palms.

Regarding peoples, the most predominant tribes are the Fulanis and Hausas. However, there are Yorubas, Igbos and other tribes occupying some pocket areas. The Fulanis are noted for their animal husbandry and do engage in seasonal migration with their cattle, goats, sheep and donkey. The Hausas also engage in animal rearing but mostly occupied with sedentary agriculture. The major crops grown by the farmers include maize, guinea-corn, millet, soya-beans and groundnuts at both commercial and subsistence levels. In addition, horticulture is practised mostly along the main streams and rivers where vegetables like okro, tomatoes, onion, sugar-cane, lettuce and spinach are cultivated.

## 3. Recent Studies in Cooperatives

Small-holder farmers remain the bedrock of agricultural production especially in the developing countries including Nigeria. Mohammed (2004) remarked that farmers are burdened with high prices of farm inputs, inefficiency of farming techniques, inadequate production infrastructure, poor market and heavy constraints in obtaining credits facilities. The ugly situation is further compounded by the general economic downturn and government drives to remove all subsidies on farm inputs such as chemical fertilizers, and agro-chemicals. Of recent, the co-operative option comes into focus as a viable way to effectively mobilize farmers to form groups and pool resources so as to become more effective in agricultural production (Agenyour, 2014)

In addition to the values and principles of cooperatives, studies have been conducted on wide varieties of issues relating to the importance of co-operative societies. Veerakumaran (2005) explained that cooperatives serve as fundamental tool for achieving food security at household level. Co-operatives are the best institutional intervention for attaining food security in any country. The developed nations like United States of America, Canada, Australia, almost all European countries and Socialist country like China have attained food self-sufficiency through cooperatives (Chambo, 2009).

Gertler (2001) adopted probit model to explain co-operatives as a practical tool for collaboration, collective action and they build and reinforce community, stabilize regional economies and provide a favourable climate for further investment. Co-operatives is capable of reducing spatial inequality and promote equitable sharing of the cost and benefits of development. It can promote economic democracy and the empowerment of marginalized groups- a hallmark of sustainable development and a precondition for shared responsibility (Agenyour, 2014)

Ojiako and Ogbukwa (2012) examined loan repayment capacity of small – holder cooperative farmers in Yewa North area of Ogun State, Nigeria using correlation and regression techniques. The study showed that farm credits played vital roles in the socio-economic transformation of the rural economies. However, loan acquisition and repayment were characterized by numerous challenges including high levels of default among beneficiaries. The study concludes that promoting small-holder cooperative farmers' loan repayment capacity would require conscious use of policies directed at increasing loan size and farmers' farm holdings or reducing household size.

Similarly, Ofuoku and Urang (2009) assessed the effect of cohesion of farmer co-operatives societies on loan repayment among members in Delta State, Nigeria using Spearman's rank order correlation analysis. The study observed that there was almost perfect positive relationship between rates of loan repayment perception and cohesion. Consequently, they recommended that extension agents should take advantage of the effect of cohesion on loan repayment to promote cohesion in upcoming co-operative societies. In evaluating agricultural credit utilization by cooperative farmers in Benue State, Nigeria, Okwoche et al (2001) observed a significant difference between the agricultural output and income of farmers' before and after the utilization of loan acquired. The t-test analysis shows that farmers joined the farmer co-operatives societies mainly to access credit. The study recommended that the farmers should be adequately motivated with needed credit facilities as this will further enhance agricultural production. However, little attention is drawn to the performance of farmers' co-operatives in agricultural development particularly in Sabuwa local government area of Katsina State and this constitutes the gap in knowledge that the present study attempts to address..

Singh and Ashraf (2012) examined spatial variation in level of agricultural development in Boulandshahr district of Western Uttar Pradesh, India. The study adopted standardized scores (Z-Score) to measure level of disparities in agricultural development in the study area. The result showed that Sikandrabad (1.33), Arniya (1.31), Danpur (1.15), Khurja (1.02) and Jahangirabad (0.80) fell within the high category. The medium group includes Unchagaon (0.20), Anupshahr (0.16), Lakhaothi (-1.79 and Agauta (-0.98). The low category includes Siyana (-0.22), Shikarpur (-0.26) and Bulandshahr (-0.31). The study recommended re-structuring of agriculture in line with certain socio-economic and political factors as well as national goal so as to make agriculture more dynamic.

#### **4. Methodology**

A reconnaissance survey was carried out in order to familiarize oneself with the activities of the cooperative societies and to make spot assessment of the unions. In addition, a focused group discussion (FGD) was conducted so as to collect relevant data about the operations of the cooperative organizations. In the study area there were 60 registered farmers' cooperatives. The list of farmers' cooperative organizations was compiled from the related ministries in the study area. Questionnaire was a major research instrument for the study which was assessed for content validity by a team of experts in Agricultural economics and cooperative studies. The items of the instrument had confidence coefficient 0.95 of reliability. The questionnaire was administered among all the registered farmers' cooperatives represented by their respective Chairmen and Secretaries thereby constituting the sample size for the study. The secondary sources of data included those collected from the related ministries, government gazettes, agencies, parastatals and published journals. The study employed descriptive statistical techniques involving calculation of the mean, percentages, frequencies and inferential statistics such as multiple regressions. The multiple regression model is stated below:

Y is the dependent variable while X is the independent variable

$$Y = f(X_i, X_{ii}, X_{iii}, X_{iv}, X_v, \dots, e)$$

Where;

Y = Roles of the farmers' cooperatives in Agricultural development.

X = Attributes of the farmers' cooperatives

X<sub>i</sub> = Income of the farmers in (Naira)

X<sub>ii</sub> = Experience in farming in terms of years

X<sub>iii</sub> = Number of people enrolled (population size)

X<sub>iv</sub> = Type of agricultural activities - crop = 1, animal husbandry = 2,

Fisheries = 3 and agro – allied enterprises = 4.

X<sub>v</sub> = Leadership (good leadership = 1; poor leadership = 0).

e = error term

### *Null Hypothesis*

There is no significant relationship between farmers' cooperative roles in agricultural development and their attributes – income, experience, membership size, type of agricultural activity and quality of leadership.

## **5. Data Analysis and Discussion of Results**

### *5.1 Socio-economic Characteristics of the Farmers' Cooperatives*

A cursory glance at Table 1, it revealed majority (58.4%) of the farmers' cooperatives collected funds from credit facilities made available by their respective organizations. In addition, (30.0%) and (8.3%) of the cooperative societies got their income from levies and dues respectively. Indeed, only (3.3%) of the income came from launching programmes. This implies that the farmers' cooperatives had little or no access to external financial resources in executing agricultural development activities. Merrett and Walzer (2001) remarked that funding of the cooperatives often came from contributions made by members and rarely did they receive donations from external sources. It is obvious that if financial resources were to be increased, it would enhance role performance of the cooperatives in agricultural development. Credit is one of the basic pre-requisites to increasing agricultural production. Rotan (2000) had earlier remarked that cooperatives deserved higher income in order to boost agricultural production. The type of agricultural activities being practiced by the farmers' cooperatives showed that majority (41.7%) of the members engaged in cultivation of crops, some (33.3%) of them engaged in animal husbandry. In addition some (20.0%) and (5.0%) of them practiced fisheries and agro-allied enterprises respectively. This is an indication that cultivation of crop and animal husbandry dominate other agricultural activities in the study area. USDA (2001, 2005) had reported that livestock production has been the major source of income and food to most people in the world. FOS (2006) reported that livestock contributed about 6.6% and poultry accounted for about 6% of gross domestic products (GDP) in Nigeria.

The annual income of the farmers' cooperatives was presented in Table 2. The level of income was based on the assessment made by the executives from each cooperative organization. It showed that some (46.6%) of the farmers' cooperative organizations had annual income level of N81, 000 - 120,000, while (25.0%) had income of about N10,000 – N40,000. In addition, (20.0) and (8.3%) had annual incomes of N41, 000 – N80, 000 00 and N121, 000 – 160,000 and above respectively. The incomes of the farmers' cooperative organizations range from N10, 000 to N160, 000 per annum. This is an indication that income earnings by the farmers' cooperatives are still meager for meaningful agricultural development.

The years of experience of the farmers' cooperatives in agriculture were investigated and it revealed variations in terms of length of experience. For instance, some (46.7%) of them have obtained 0 - 10 years experience in farming while (30.0) and (20.0%) of them acquired 11 - 20 years and 21 – 30 years experience in farming respectively. In addition, some (13.3%) of the cooperative organizations attained 31 - 40 years experience in cooperative farming. Indeed, experience goes along with skill acquisition which is fundamental to efficiency and effectiveness in any job operation. The result implies that most cooperative societies have acquired reasonable years of experience in cooperative farming which can have spread effects on agricultural development. This result apparently corroborated with (Torgerson, 1990; Trechter, 1996) that farming experience significantly correlated with adoption of improved soil conservation practices. It is essentially an indication that farmers with more experience would likely adopt innovative ideas and techniques that would enhance increase in agricultural productivity.



The size of membership of the farmers' cooperatives was presented in Table 2. It showed that (46.6%) had large enrolment size of 101 - 200 while (36.7%) and (11.7% of them had membership size of 51 - 100 persons, 0 - 50 persons. This enrolment per cooperative organization indicated an optimal population capable of embarking on agricultural activities geared towards increasing productions. The age of the cooperative organizations revealed that about (41.7%) of the farmers' cooperatives that involved in agricultural development fell within the age of 0 - 10 years. This period showed that the cooperatives were established not quite long period of time. In addition, (28.3%) and (16.7%) of them have existed for 11 - 20 years and 21 - 30 years respectively. One could remark that the proliferation of farmers' cooperative organizations was largely attributed to the recent policy of the federal government on fadama project towards boosting food security by the year 2020.

## 6. Roles of Farmers' Cooperatives

The responses of the farmers' cooperatives to the expected roles towards agricultural development in the study area were presented in Table 2. The responses were ranked according to degree of importance. Indeed, a topmost priority was given to granting of credit facilities to members 15 (25.0%) and then followed by enlightening and educating members 12 (20.0%). The third ranking was for introducing new ideas and techniques 10 (16.7%) towards improving agricultural productivity. The fourth in the rank concerned offering guidance and counseling 9 (15.0%) services to members. The fifth rank was to create a strong bargaining power 7 (11.7%) for agricultural products. This role is viewed to be instrumental to changing government policies that affect cooperative farmers. This role is followed by subsidizing agricultural inputs 5 (8.3%) to members. The farmers' cooperatives were noted for buying the agricultural inputs in bulk from the producers or the wholesalers and retail the items to members in subsidized rates. The seventh role was to maintain peace and unity 2 (3.3%) within the society. Of considerable importance was organization of exhibitions, workshops, seminars and film shows to showcase the cooperative products to the public. But to one's surprise this is not the case with the farmers' cooperatives in the study area. There is no gainsaying that farmers' cooperative organizations are indispensable to agricultural development in our rural communities

The reason is that they have been involved either directly or indirectly in agricultural activities. For instance, Hogeland (2002) had remarked that provision of credit facilities to farmers' cooperatives was geared to helping them increase their production and obtain higher standard of living. In addition, Merrett and Walzer (2001) rightly observed that farmers' cooperative organizations also assisted in spreading new ideas, innovations and incentives to allow majority of the people to be positively involved in the development of agriculture.

## 7. Regression Analysis Results

The relationship between the roles of farmers' cooperatives and the stated variables namely – income generation, experience in farming, size of membership, type of agricultural activity and quality of leadership was examined in this study. Generally, the variables were found to be significantly correlated with roles in agricultural development hence, the null hypothesis was rejected at .05 significant level

The regression analysis revealed that level of income generation ( $r = 759$ ) was significantly correlated with the roles of farmers' cooperatives. The positive relationship implies that the richer the farmers' cooperatives, the higher the level of their involvement in agricultural development activities. Increment in income is capable of increasing agricultural production (all things being equal). The period of cooperative experience had a coefficient ( $r = 681$ ), which was equally correlated to the roles performed by farmers' cooperatives. This implies that the more the farming experiences, the more the roles cooperatives are likely to perform. This is equally in agreement with the relationship between age of establishment of the cooperatives and roles. The membership enrolment with coefficient ( $r = 423$ ) constitutes a weak correlation with performance of farmers' cooperatives. This implies that the cooperative societies with large number of membership invariably would have more roles to perform and thus having multiplier effects towards agricultural development. The coefficient of the types of agricultural activity was ( $r = 715$ ). This was significantly correlated to the role of farmers' cooperatives. This result corroborated with the findings (Bhuyan and Leistriz, 2000) that there was a positive relationship between income, experience in agriculture, agricultural activities and membership size with the adoption of soil conservation techniques. Moreover, quality of leadership was found to be significant at .05 alpha value with a coefficient ( $r = 874$ ) that was correlated with the roles.. This means that quality of leadership determines the level of involvement in agricultural development. Merrett and Walzer (2001) had remarked that leadership involves close monitoring, organizing, coordinating members in order to attain organizational goals. Leadership is essentially human skill that binds a group together geared towards organizational success.

## 8. Recommendations

It is obvious that farmers' cooperative societies have limited financial resources to execute their onerous agricultural activities. This could generate agricultural policy that favours the growth of agricultural cooperatives by putting in place financial institutions that could grant credit facilities to the farmers at low interest rates. Ortmann and King (2007) remarked that increased inaccessibility to credit facilities had contributed immensely to the agricultural development in the country. Indeed, the establishment of micro-finance banks and agricultural banks has genuine interest in granting loans to prospective borrowers but the cooperatives are still finding it difficult to access the loans due to strings and conditions attached to it. It is recommended that interest rates on loans should be reduced to the minimum.

Leadership is paramount to the success of any organization and this explains the failure of many cooperatives since they lack proper coordination, administrative skills and managerial acumen. Government at all levels should be interested in the formulation, administration and accountability through the related agencies such as Ministry of Commerce and Industry by supervising these farmers' cooperatives with a view to ensuring stability and continuity of the organizations. Fulton and Gray (2006) observed that there should be strong alliance among cooperatives especially in the area of marketing agricultural products. The ministries and agencies can organize and sponsor seminars, workshops, and conferences for the farmers' cooperatives with a view to exposing them to new techniques and ideas on cooperative philosophy.

In this regard, all cooperatives in whatever form are seriously viewed as an effective strategy in the process of rural socio-economic transformation. It is capable of reducing regional imbalance between the privileged and under-privileged areas. In this regard, all hands should be on deck to ensure their successful operations in the country. This laudable goal can only be achieved if it is backed with legislative controls. The law should empower the cooperatives to perform certain functions such as strengthening the bargaining power as effective agents of socio-economic rural transformation. The cooperatives need proper education and enlightenment which can be achieved through government involvement.

## 9. Conclusion

The study has revealed that farmers' cooperative societies are variously involved in agricultural development. Moreover, certain factors are influencing their role performance which includes annual income, experience in farming, leadership training and membership size. In this regard, serious attempts ought to be made to address these issues at stake that are serving as impediments to the growth and development of the farmers' cooperatives. The appeal for the promotion of cooperatives at the grassroots and community levels should be seen as an instrumental strategy towards sustainable rural development now that government cannot be depended upon to meet individual numerous needs. Meijerink (2007) emphasized the important role of agriculture in sustainable development by evolving appropriate strategy and policy. The attitudes of government and the generality of the people must be changed positively towards cooperative development since it will be too difficult to achieve a meaningful balanced development without involving and stimulating the under-utilized rural resources which these cooperatives are trying to pool together to develop themselves. The government should create enabling environment for holding and managing the means for production in the process of developing under-privileged and disadvantaged areas.

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Table 1: Socio-economic traits of the farmers' cooperatives

Variable	Category	Freq.	%
Sources of fund	Credit facilities from the cooperatives	35	58.4
	Loan from financial institutions	5	8.3
	Levies and dues from members	18	30.0
	Launching of fund	2	3.3
Type of Agric. Activity	Raising of crops	25	41.7
	Animal husbandry	20	33.3
	Fisheries	12	20.0
	Agro-allied enterprises	3	5.0
Level of income (p.a)	10,000 – 40,000	15	25.0
	41,000 – 80,000	12	20.0
	81,000 – 120,000	28	46.7
	121,000 – 160,000 +	5	8.3
Farming experience (Yrs)	0 – 10	22	36.7
	11 – 20	18	30.0
	21 – 30	12	20.0
	31 – 40+	8	13.3
Enrolment (size)	0 – 50	7	11.7
	51 – 100	22	36.7
	101 – 200	28	46.6
	201 – 300	3	5.0
Age of establishment	0 – 10	25	41.7
	11 – 20	17	28.3
	21 – 30	10	16.7
	31 and above	8	13.3

Source: Authors, 2011

Table 2: Responses on Roles of Farmers' Cooperatives

Expected Roles	Freq.	%	Rank
Granting credit facilities to members	15	25	1
Enlightenment and educating members	12	20	2
Introducing new ideas and techniques of farming	10	16.7	3
Rendering guidance and counseling services	9	15.0	4
Create a strong beginning for marketing products	7	11.7	5
Subsidize agricultural inputs to members	5	8.3	6
Ensure unity and peace within the society	2	3.3	7
Organize agricultural exhibition, seminars and workshops	0	0	8

Source: Author, 2013



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