Effect of Credit from Self Help Groups on Women Farmers' Farm Income in Isuikwuato Local Government Area of Abia State, Nigeria

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ABSTRACT

The study examined the effect of credit from self help groups on women farmers' farm income in Isuikwuato Local Government Area of Abia State, Nigeria. Purposive and Multistage random sampling technique was employed in the sample selection of one hundred and twenty (120) women members of self help groups. The instrument of data collection was via a set of pre-tested structured questionnaire. The data were analyzed using descriptive statistics, paired t-test and OLS regression analysis. Findings revealed that the mean loan size accessed by the women farmers from self help groups was ₦99,325.00. The result of paired t-test for difference in the volume of credit accessed by women from self help groups and outside self help group showed that the mean (₦99,325) volume of farm credit accessed from women self help group was greater than the mean amount (₦60,033.33) obtained outside women self help groups. Also the result of the paired t-test for difference in the net farm incomes of the women farmers before and after accessing micro credit from women self help groups showed that the mean net farm income of women farmers before accessing micro credit from SHGs was ₦90, 741.67 while their mean income after accessing micro credit from SHGs was ₦111, 408.3. The mean difference between the two net farm incomes was ₦20, 666.67 with a standard error of 6570.01. The result of the multiple regression analysis showed that the volume of funds accessed from women self help groups was influenced by education, marital status, years of borrowing experience, farm size and annual contribution of the respondents. The R^2 and F-ratio values were 0.5294 and 15.47 respectively. It was however, recommended that the women should join high performing women self help groups 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.

Keywords: Self help group, Women farmers, Micro financing, Farm credit

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 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 micro financing of farms.

A Self Help Group (SHG) is a village-based financial intermediary usually composed of 10-20 local women. Members make small regular saving 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 members. 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 in Nigeria. Self Help Groups (SHGs) are growing in number and are receiving increasing attention from the financial institutions, Non-Governmental Organizations (NGOs) and the governments as one sure way to transform lives for the poor.

A major constraint of farmers (especially women farmers) in Nigeria is how to obtain credit from formal financial institutions such as banks for farm operations. Unavailability of credit from financial organizations in Nigeria has resulted into the use of financial self – help groups to alleviate their sufferings in meeting financial needs. (Enabulele and Alufohai; 1999). 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. The objectives of this study therefore were 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

iii. compare the difference in the volume of credit accessed by women farmers from within and outside women self help groups 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.

METHODOLOGY

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 that participate actively in women self help groups. The LGA lies between longitudes 05^0 $32^/$ North of the equator and 07^0 $29^/$ East of the Greenwich Meridian. The Local Government Area is bounded in the North by Umunneochi Local Government Area in Abia State, in the South by Bende Local Government Area also in Abia State, in the West by Okigwe Local Government Area in Imo State and in the East by Ivo Local Government Area in Ebonyi State. It has a land area of 144.0 square kilometers with a population of 115,749 people. Of these, 56,660 (48.95%) are males while 59,134.621 (51.05%) are female (NPC, 2006).

Multi-stage and purposive random sampling technique was used in the selection of autonomous communities, villages, women self help groups and respondents. In the first stage,

five out of sixty autonomous communities that made up the Local Government Area were randomly selected. 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 villages, a list of women led self help groups was obtained from the village secretaries who were the key custodian of village information. 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 groups. The last stage of sampling involved the purposive selection of 6 women farmers in each of the selected women self help groups who had accessed farm credit from within and outside the women 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 structured questionnaire. The data were analyzed using descriptive statistics, paired t-test and OLS regression analysis.

Paired treatment test (paired t" test) was used to compare the difference in the volume of credit accessed by women from self help groups and the volume of credit accessed from outside the women self help groups. Similarly, paired treatment test (paired 't' test) was also used to determine the difference in the net farm income of women farmers before and after accessing micro loans from Self Help Groups.

The Ordinary Least Square (OLS) multiple regression model is implicitly stated as:

$Y = f (X_1, X_2, X_3, X_4, X_5, X_6, X_7........Xn, ei)$ ……………………………………….(1)

Where:

Y = amount of credit accessed from women self help group (Naira)

X_1 = age (years)

X_2 = marital status (D=1 if Married, 0=Otherwise)

X_3 = educational level (Attainment of formal education; no formal education=0, primary education=1, secondary education=2, tertiary education=3)

X_4 = household size (number)

X_5 = annual contribution (Naira)

X_6 = farm size (hectare)

X_7 = interest rate (%)

X_8 = farm income (Naira)

X_9 = years of borrowing (years)

ei= error term

RESULTS AND DISCUSSION
Socioeconomic characteristics of respondents

The socio-economic characteristics of women members of self help groups in the study area are shown in Table 1. The table shows that the mean

age of the women farmers was 40.79 years (40.79 ± 25.453). This is an indication that the women farmers in self help group in the study area were mostly middle aged that were within the active productive work force. Majority (91.7%) of the women were literate possessing diverse formal educational levels that ranged from primary school education to tertiary school education. Majority (78.3%) of the women members of self help groups were married with a mean household size of 4.3± 2.17 persons. The result also shows that the mean number of years of membership in women self help groups was 5.5±2.95 years. This indicates a moderate membership experience among the women in self help group micro financing of farms in the study area. The mean annual income and farm size of the women farmers were ₦100,741.7 (±73173.39) and 1.2 (± 0.67) hectares respectively.

Table 1
Socioeconomic characteristics of women farmers in women 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	

Amount of credit accessed by women beneficiaries from self help groups

The distribution of the women farmers 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 shows that a good proportion of the women (57.50%) 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% 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 groups was ₦99,325.0 (±29,865). 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.

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

Amount of credit received (₦)	Frequency	Percentages
≤ 50,000	69	57.50
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	
Standard deviation	29,865	

Difference between volume of credit from SHGs and non SHGs sources

The result of the paired t-test for difference in the volume of credit accessed by women from self help group and that accessed from outside the women self help groups is shown in Table 3.The result shows that the mean farm credit accessed by the women from their self help groups was ₦99,325.0 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 ± 6570.01. The paired 't' result showed that this was statistically significant at 1.0% risk level. 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. This could be attributed to the regular cash contributions/savings made by the women to their self help groups which are used for general running of the group and loaned as micro credit to members who signify interest in loan. This has implication in raising agricultural productivity and income of the women farmers.

Table 3
Result of paired t-test for difference in the volume of credit accessed by women from self help groups and that accessed from outside the women self help groups in Isuikwuato LGA of Abia State, Nigeria.

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

The effect of credit from SHGs on women farmers' 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 incomes 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 was statistically significant at 1.0% risk level. 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.

Table 4
Result of 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 in Isuikwuato LGA of Abia State, Nigeria.

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

Factors influencing the volume of credit accessed from SHGs

The result of multiple regression estimates of the factors influencing the volume of credit accessed from women self help groups 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 this positive coefficient, it indicates that increase in education attainment of the women farmers increased the volume of credit accessed from women self help group. . A high literacy level is an advantage in the procurement of micro credit. This may be because women farmers that had formal education have better loan management tendency and also better tendency towards adopting new technology to enhance their productive activities. As expected, higher education would enhance improved technology adoption hence increased farm income and greater ability to repay (Njoku and Odii 1991; Ezeh *et al*, 2012).

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 statistically significant. This implies that women's credit history increases the amount of credit accessed in women self help group. 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 credit worthiness, 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 implies that the volume of credit accessed from women self help group 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. It is likely that the married respondents were more relatively stable, making their group to view them as more reliable, credit worthy, hence more likely to receive micro credit compared to the unmarried.

In line with *priori* expectation, the value of annual cash contribution of women to Self help group had a positive coefficient (5.335807) and was statistically significant at 5.0% alpha level. This implies that an increase in total annual cash contribution of the women results to an increases in the volume of fund accessed from women self help group. Women's annual cash contributions made to self help group is presumably a sign of greater interest in the association and serve as 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 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. Also, this is an indication that women's rights of access to land are still regarded as secondary to those of men and many customs suggest that women's access to land is still mediated via patrilineal systems (Aluko and Amidu, 2006).

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

CONCLUSION AND RECOMMENDATION

The research established that the mean loan size accessed by the women from self help group was appreciably high. The research revealed also that the mean volume of farm credit accessed by the women from women self help group was greater than that obtained outside the women self help groups in the area. Meanwhile, the critical determinants of the volume of funds accessed from the women self help groups by the women 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 make meaningful investments in agriculture, it is only rational that such women should join high performing women 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.

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