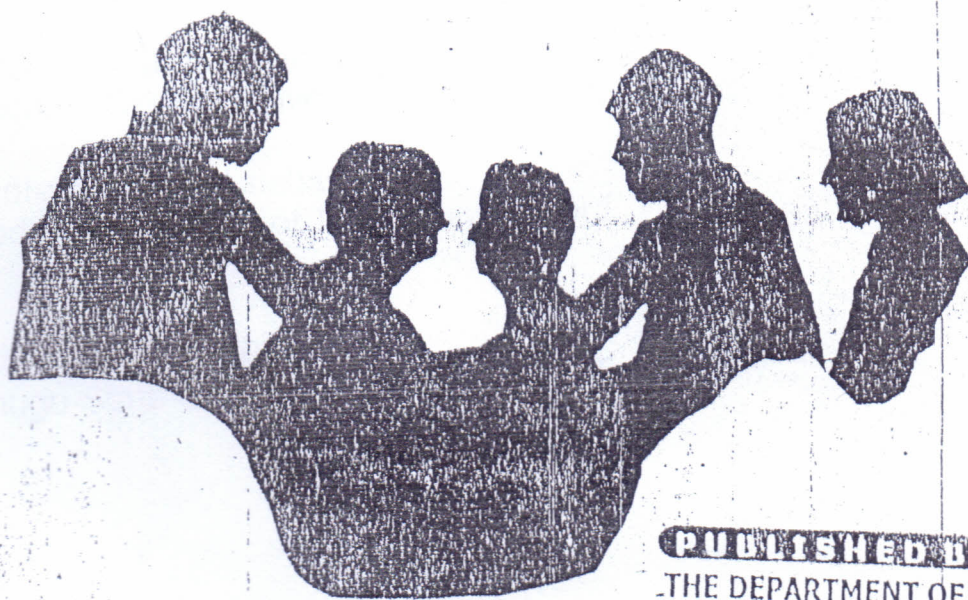




VOLUME 2 NO. 1 JANUARY, 2008

ISSN 0790-000X



PUBLISHED BY

THE DEPARTMENT OF COOPERATIVE
ECONOMICS AND MANAGEMENT,
FACULTY OF MANAGEMENT SCIENCES,
NNAMDI AZIKIWE UNIVERSITY, AWKA,
ANAMBRA STATE.
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DETERMINANTS OF FARMERS' MEMBERSHIP OF COOPERATIVE SOCIETIES IN OTUKPO LOCAL GOVERNMENT AREA OF BENUE STATE

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ABSTRACT

This study was carried out in Otukpo Local Government Area of Benue State, examine the socio-demographic factors affecting farmers' membership cooperatives. A multi-stage random sampling technique was employed to select sample size of 90 farmers as respondents. Structured questionnaires were used to collect relevant information from the sampled respondents. Data analysis was carried out using statistics such as frequency counts, percentages and logistic regression model. Results showed that the major types of cooperatives in the study area include the multipurpose, thrift and credit as well as agricultural input supplies cooperatives. Respondents also identified mass media, friends/relatives and community development associations as key sources of awareness about cooperatives. The logit model identified age, sex, level of education and annual income to be significant in explaining the probability of farmers' membership of cooperatives. The major constraints faced by members of the cooperatives include; inadequate savings, poor access to farm inputs and lack of government support. It is recommended that more efforts should be intensified by extension agents to further educate farmers on the importance of forming and joining cooperatives. Government and non-governmental organizations (NGOs) should assist farmer-cooperatives through the provision of soft loans and agricultural inputs at subsidized rates.

INTRODUCTION

Cooperative societies are voluntary associations of people who by pooling their physical and human resources together, aim at improving their living standard (L 1979). According to Okuneye and Igben (1981), farmers living in rural areas increase their income through increased agricultural productivity by forming themselves into cooperative groups. Modern rural cooperatives were formed in response to low prices for farm produce, high prices for farm inputs, wide marketing margins in favour of the farmer, high transportation costs and farmers' low bargaining power (Ijere, 1999). Agbo (1999), identified specific benefits that may accrue to farmers if they are members of agricultural cooperatives. These include:

- (i) A strong bargaining power for loans and other services.
- (ii) A favourable atmosphere for a more effective government aid scheme.
- (iii) Improved marketing opportunities for members.
- (iv) Provision of services to members at highly reduced costs.

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likelihood estimation method. The logit specification is suited to models where the dependent variable is dichotomous (Pindyck and Rubinfeld, 1977) which in this case are the members and non-members of cooperative societies. The logit model is given as

$$E(Y_i = 1/X_i) = \frac{1}{1 + e^{-(\beta + \beta X_i)}} = \frac{e^{(\beta + \beta X_i)}}{1 + e^{(\beta + \beta X_i)}}$$

Where Y_i is the dichotomous dependent variable, X_i represents the explanatory variable for the i th farmer and α and β are the unknown parameters to be estimated. The empirical form of the model is specified as

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + e_i$$

Where

Y_i = membership status of cooperative (1 if a member, 0 otherwise)

X_1 = Age (years)

X_2 = Sex (1 if a male and 0 otherwise)

X_3 = Education (years)

X_4 = Household size

X_5 = Annual income (Naira);

X_6 = Marital status (1 if married and 0 otherwise)

X_7 = Farm size (ha); X_8 = Farming Experience (years),

X_9 = Contact with extension agent (1 if contacted and 0 otherwise)

α = Constant

β_s = Regression Coefficients

e_i = Error term.

RESULTS AND DISCUSSION

Types of Cooperatives

Farmers' membership of the various types of cooperative is shown in Table 1. Preliminary analysis showed that, out of the 90 respondents used for the analysis, 67 were members of cooperatives while 23 were not. Most of the respondents belonged to more than one cooperative. In terms of population of membership, multipurpose cooperative ranked first (97.0%), followed by thrift and credit cooperative (67.5%), and agricultural input supply (53.7%). Other agricultural cooperatives like food production marketing and distribution (49.3%), livestock (38.8%) and fisheries / fish farmers (25.4%) recorded low membership. The high membership population of multipurpose cooperative suggests that farmers were yet to appreciate the specialized functions of cooperatives in the study area. In addition, the low level of membership of agricultural cooperative is an indication that agricultural cooperative is yet to be fully accepted. Thrift and credit cooperatives ranked second probably due to its role of releasing soft loans to her members without stringent conditions.

Sources of Information about Cooperatives

Table 2 presented the distribution of respondents based on their first sources of awareness about cooperatives. The three major sources were mass media (25.6%), friends / relations (22.1%), and community development meetings (20.9%). From the result, mass media ranked first and this confirms its wider acceptability and use as a popular source of information dissemination to farmers (Olowu and Igodan, 1989; Omenesa, 1991). The low ranking of extension agents (16.3%) suggests that they still

- (v) Mobilization of funds for farm business.
- (vi) Improved dissemination of extension services through the group approach.
- (vii) Self – reliance and motivation for members.
- (viii) Increased access to improved skills, exchange of ideas and educational opportunities through adult education and literacy programmes.
- (ix) Creation of avenues for members to practice democracy and assume collective responsibility.

According to Ijere (1992), most cooperatives fail because of low membership strength, poor fund mobilization and poor leadership. Since cooperatives mobilize their capital through contributions from members, it means that large membership enrollment especially among low income groups may be necessary to raise reasonable funds in order to meet members' needs. This forms the basis for this study, which examines the determinants of farmers' membership of cooperatives in Otukpo Local Government Area of Benue State.

Previous case studies by Huppi and Feder (1990), Nwoko (1991), Nnadi and Akwiwu (2002) and Idi *et al* (2006) all pointed out the various contributions of cooperatives to cultural development. However, none of these studies examined the determinants of farmers' membership of cooperatives; the gap that the present study is designed to fill. This study therefore examines the determinants of farmers' membership of cooperatives in Otukpo LGA of Benue state.

Specifically, the study will-

- identify types of cooperative societies prevalent in the study area;
- determine the sources of awareness of cooperative societies;
- determine farmers' socio-demographic factors affecting their membership of cooperative societies;
- identify benefits derived by farmers as members of cooperatives and
- identify constraints faced by farmers' cooperatives in the study area.

METHODOLOGY

Study Area: The study was carried out in Otukpo LGA of Benue state. The area is inhabited mainly by the *Idomas* and are predominantly farmers growing a wide range of crops such as yams, cassava, groundnut, sweet potatoes, sorghum etc.

Data Collection and Sample Size

A multi-stage sampling technique was used in data collection. Otukpo LGA was divided into four districts of Otukpo, Adoka, Ugboju and Akpa. From each district, two villages were chosen at random, and from each village, fifteen farmers were randomly selected in cases of Otukpo and Adoka while ten farmers were selected in cases of Ugboju and Akpa. This gave a total sample size of 100 farmers. Information was collected by means of a structured questionnaire on the socio-demographic characteristics of the farmers, their membership of cooperatives as well as benefits and problems associated with their membership. However, only 90 copies of the questionnaires were retrieved and used in the analysis.

Data Analysis

Statistical tools used include; frequency counts, percentages and logit regression model. The parameters of the logit regression model were estimated using the maximum

ed to work harder in order to educate farmers on the importance of forming and joining cooperatives.

Logit results showing the determinants of farmers' membership of cooperatives

Table 3 shows the effects of socio-demographic factors on farmers' membership of cooperatives using the logit model. The model is significant based on the overall chi-square statistic. Four of the nine explanatory variables were significant and had the hypothesized signs.

Age was negative and significant at 5% level of probability. This suggests that, an increase in age of farmers decreases the probability of becoming a member of cooperative. This result could be explained by the conservative attitude of aged farmers towards change and innovations, (Oboh *et al*, 2006).

With respect to sex, the effect was positive and significant at 5%. This implies that men were more likely to become members of cooperatives than women. This result may be surprising, given that women by culture do not have equal freedom of association as men.

The level of education of farmers was found to be positive and significant at 5% level. This means that an increase in the educational level of the farmer increases his probability of becoming a cooperative member. Oboh *et al*, (2006), found a positive relation between memberships of cooperative and level of education of the farmer.

Increase in farmers' income improves their chances of becoming members of cooperatives. This may be because membership necessarily requires money for registration, contributions and savings. According to Ijere (1992), cooperators that fail to perform their financial obligations usually lose their membership.

Contact with extension agent was insignificant, suggesting the low enlightenment role expected of agricultural extension agents. Other insignificant variables include: household size, marital status, farm size and farming experience.

Benefits derived from Membership of Cooperatives.

Table 4 showed the distributional pattern of respondents based on benefits derived from membership of cooperatives. Provision of credit facilities (86.7%), social interactions (82.2%) and supply of agricultural inputs (35.8%) were the three main benefits enjoyed by the respondents. About 11.9% claimed that they did not benefit in any way from being members of cooperatives. This result suggests that cooperatives in the study area have been able to meet the credit and input supply needs of majority of their sampled members. This agreed with the findings of Onumaegbu (1988), that cooperatives could be used in rural areas to mobilize savings for onward disbursement to members thereby reducing poverty.

Problems encountered by cooperatives

Table 5 identified the major constraints faced by respondents in cooperative societies. These include inadequate funds (97%), lack of access to farm inputs (94%) and lack of government support (55.2%). This suggests that farmers were unable to mobilize enough funds that could meet their economic needs. Also, even when funds are available, accessibility to farm inputs seemed to be a problem.

CONCLUSION.

This study identified the major determinants of farmers' membership of cooperatives in Otukpo LGA of Benue state. The major types of cooperative in the study area include multipurpose, thrift and credit and agricultural input supply cooperatives. Farmers

identified mass media, friends/relations and community development associations, main sources of awareness about cooperatives.

Furthermore, the logit regression model identified farmers' age, sex, education, annual income as major determinants of membership of cooperatives. Farmers identified the provision of credit, social interactions and supply of agricultural inputs as major benefits derived from being members of cooperatives. Key problems faced by members include inadequate funds, lack of access to farm inputs and lack of government support.

Based on the above findings, it is recommended that extension agents should intensify efforts in educating the farmers more on the usefulness of joining cooperatives. In addition, government and non-governmental organizations (NGO) should assist farmers' cooperatives by granting them soft loans and ensure availability of agricultural inputs.

Table 1: Distribution of respondents according to types of cooperatives (n = 67)

Types of Cooperative	Frequency	Percentage
Multipurpose	65	97.0
Thrift and Credit	45	67.2
Agric Input supply	36	53.7
Food Production, Marketing and Distribution	33	49.3
Livestock	26	38.8
Fisheries	17	25.4
General business/trading	12	17.9
Food processing and storage	9	13.4

Note: Multiple responses recorded.
Source: Field survey, 2006.

Table 2: Distributional pattern of respondents based on first source of awareness about cooperative societies (N = 86).

Source	Frequency	Percentage
Mass media	22	25.6
Friends/relations	19	22.1
Community meetings	18	20.9
Extension agents	14	16.3
Cooperators	10	11.6
Churches/mosques	3	3.5
Total	86	100.0

Source: Field survey, 2006.

Table 3: Logit result showing the determinants of farmers' membership of cooperatives.

Variables	Coefficients	Standard errors
Age (X1)	-0.1699	-0.0921*
Sex (X2)	1.2272	0.9420*
Educational level (X3)	0.1191	0.1375*
Household size (X4)	0.4592	0.2864

REFERENCES

- Agbo, F.U. (1999), *Elements of agriculture for Cooperative Colleges, Polytechnics and Universities*. Phoenix press Co. Enugu. Pp. 154-156.
- Huppi, M. and G. Feder (1990), *The Role of groups and credit cooperatives in rural lending*. *The World Bank Research Observer*. 5 (2): 187 – 204.
- Idi, S., S. Muhammed, B.M. Hamidu and Z.C. Kanawa (2006), *A comparative study of participants and non – participants of women agricultural cooperatives in Tafawa Balewa LGA of Bauchi state*. In: Adepoju, S.O. and P.B. Okuneye (eds.), *Technology and Agricultural Development in Nigeria*. Proceedings of the 20th Annual National Conference of Farm Management Association of Nigeria (FAMAN) held at Federal College of Forestry, Jos, Nigeria, 18th-21st Sept. Pp. 478-482.
- Ijere, M.O. (1992), *Prospects of Nigerian Cooperatives*. Acena Publishers, Enugu. Pp. 12-16.
- Light, J. (1979). *Sociology*. Alfred Knopf Inc. New York. P.63.
- Nnadi, F.N. and C.D. Akwiwu (2002), *Farmers' credit opportunities: A case study of Cooperatives and Isusu clubs in Oru-West LGA of Imo state*. In: Olowu, T.A. (ed). *Stakeholders' participation for strengthening Agric. Extension practice and food security in Nigeria*. Proceedings of the 8th Annual Conference of the Agric. Society of Nigeria held at the University of Benin, Nigeria, 16th – 19th Sept. Pp. 135-140.
- Nwoko, S.G. (1991), *Comparative occupational analysis of women in two selected Igbo communities and effects on food production in Nigeria*. *Women in Nigerian Economy*. Acena Publishers, Enugu.
- Oboh, V.U., G.C. Aye and A. Hyande (2006), *Socio-economic determinants of farmers' adoption of improved cassava varieties in Oju LGA of Benue state*. In: Adepoju, S.O. and P.B. Okuneye (eds.), *Technology and Agricultural Development in Nigeria*. Proceedings of the 20th Annual National Conference of Farm Management Association of Nigeria (FAMAN) held at Federal College of Forestry, Jos, Nigeria, 18th-21st Sept. Pp. 478-482.
- Okuneye, P.A. and M.S. Igben (1981), *Cassava production under cooperative and non-cooperative peasant production system: A comparative analysis*. NISER monograph series No.11, p.23.
- Olowu, T.A. and C.O. Igodan (1989), *Farmers' media use pattern in six villages in Kwara state, Nigeria*. *Rural Development in Nigeria*, 3 (2): 98-102.
- Omenesha, Z.E. (1991), *The effect of radio on agricultural development in the northern states of Nigeria*. In: Lawani, S.M. and T. Babalaye.(eds.). *Media forum for Agriculture*. IITA, Ibadan, Nigeria.

Annual income (X5)	0.0578	0.0256**
Marital status (X6)	1.7946	1.3052
Farm size (X7)	0.0588	0.5139
Farming experience (X8)	0.0990	0.1137
Contact with extension (X9)	0.0222	1.7070
Intercept	1.3769	3.7524
-2 log likelihood ratio	51.398	
Chi-square	43.443*	

**denotes significance at 1%; * denotes significance at 5%.

Table 4: Distributional pattern of respondents based on benefits derived from membership of cooperative societies (N = 67).

Benefits	Frequency	Percentage
Provision of credit facilities	58	86.7
Social interactions	35	52.2
Supply of agric inputs	24	35.8
Marketing assistance	17	25.4
None	8	11.9

Note: Multiple responses recorded.
Source: Field survey, 2006.

Table 5: Distributional pattern of major constraints faced by respondents as members of cooperative societies (N = 67).

Constraints	Frequency	Percentage
Inadequate funds	65	97.0
Lack of access to farm inputs	63	94.0
Lack of government support	37	55.2
Ineffective leadership	24	35.8

Note: Multiple responses recorded.
Source: Field survey, 2006.

Onumaegbu, J. (1988). *Fighting absolute poverty in Nigeria through cooperatives.*
Journal of Cooperative Newsletters. No. 1.

Pindyck, R.S. and D.L. Rubinfeld (1977), *Econometric models and economic forecasts.*
McGraw Hill Publ. Co. Pp. 248-268.