
**CONTRIBUTIONS OF COOPERATIVE SOCIETIES TO VEGETABLE PRODUCTION
AMONG WOMEN FARMERS IN IBARAPA NORTH LOCAL GOVERNMENT AREA
OF OYO STATE, NIGERIA**

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ABSTRACT: *The study examined the contribution of cooperative societies to vegetable production among women in Ibarapa North Local government area of Oyo State. A multistage sampling procedure was used to select 120 women vegetable farmers from 10 villages. Data was collected with questionnaires and interview guide, data were analysed using descriptive statistics such as frequency counts, mean and percentages for specific objectives, chi-square statistics was used to draw inferences. The study found out that the mean age of women was 43.7years, more than half (66.6%) took farming as major occupation and mean household size was 3.5 persons. Average years spent in vegetable production was 16.6years and majority (76.7%) of the women cultivates about 3 acres of land and has spent about 14 years in vegetable production. women cultivate different types of vegetable and also belong to more than one cooperative society. The women also submitted that cooperative societies have helped them in diverse ways among which are financial assistance (92.2%) marketing of vegetable (92.5%) and in the purchase of input. Major constraints faced by women in the operation of the cooperative societies they belong were untimely access to fund (55.8%), inability to refund loan by members (49.1%) and mismanagement of fund by executives (49%). Chi-square result show a significant relationship between education ($x=10.619$, $p=0.031$), years spent in vegetable production ($x=38.961$, $P=0.000$) and contribution of cooperatives to vegetable production. The study therefore recommends that women should be encouraged to take loans and be educated on how to refund loans with ease as this will help increase their production level and improve their well-being.*

KEYWORDS: Vegetable production, cooperative societies, women farmers.

INTRODUCTION

In developing countries, agriculture dominates the nation's economy. It has been established that about 60-70 percent of Nigeria population is engaged in agriculture (Nwajiuba, 2013) While 90 percent of Nigeria's total food production comes from small farms and 75 percent of the country population earn their living from these small farms (Oluwatayo *et al.*, 2008). In terms of employment, agriculture is by far the most important sector of Nigeria's economy engaging about 70% of the labor force (Adebayo & Olagunju, 2015). Nigeria's diverse climate from the tropical area of the coast and the arid zone of the North, make it possible to produce virtually all agricultural products that can grow in the tropical and semitropical areas of the world. The economic benefits of large scale agriculture are recognized and the government encourage the formation of

cooperative societies to encourage industrial and large scale agriculture which however is not common (Adejuwon, 2006).

The importance of cooperative as an effective channel of rural transformation is widely recognized in advanced and less developed countries. In Nigeria for instance, government objective since 1920, state the use of cooperative societies particularly for socio-economic development of rural areas (Ihimodu, 2007). Presently, cooperative is almost a universal form of organization found in most countries of the world and used by people in many ways for the supply of farming and fishing equipment, purchase of production equipment and other agricultural inputs.

Arthur (2016) defined cooperative as an association of persons and usually of limited means who voluntarily have come together to achieve a common economic end through formation of a democratically controlled business organization such persons as associates make equitable contribution to the capital required and accept fair share of benefits and risk of their undertaking. The ways in which cooperative idea can be beneficial to people in their every-day needs of life is to provide unlimited, necessary and desirable services to people, who engages in business with the motive of servicing instead of profit maximization, to operate on the basis of self help where the people involved look towards themselves as a group for the solutions to their problems. Cooperative helps to prevent exploitation by engaging members in agricultural processing and the group of people who comes together to do something that could be difficult for an individual to implement if he is alone.

Agricultural cooperative enable people to achieve effective production. They are legally established organization on the basis of specific set of principles. Cooperative activities is one of the best method by which peasant farmers can benefit in terms of dividends on share capital distributed proportionally to members as patronage bonus (Omotosho, 2007). Vegetables are important feature of Nigerian's diet. It is an important staple that is consumed on regular basis. It is a component of healthy diet and sufficient daily consumption could help prevent major diseases such as cardiovascular diseases and certain cancer. Reported the quantity of vegetable grown in Nigerian in 2010 is 11,830 thousand tones (FAO, 2010). In Nigeria, enormous qualifies of vegetables are produced and staggering figures are sometimes given as estimated annual production., for example figures like 3.8 million tonnes of onions, 6,illions tones of tomatoes, have been quoted as annual production levels of some vegetables which are really large in food crop (Erinle 1999). In spite of the enormous pot-entails of most of our local vegetables for industrial growth and development, very few large scale vegetables processing industries abound in Nigeria. Although the costs of input such as labor can be higher, the profits are higher and the income thus generated can be used for many different purposes in terms of eradication of hunger access to education and health care. According to the Federal Ministry of Agriculture and rural development, women account for 75% of the framing population in Nigeria. (Sahel, 2014).

Women are half world population (Mofeke *et al.*, 2003). They comprise one third of the world's working population, for this they earn one tenth of the world's income but they own only one percent of the world's property. However, Adekenya (1998) made an extensive research and posited that women did most things together even though there were division based on sex and age group, there is respect for each other and these individuals were treated equally.

Women constitute the bulk of cheap labor force and are largely responsible for subsistent agricultural production in the rural areas. They often labor from dawn till dusk on weeding, harvesting, and during storage of grain and food processing. They are responsible for fetching water, food, wood for fuel and feeding their families. Above all they are mothers and transmitters of community tradition (Bargalli, 2009). Identifying women as potential leaders, encouraging, supporting them through advanced training, mentoring and coaching them has been identified as a successful policy. Cooperatives allow women who might have been isolated or working as individual to come together. A major principal benefit of cooperative work is that, it gives women access to decent wages while still leaving time and freedom for other responsibilities that are important to them such as, caring for children and families. (Sahel, 2014).

Women are particularly effective in bringing out change to the Nation as a whole because of the strong influence they have in their daily activities. The inaccessibility of credit facilities to women farmers by most financial institutions like banks coupled with high interest on loan has always been a constrain on farmers. This has therefore resulted to farmers (especially women) coming together as groups to form cooperative society with a view of meeting their financial needs while also improving their standard of living. Therefore, the importance of women cooperative movement, which is widely accepted as the most rural oriented socio-economic development in the country today is affirmative.

Oyegbami & Lawal (2017) reported that women has contributed towards agricultural development, through investment in crop production, harvesting, processing, storage and marketing as well as running many self reliance cottage enterprise such as dying, knitting and livestock. They have been known to belong to cooperative societies, this study therefore seeks to examine the contributions of cooperative societies to vegetable production in Oyo State and specifically:

- i. describe the socio-economic characteristics of women in vegetable production in the study area.
- ii. identify the types of vegetables cultivated by women farmers
- iii. find out the type of cooperative societies in the study area
- iv. Identify contributions of agricultural cooperatives to vegetable production among women
- v. investigate the constraints encountered by women in the operation of the cooperative societies.

Hypothesis

This hypothesis of this study is stated in null form below:

H₀ : Selected socio-economic characteristics of women do not have any significant relationship with the contribution of cooperative societies on vegetable production

METHODOLOGY

Study Area

The study was carried out in Ibarapa North Local Government Area. of Oyo State, Nigeria. This local government area was created in 1996 from old Ife Loju Local Government. It has its headquarter in Ayete, other notable towns in the local government are Tapa and Igangan. Each of the towns has quite a number of villages. The major markets within the local government include Ajise, Obada, Alaagbaa, Atabi, Konko, Oja-Isale. Ibarapa North is a rural Local Government Area located in the Northern west of Oyo State Nigeria , about 134km from Ibadan the State capital. It has an area of 1,218km² and a population of 101,092 at the 2006 census, Ibarapa North has longitude of 7.6833° North and 3.1833° East. Majority of the inhabitants of Ibarapa North Local Government area are professionally farmers with little numbers of civil servants. Ibarapa North local government area is one of the Agricultural producing area in Oyo State; some of the products are yam, cassava, maize, vegetables like cucumber, carrot, efo soko and ewedu etc.pulation of the area to engaged in farming. 10 villages will be studied namely: Gbodiko, Gboko, Iki, Kajolashipa, Ajelanwa, Konko, Olokele, Owode, Igangan, Opomu.

Sampling procedure and sample size

Population of the study consist of all women involved in vegetable production. The study adopted a multistage sampling procedure to select women for the study. The first is a purposive selection of women in vegetable production, and the second stage is a randome selection of ten women from each village.

Data for the research was collected through the use of structured questionnaire and interview schedule. The questions were designed to elicit basic information on women's socio-economic characteristics, identify types of vegetables cultivated, find out types of cooperative societies, investigate the contributions of these cooperative societies and the constraints encountered by women in the operation of these societies.

Data collected were analysed using descriptive statistics such as frequency counts, percentages and mean to describe the variables in specific objectives of the study. Inferential statistics such as Chi-square was used to draw inferences between the variables in the hypothesis of the study.

RESULTS AND DISCUSSION

The results of specific objectives of the study were presented in tables and discussed accordingly

Table 1: Socio-economic characteristics of the respondent n = 120

Parameters	Frequency	Percentage	Mean
Age			
18-30	14	11.7	
31-40	23	19.2	
41-50	51	42.5	43.7 years
> 50	32	26.7	
Marital status			
Single	16	13.3	
Married	89	74.2	
Divorced	15	12.5	
Education			
Non-formal	20	16.7	
Primary	46	38.3	
Secondary	34	28.3	
Tertiary	20	16.7	
Major occupation			
Civil servant	16	13.3	
Driver	1	0.8	
Farming	80	66.6	
Processing	3	2.5	
Tailoring	1	0.8	
Trader	19	15.8	
Household size			
1-5	38	64.2	3.5 persons
6-10	34	18.3	
11-15	11	5.8	
Years in vegetable production			
≤10	1	0.8	
11-20	48	39.0	16.6 years
21-30	36	30.0	
31-40	23	19.2	
≥ 41	12	10.0	
Farm size (acres)			
≤ 3 acres	92	76.7	2.9 acres
4-7 acres	21	17.5	
8-11 acres	1	0.8	
≥12 acres	6	5.0	
Quarterly income (₦)			
≤ 50,000	92	76.7	47,822.03
50,000-60,000	25	20.8	
60,000-70,000	2	1.7	
70,000-80,000	1	0.8	
Years in cooperative society			
≤ 15	85	71.8	14 years
16-30	25	20.8	
31-45	6	5.0	
46-60	3	2.5	
≥61	1	0.8	

Socio-economic characteristics of women

Table 1 show the percentage distribution of women according to their socio-economic characteristics, results shows that majority (88.4%) of the women were between 31-50 years with mean age of 43.7 years. This implies that the women were in their middle age and are still active. Age can play an important role in the adoption or rejection of a practice or new technology. About three quarter (74.2%) of the women were married and 83.3% of the women had one form of education or another and 66.6% were majorly farmers with mean household size of 3.5. Also, majority (99.2%) of the women had spent more than 10 years in vegetable production with a mean of 16.6 years. This indicate that women will have the where withal, the knowledge, skill and techniques needed to increase vegetable production as this will also help to increase their income. The farm size was 2.9 acres which is an indication that women cultivate vegetables on a small scale and had a quarterly income of N47,822.03K. The women have spent 14 years in cooperative societies, this is a pointer to the fact that the benefits derived from these societies they belonged gave them the encouragement to stay and continue as a member of these societies.

Table 2: Distribution of women according to types of vegetable combinations cultivated. n = 120

Parameters	Frequency	Percentage
Ewedu (Corchorus)	11	9.2
Ewedu (Corchorus), Okro (Abelmoschus esculentus), Tete (African spinach)	13	10.8
Ewedu (Corchorus), Tete (African spinach) and Ugwu (Fluted pumpkin)	12	10.0
Ewedu (Corchorus), Okro (Abelmoschus esculentus)	5	4.2
Ewedu (Corchorus), Soko (Lagos spinach)	9	7.5
Ewedu (Corchorus), Soko (Lagos spinach) and Okro (Abelmoschus esculentus)	29	24.2
Ewedu (Corchorus), Soko (Lagos spinach) and Ugwu (Fluted pumpkin)	12	10.0
Ewedu (Corchorus), Ugwu (Fluted pumpkin)	2	1.7
Okro (Abelmoschus esculentus)	10	8.3
Okro (Abelmoschus esculentus) and Soko (Lagos spinach)	5	4.2
Okro (Abelmoschus esculentus) and Ewedu (Corchorus)	10	8.3
Tete (African spinach), Gbure (Water leaf)and Soko (Lagos spinach)	12	10.0
Ugwu (Fluted pumpkin)	13	10.8
Ugwu (Fluted pumpkin), Tete (African spinach)	15	12.5

(Multiple response given)

Types of vegetable cultivated by respondents

Table 2 shows the percentage distribution of respondents according to the type of vegetable cultivated. The table shows that 67.6% were into Ewedu (Corchorus), Gbure (Water leaf), Okro (*Abelmoschus esculentus*), Efo Tete (African spinach) and Ugwu (Fluted pumpkin) production. 0.8% were into Efo ebolo, (Yoruban bologi). 38.3% were into Soko (Lagos spinach) Gbure (Water leaf) cultivation and 1.7% cultivated Green vegetables. This shows that women cultivate different vegetables on their farms.

Table 3: Distribution of women by types of cooperative societies they belong. n = 120

SN	Type of cooperative society	Yes	Percentage	No	Percentage
1.	Producers cooperative	97	80.9	23	19.2
2.	Marketing cooperative	87	72.5	33	27.5
3.	Consumers cooperative	51	42.5	69	57.5
4.	Credit and thrift cooperative	96	80.0	24	20.0
5.	Multipurpose cooperative	37	30.8	83	69.1

(Multiple response given)

Types of cooperative societies in the study area

Table 3 show that five types of cooperative societies existed in the study area as at the time of conducting this survey. Majority of the women belonged to producer cooperatives (80.9%) and credit and thrift societies (80.0%), which implies that these two were the most popular types of cooperative societies in the study area. The other type of cooperative society was multipurpose cooperative (30.8%). One can explain this finding from the view point that since farmers are producers they would prefer to belong to or be a member of producer cooperatives where they can pool their resources together with other farmers with the aim of achieving their production objectives. Likewise they would belong to credit and thrift societies as it can afford them the opportunity to borrow money for their farming activities. One can conclude that the women belong to more than one cooperative society

Table 3: Distribution of women according to the contribution of cooperative societies to vegetable production. n = 120.

Parameters	Yes(%)	No(%)
Financial aid assistance	111(92.2)	9 (7.5)
Supply of planting material (seed)	81(68.3)	38(31.7)
Supply of Pesticides/ herbicides	80 (66.7)	40 (33.3)
Labour assistance	58 (48.3)	62 (51.7)
Training assistance	114 (95.0)	6 (5.0)
Marketing assistance	115 (92.5)	9 (7.5)
Farming equipment assistance	76 (6.2)	44 (36.7)

Percentages are in parentheses Source: Field survey, 2016.

Contributions of Cooperative Societies to Women Vegetable Production

Table 4 shows the various ways cooperative societies have contributed to vegetable production of women in the study area. Majority (92.5%) of the women indicated that cooperative societies have helped them to access finance, 68.3% have received planting material (seeds) and 66.7% of the women received pesticides/herbicide. Again 48.3% received assistance in the form of supply of labour. This shows that the cooperative societies have assisted members in the supply of labour and has reduced the high cost of hiring labour for harvesting.

Majority (95.0%) of the women have received training on different technologies in vegetable production like planting date, spacing, use of hybrid seeds, chemical application for different types of vegetables. On marketing assistance, 92.5% of the women received assistance on sales of vegetables and other farm produce. This may be due to their scale of production.

The result also show that 62.3% of the women indicated that their cooperative societies assisted them in the provision of farming equipment, also 94.2% of the women submitted that cooperative societies have helped them in gaining higher status. According to Kumar, Wankhede and Gena (2015), cooperatives are autonomous associations of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically controlled enterprise. Cooperatives are engaged in economic activities like in the disbursement of credit, distribution of agricultural inputs (seeds, fertilizer, agro-chemicals and the likes). Cooperatives have the inherent advantages in tackling the problems of poverty, food security and employment generation.

Table 5: Distribution of women by constraints encountered in the operation of the cooperative societies n = 120

SN	Constraints	Major constraint	Minor constraint	Not a constraint	Mean	Rank
1.	Untimely access to fund	65 (55.8)	34 (42.8)	21 (17.5)	2.38	1st
2.	Inability to refund loans by members	59 (49.1)	28 (23.3)	34 (42.8)	2.05	6th
3.	Mismanagement of fund by executive members	59 (49.0)	42 (35.0)	18 (15.0)	2.20	4th
4.	Uncommitted membership	21 (17.5)	51 (42.5)	48 (40.0)	2.33	2nd
5.	Lack of clear policy guideline on cooperative	57 (48.4)	41 (34.2)	20 (16.7)	2.18	5th
6.	Lack of effective leadership and qualified personnel	19 (15.8)	54 (45.0)	47 (39.2)	2.24	3rd
7.	Climate change on agricultural activities.	47 (38.1)	32 (26.7)	41 (34.2)	1.97	7th

Note: Figures in brackets are in percentage

Multiple response given

Constraints encountered by women in the operations of the cooperative societies

The result in Table 5 shows the different constraints encountered by women in the operations of the cooperative societies in the study area. The result shows that inability to refund loans by members at the stipulated time 49.1%, mismanagement of resources by the management 49.0%, lack of clear policy guideline on cooperative 48.4% among others were the common constraints encountered in the operations of the cooperative societies. The result also shows that 17.5% did not consider inability to access fund as constrains to the operations of the cooperative societies in the study area. When farmers encounter problems in the line of their duty, they can tamper the level of output that can be derived from their fields. Therefore, farmers should be assisted to overcome the identified problems above so that they can continue producing.

Table 6: Chi-square test between the socio-economic characteristics of respondents and contribution of cooperative societies n = 120

Variables	χ^2	Df	p – value	Remark
Age	4.029	3	0.258	Not significant
Marital status	4.956	3	0.175	Not significant
Education	10.619	4	0.031	Significant
Major occupation	7.512	7	0.378	Not significant
Minor occupation	0.929	2	0.628	Not significant
Years in vegetable production	38.961	4	0.000	Significant

Relationship between the socio-economic characteristics of respondents and contribution of cooperative societies to vegetable production

The result in Table 6 shows the Chi-square relationship between the socio-economic characteristics of respondents and contribution of cooperative societies to vegetable production. The result shows that level of education ($\chi^2= 10.619$, $p= 0.031$) and numbers of years in vegetable production ($\chi^2= 38.961$, $p= 0.000$) had significant relationships with contribution of cooperative societies to vegetable production. However, age, marital status and occupation did not have significant relationships with contribution of cooperative societies to vegetable production. This implies that educational status and experience in vegetable production are determinants of the contribution of cooperative societies' to the women vegetable farmers in the study area. The more experienced and educated a farmer is, the higher she would perceive the contribution of cooperative societies on her vegetable production.

CONCLUSION AND RECOMMENDATION

It is concluded that education and number of years spent in vegetable production by women were significant indicators to the contribution of cooperative societies to vegetable production in the study area. Most of the women involved in vegetable farming know the importance and benefits they derive from cooperative societies. They therefore need assistance on the repayment of loans obtained through the cooperative societies to carry out their vegetable production effectively. The study therefore recommends that women should be encouraged to take loans and be educated on how to refund these loans with ease as this will help increase their production level and improve their well being.

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