



Effect of Women Led Self Help Group on Micro-Financing of Farms in Isuikwuato Local Government Area of Abia State, Nigeria

*Anyiro C.O¹, Okonkwo K.N² and Udah S.C¹

¹Department of Agricultural Economics and Extension, Abia State University, Umuahia Campus, PMB 7010, Umuahia, Abia State, Nigeria.

²Department of Agricultural Extension and Management, Imo State Polytechnic Umuagwu, Imo State, Nigeria.* Corresponding author's Email Address: anyirochidozie@gmail.com

The study examined the effect of women led self help group on micro-financing of farms in Isuikwuato Local Government Area of Abia State, Nigeria. Purposive and multistage random sampling technique was employed for collecting data from one hundred and twenty (120) women farmers in women led self help group by using structured interview schedule. The data were analyzed using descriptive statistics, paired t-test and OLS regression analysis. The study revealed that the mean loan size accessed by the women farmers from self help group led micro financing of farm was ₦99,325. The result of the study revealed that the mean (₦99,325) volume of farm credit accessed from women self help group was greater than that (₦60,033.33) obtained outside the women self help group led micro financing of farms. Also the result of the paired t-test for difference in net farm income of the women farmers before and after accessing micro loans from women self help groups showed that the women self help group impacted significantly on the mean annual farm income of its members. The result of the multiple regression analysis showed that the volume of fund accessed from women self help group led micro financing of farms was influenced by education, marital status, years of borrowing, farm size and annual contribution of the respondents. The R² and F-ratio values were 0.5294 and 15.47 respectively. It was however, recommended that the women should join high performing women led self help group that would give them opportunities of making reasonable savings in a year. This will encourage thriftiness in their individual farm businesses and reduce their dependence on loans from outside.

Key words: Self Help Group, Women Farmers, Micro Financing, Farm Credit

1. Introduction

Women constitute a formidable and significant live wire of peasant farming in Nigeria, providing between 70% and 80% of food produced and consumed in Nigeria (Food and Agricultural Organization (FAO) 2004; Nwankwo, 2004; World Bank, 1996). In spite of this, they still face a lot of hardship that have forced them to remain perpetually small-scale producers. Rural women farmers in Nigeria had been described as small scale operators, tenants or landless, characterized by low income and high nutritional deficiency. Although women farmers contribute significantly to agricultural production in Nigeria, they are least likely to benefit from agricultural extension services, agricultural credit schemes and technologies that would improve their productivity. This has been as a result of barriers exerted by cultural, social, biological and religious factors (Nwaru, 2003; Ijere, 1991). In fact, there is a strong case for arguing that without credit, it is

difficult to see how women smallholders could generate incomes that can sustain an adequate livelihood (Durno and Stuart 2005; Hoddinott, 1998;). However, most women in rural areas take initiatives to improve their own standard of living. They do these by engaging most in self help group led micro financing of farms.

A Self Help Groups (SHGs) is a village-based financial intermediary usually composed of 10-20 local women. Members make small regular savings contributions over a few months until there is enough capital in the group to begin lending to the members or to others in the village. They use the pooled resources to meet the credit needs of the group member. The groups are democratic in nature and collectively make decisions.

Self Help Groups (SHGs) play effective roles in promoting empowerment through giving of loans to members. They have helped in fighting poverty and have assisted in promoting microfinance

Abstract

Received: 12 October 2013,
Revised: 29 October 2013,
Revised: 28 November 2013,
Accepted: 29 December 2013

programme in Nigeria. Self Help Groups (SHGs) are growing in number and are receiving increasing attention from the financial institution, non-governmental organization (NGO) and the government as one sure way to transform lives for the poor.

Micro-finance is the supply of loans, savings and other basic financial services to the poor. These poor women farmers require diverse range of financial instruments to meet working capital requirement, build assets, stabilize consumption and shield themselves against risks. In practice, micro finance is more than disbursement, management and collection of small loans. It is a flexible process by which financial services are delivered to owners of micro-enterprises on sustainable basis. It is therefore, the objectives of this study to specifically;

- i. Describe socio-economic characteristics of women farmers involved in Self Help Groups for farming in the study area.
- ii. Determine the amount of farm credit accessed by women beneficiaries from Self Help Groups led micro financing of farms in the study area.
- iii. Determine the difference in the volume of credit accessed by women from self help group and outside their self help group in the study area.
- iv. Determine the impact of credit accessed from self help groups on women farm income in the study area.
- v. Determine the factors influencing the volume of credit accessed from women led self help group in the study area.

Hypothesis Tested

H₀₁: There is no significant difference in the volume of farm credit accessed by women from Self Help Groups led micro financing of farms and that accessed from outside the women Self Help Groups.

H₀₂: There is no significant difference in net farm income of women farmers before and after accessing micro loans from SHGs in the study area.

H₀₃: The volume of credit accessed from women led SHGs is not significantly influenced by age, marital status, educational level, household size, annual contribution, years of borrowing, farm size, interest rate and farm income of the women

2. Materials and methods

The study was conducted in Isuikwuato Local Government Area (LGA) of Abia State, Nigeria. The LGA was purposively chosen because it is one of the major food producing areas in Abia State and majority of its farm labour force are women and live in the rural areas. The Local Government Area lies between latitude 5°41'N and 5°46'N of the

equator and longitude 7°25'E and 5°46'N of the Greenwich Meridian. It has a land area of 7627.20 square kilometers with a population of 73,744 people. Of these 1,108,357 (48%) are males while 1,189,621 (52%) are female (NPC, 2006).

Purposive and multi stage random sampling technique was used in the selection of autonomous communities, villages; women led self help groups and respondents. In the first stage, five autonomous communities were randomly selected from the Local Government Area. The second stage involved the random selection of two villages from each of the chosen autonomous communities. This gave a total of 10 villages. From each of the chosen communities, a list of women led self help groups were obtained from the village secretaries who were the key informants. These formed the sampling frame for the women self help groups from which samples of two women led self help groups were randomly selected in each of the selected villages, thus giving a total of 20 women self help group led micro financing of farms. The last stage of sampling involved the purposive selection of 6 women farmers in each of the selected women led self help groups who had accessed farm credit from within and outside the women led self help groups. This gave a total sample size of 120 women farmers. The instrument of data collection was via a set of pre-tested and structured questionnaire.

The various analyses carried out include the use of mean, frequency counts, paired t-test and Ordinary least square (OLS) regression analysis.

Paired treatment test (paired t-test) for difference in the volume of credit accessed by women from self help group led micro financing of farms and that accessed from outside the women self help groups was used.

3. Results and discussion

3. 1 Socio-Economic Characteristics of respondents:

The socio-economic characteristics of the women farmers in self help group led micro-financing of farms are shown in Table 1. The mean age of the women was 40.79 years. This is an indication that the women farmers in self help groups in the study area were mostly middle aged that were within the active productive work force. Majority (91.67%) of the women were literate possessing divers' formal educational levels that ranged from primary school education to tertiary school education. Majority (78.33%) of the women members of self help groups were married with a mean household size of 4.3 persons. The result also shows that the mean number of years spent in women led self help groups was 5.5 years. This indicates a moderate membership

experience among the women in self help group led micro financing of farms in the study area. The mean annual income and farm size of the women farmers were ₦100,741.7 and 1.2 hectares respectively.

3.2 Amount of credit accessed by women beneficiaries from Self Help Groups for farming:

The distribution of the women according to the amount of credit accessed from Self help groups for farming in Isuikwuato LGA of Abia state, Nigeria is presented in Table 2. The table showed that a good proportion of the women (57.5%) were given loan below ₦50,000. Also, a fairly good proportion of the women (21.67%) received between ₦50,000 and ₦100,000 while 7.5%, 8.33% and 2.5% others accessed micro credit between ₦100,001- ₦150,000, ₦150,001- ₦200,000 and ₦200,001- ₦250,000 respectively. The mean loan size accessed by the women farmers from self help group led micro financing of was ₦99,325. This indicates an appreciable amount of credit accessed by women from self group for farming. However due to gross shortage of loanable funds, available funds were rationed among the numerous successful applicants.

3.3 The impact of women self help group on micro financing of farms:

The result of the paired t-test for difference in the volume of credit accessed by women from self help group led micro financing of farms and that accessed from outside the women self help groups led micro financing of farms is shown in Table 3.

The result shows that the mean farm credit accessed by the women from their self help groups was ₦99,325 while the mean farm credit accessed by the women from outside the women self help group was ₦60,033.33. The mean difference between the two farm credit was ₦39,291.67 with a standard error of 6570.01. The paired 't' result showed that this is statistically significant at 1.0% risk level because the calculated 't' = 3.4882 > the tabulated $t_{0.025} = 2.58$. Therefore the null hypothesis is rejected. This implies that the mean volume of farm credit accessed from women self help group was greater than that obtained outside the women self help group led micro financing of farms.

Table 1. Socioeconomics of women farmers in led self help groups in Isuikwuato L.G.A of Abia State Nigeria

Variables	Mean	Standard deviation
Age (years)	44.24	25.453
Household size (number)	4.25	2.167
Number of Years spent in local institution	5.5	2.95
Annual Income (₦)	100,741.7	73173.39
Farm size (hectare)	1.2	0.667
Marital Status	Percentage	
Single	21.67	
Married	78.33	
Education level	Percentage	
No formal education	8.33	
Primary education	28.33	
Secondary education	31.67	
Tertiary education	31.67	

Source: Field Survey data, 2013; Note 1 USD = ₦160

Table 2. Distribution of women farmers according to the amount of credit accessed from self help groups for farming in Isuikwuato LGA of Abia State.

Amount of credit received (₦)	frequency	percentages
≤ 50,000	69	57.5
50,000-100,000	26	21.67
100,001-150,000	9	7.50
150,001-200,000	10	8.33
200,001-250,000	3	2.50
250,001-300,000	3	2.50
Total	60	100.00

Mean=99,325; Source: Field Survey Data, 2013

Table 3. Result of paired t-test for difference in the volume of credit accessed by women.

Variable (Credit accessed from...)	Individual mean	Mean difference	Standard Error	T-value
women self help group	99,325			
outside women self help group	60,033.33	39,291.67	11264.2	3.4882

Source: Field Survey data, 2013.

3.4 The effect of credit from Self Help Groups on farm income:

The result of the paired t-test for difference in net farm income of women farmers before accessing micro loans from SHGs and their net farm income after accessing micro loans from SHGs is shown in Table 4.

The result shows that the mean net farm income of women farmers before accessing micro loans from SHGs was ₦90,741.67 while the mean income after accessing micro loans from SHGs was ₦111,408.3. The mean difference between the two net farm income was ₦20,666.67 with a standard error of 6570.01. The paired 't' result showed that this is statistically significant at 1.0% risk level because the calculated 't' = 3.1456 > the tabulated "t"_{0.025} = 2.58. Therefore the null hypothesis is rejected. This implies that the net farm income of women farmers after accessing micro loans from SHGs was greater than their net farm income before accessing micro loans from SHGs. This result compared favourably with Anyiro et al (2014) who obtained similar result among members of local institutions in Abia State.

3.5 Factors influencing the volume of credit accessed from women self help group:

The result of multiple regression estimates of the factors influencing the volume of credit accessed from women self help group led micro financing of farms in Isuikwuato LGA of Abia State are presented in Table 5. The result shows that the coefficient of multiple determination (R^2) was 0.5294 implying that the independent variables jointly explained 52.9% of variation in the dependent variable. The intensity of the explanatory power of the model was confirmed by the significance of the F-ratio of 15.47 at 1.0% level of probability.

Among the test variables, the coefficient (42021.95) of education was statistically significant at 5.0% risk level and had a positive coefficient. With its positive coefficient, it indicates that increase in education attainment of the women farmers increases the volume of credit accessed from women self help group led micro financing of farms.

The coefficient (14155.6) of years of borrowing had positive relationship with the volume of fund accessed from the women self help group in the study area and was significant at 10.0%

probability level. This implies that women credit history increases the amount of credit accessed in women self help group led micro financing of farms. This agrees with a priori expectations and much in tandem with Nwaru (2004) and Essein (2009) that the number of years an individual has been involved in borrowing may give an indication of the practical knowledge he has gained on how to overcome the problems associated with borrowing at minimal costs. Also the consistency in borrowing and relationship developed over years with lenders would critically sort them for honesty and genuineness. Nwaru (2011) observed that this would lead to reduction in loan delinquency and default, hence, increase in the amount of loan repayment.

The coefficient (167782.5) of marital status was positive and significant at 5.0% probability level. The positive sign of this coefficient shows that volume of credit accessed in women self help group led micro financing of farms increases among the married women. This is in line with a priori expectations. Informal credit suppliers will usually disburse credit depending on the marital status of the farmer.

In line with priori expectation, the annual cash contribution of women to their Self help group had a positive coefficient (5.335807) and was statistically significant at 5.0% alpha level. This implies that total annual cash contribution of the women increases the volume of fund accessed from women self help group led micro financing of farms. Women annual cash contribution made to self help group is presumably a sign of greater interest in the association and serves as a collateral effect for women wanting to borrow money.

The coefficients (-42802.19) of farm size was negative and statistically significant at 10.0% level of significance. This implies that the amount of credit accessed by the women from self help group led micro financing of farms decrease with increase in farm size. Although the negative coefficient of farm size is at variance with a priori expectation, it suggests efficiency in the use of land rather than expansion of cultivated areas as a necessary requisite that could increase the amount of credit accessed from women self help group led micro financing of farms.

Table 4. Result of paired t-test for difference in net farm income of women farmers

Variable (Net Farm Income...)	Individual mean	Mean difference	Standard Error	T-value
before accessing micro loans	90741.67			
after accessing micro loans	111408.3	20666.67	6570.01	3.1456

Source: Field Survey data, 2013.

Table 5. Multiple regression analysis result of the factors influencing the volume of fund accessed from women self help group led micro financing of farms in Isuikwuato LGA of Abia State

Variable	Coefficient	Standard error	t-value
Constant	339274.7***	134996.9	2.51
Age	168.7753	2053.521	0.08
Education	42021.95	18932.27	2.22
Marital status	167782.5	83685.38	2.0
Household size	2058.241	17598.06	0.12
Farm size	-42802.19	26120.97	-1.64
Farm income	0.0012684	0.5499539	0.00
Amount contributed	5.335807	2.336078	2.28
Years of borrowing	14155.6	7198.172	1.97
Interest rate	37990.23	25948.79	1.46
R ²	0.5294		
Adjusted R ²	0.4952		
F-ratio	15.47***		

***, **, * denote significant at 1.0%, 5.0% and 10.0% alpha level respectively

4. Conclusion and Recommendations

The research had shown that the mean loan size accessed by the women from self help groups led micro financing of farms was appreciably high. The research revealed also that the mean volume of farm credit accessed by the women from women self help group led micro financing of farms was greater than that obtained outside the women self help group led micro financing of farms in the area. Meanwhile the critical determinants of the volume of fund accessed from the women self help group led micro financing of farms were education, farm size, marital status, years of borrowing and annual cash contribution of the respondents. Since increased savings is a necessity among women and a veritable instrument which enables them makes meaningful investments in agriculture, it is only rational that such women should join high performing women led self help group that would give them opportunities of making reasonable savings in a year. This will encourage thriftiness in their individual farm businesses and reduce their dependence on loans from outside.

References

- Anyiro C. O., Ezeh C. I., Ijioma, J. C and Udensi A. I. (2014). Local institutions' micro credit delivery and effects on rural farm households' poverty in Abia State, Nigeria. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*. 14(1): 21-28.
- Durno, J., and Stuart, R. (2005). Gender issues in sustainable agriculture. p.24-37 . In Overholt C. (ed.). *Gender roles in development projects*. New Delhi Fox Publisher, New Delhi, India.
- Essein, U. A. (2009). Gender, informal credit markets and determinants of credit use by food crop farmers in Akwa Ibom State of Nigeria. M.Sc.

Thesis. Michael Okpara University of Agriculture, Umudike, Nigeria.

- Ezeh, C. I and Anyiro, C. O. (2013). The impact of micro financing on poverty levels of rural women farm households in Abia State, Nigeria; Implication for Policy Intervention. *Journal of Central European Agriculture*. 14(2): 168-180.

- FAO. (2004). Sustainable development and management wetlands; Wetland contribution to livelihoods in Zambia. Food and Agricultural Organization (FAO), Rome, Italy.

- Hoddinott, S. A. (1998). Implementation of the poverty alleviation programme: Lilongwe, Malawi MIT press p.12.

- Ijere, M. O. (1991). Agricultural credit policies in Nigeria: a review of achievements, problems and prospect". *Economic and financial review*. Central Bank of Nigeria (CBN) 23(4): 40-47.

- Nwankwo, I. I. M. (2004). Impact of community banks on women farmers poverty levels in rural Abia state, Nigeria". MSc. Thesis Department of Agriculture, Abia State University Uturu, Nigeria.

- Nwaru, J. C. (2003). Gender and relative production efficiency in food crop farming in Abia State, Nigeria. *Nigerian. Agricultural. Journal*. 34:1-10.

- Nwaru, J. C. (2004). Rural Credit Markets and Resource use in Arable Crop Production in Imo State of Nigeria. Ph.D. Dissertation, Michael Okpara University of Agriculture, Umudike, Nigeria.

- Nwaru, J. C. (2011). Determinants of informal credit demand and supply among food crop farmers in Akwa Ibom State, Nigeria. *Journal of Rural and Community Development*. 6(1): 129-139.

- National Population Commission (NPC). (2007). *Census Report*. National Population Commission (NPC). Umuahia, Abia State, Nigeria.

13. World Bank. (1996). Nigeria; poverty in the Midst of Plenty. The Challenge of Growth with inclusion. Report No. 14733 – UMI.