

Determinants of Loan Repayment Performance Among Women Self Help Groups in Bayelsa State, Nigeria

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Summary

This paper investigated the determinants of loan repayment performance among women self-help groups in Bayelsa State, Nigeria. A structured questionnaire was used to gather information from one hundred and twelve (112) women farmers from eight communities within the States, using the multistage sampling technique. The study revealed that credit was available for agricultural production, processing and petty trading among women farmers. The mean amount of loan disbursed to farmers was ₦18,147.3 while the mean amount of ₦15,000 was repaid. Loan repayment percentage was determined to be 83.73% while percentage default was 17.27%. The estimated regression model indicated that women as household heads (X_2), interest rate (X_3) and household size (X_4), negatively and significantly affected the loan repayment performance of women farmers while price stability of farm proceeds (X_5) and commitment to self help groups (X_6), positively and significantly affected the loan repayment of women farmers in self help groups in the area. It was therefore recommended that more self help credit/saving groups be established in the state and that financial institutions within the state should form a linkage with this groups for efficient loan scheme.

Key words

determinants; loan repayment; performance; women self-help

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Introduction

The active participation of women in agriculture has called for the current paradigm of rural economic development via women empowerment. Nweze (1995) observed that rural women: (i) are too poor to save, (ii) lack ability to organize financial self-help activities and (iii) need cheap credit to expand production and income in their farms and non-farm activities. Nwajiuba (1999) accentuates the centrality of credit, especially for women farmers to increase their investment in the absence of adequate savings. Credit is a critical input because it can be used to overcome other obstacles, such as lack of labour. More than 80% of Nigerian rural women farmers, who produce most of the food and agricultural raw materials, make use of many kinds of capital, such as seeds, fertilizers, animal feeds, agro-chemicals, fishing equipment for which they need financial support in the form of micro-credit. However, the women farmers are perpetually marginalized in the institutionalized credit programme. Hence, the micro-credits of the rural women farmers must be satisfied largely outside the organized financial markets such as indigenous self help group (SHG) for the purpose of pooling savings and credit mobilization. Micro-credit is the ultimate economic vehicle, through which resource-poor-women farmers can be empowered economically to overcome poverty.

According to Oluwalana et al. (2004), micro-credit in the rural area ranges between ₦20,000-₦100,000. Arising from the above, women farmers as the socially and economically weak and disadvantaged, often resort to the option of self-help saving\credit associations as alternative sources of informal credit (Upton, 1996). The relevant social aspects of people from Africa, according to Ijere (1992) are those aspects that deal with their attitudes to life and their mode of behaviour and relationship with one another as well as their customs. He hypothesized that these issues should be typified by such norms as honesty, fairness, equity, democracy and mutual fellow feelings.

Kazeem and Nwizu (1998) stated that mobilization involves the pooling of all available resources for an effective operation. It is a process of ensuring collective action based on social solidarity, commitment and conviction. Group credit programme has its origin in social cohesion between individuals that are held together by a common tie for the purpose of assisting each other with loans to start off or expand their businesses.

Group credit mobilization has the advantage of increased coverage of farming community, it allows for participation of more people of similar status and sex, time economy with respect to group credit extension programmes.

Upton (1996) postulated that financial mobilization under group cohesion have some advantages. For instance, since the group takes collective responsibility for repayment, there is less risk of default. Akubuilu et al. (1998) emphasized that credit obtained must be repaid according to agreed terms.

Credit repayment performance could be influenced by a myriad of factors such as interest rate, unstable prices of agricultural commodities, and the social relations and responsibilities of the borrower. The main programme of SHG includes saving mobilization, credit delivery and recovery. The formation of self-help group originated from the failure of many financial institutions to deliver sustainable financial services to the poor due to factors such as high transaction costs, low repayment rates and declining funding, from government and international donors (Mohammed, 2005).

A self – help group (SHG) is a voluntary association of people at the grass roots level to meet the challenges of economic and business activities in the rural cash economy (Mohammed, 2005). The members are held together by common objective usually focused on addressing economic challenges affecting their well – being. Group cohesiveness is one of the factors that affect group structure. Group cohesiveness refers to the extent to which members of a group want to continue as members of the group. This can be expressed by the level of commitment of the members to the success of the group. Social cohesion has the advantages of promoting savings and loan repayment behaviour among members.

According to Otu (2003), the commonest and the most widespread form of SHGs are the Rotating Savings and Credit Association known in the financial parlance as ROSCA. It is sub-set of the informal financial institutions that cover a wide spectrum of economic activities including farming, fishing, petty trading and local processing and related micro enterprises that serve as sources of livelihood of millions of Nigeria in both rural and urban areas.

While there is the general support for credit mobilization by social groups and financial institutions, Hulme and Mosley (1996) maintained that the financial self-sustainability of all micro-credit groups need to be thoroughly examined.

The broad objective of the study is to investigate the Determinants of Loan Repayment Performance among Women Self Help groups in Bayelsa State of Nigeria. The specific objectives of the study are:

- i. to describe the operations and characteristics of the services rendered by women self-help financial groups in the study area;
- ii. to determine the volume of loan procured and repaid by women farmers in the study area;

- iii. to evaluate loan repayment performance of respondents;
- iv. to identify and analyze the socio-economic determinants of loan repayment performance of women farmers in the study area.

Research methodology

The Study Area, Sampling Techniques and Data Collection Techniques

The study was carried out in Bayelsa State of Nigeria. It is one of the states in the Niger-Delta region of Nigeria. This area was selected for the study due to the fact that the women farmers are at the forefront of agricultural production in the area but the socio-cultural setting that envelops them tends to inhibit their accessibility to agricultural resources, including finance.

A total of 112 (one hundred and twelve) respondent women farmers who are members of women – only – saving/credit association in the study area were randomly selected using the multi-state techniques, from four local government areas of Bayelsa State, Nigeria, and studied. The distribution is shown in the Table 1.

Table 1. Distribution of respondents

State	L.G.A	Communities	No. of Respondents
Bayelsa	1. Alagbem	1. Aghoro	14
		2. Legugbene	14
	2. Ekeremor	1. Ekeremor	14
		2. Ayamassa	14
	3. Oporomor	1. Ndoró	14
		2. Peretonigbere	14
	4. L.G.A	1. Ofoni	14
	4. L.G.A	2. Sagbama	14
	4. L.G.A	8 Communities	112

(Source: 2003 Survey Data)

Structured questionnaire was the instrument used for data collection. Five enumerators were selected and trained to assist in the field survey. They were however supervised by the research officers. Out of the one hundred and twenty copies of questionnaire administered, one hundred and twelve (112) copies were retrieved from the represents for the purpose of data analysis.

Data Analytical Techniques

Three methods of analysis were utilized viz: descriptive analysis, parametric correlation, t-test and ordinary least square (OLS) of multiple regression analysis (Koutsoyiannis, 2001).

Banqual (1993) used the percentage of total loan repaid as a measure of repayment performance of the borrower. But in this study, the researchers in addition to the tech-

niques of Banqual (1993), adopted student’s t-test to test the significant difference between the mean volume of micro-credit borrowed and the mean amount repaid. This was used as an index of credit repayment performance of the rural women farmers in the study following Achoja and Ideh (2005). The formula for calculating the student’s t-test according to Koutsoyiannis (2001) is given as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\frac{SD_1}{\sqrt{n_1}} + \frac{SD_2}{\sqrt{n_2}}}$$

At $n_1 + n_2 - 2$ degree of freedom

where:

\bar{X}_1 = Mean Volume of loan borrowed by women farmers from credit association

\bar{X}_2 = Mean Volume of loan repaid by women farmers to credit association

SD_1 = Standard deviation of loan borrowed by women farmers

SD_2 = Standard deviation of loan repaid by women farmers

n_1 = Number of women farmers that borrowed loan

n_2 = Number of women farmers that repaid loan

Model specification

Multiple regression analysis was conducted to determine the effect of the predictor variables on the loan repayment performance of the women farmers. The model is specified explicitly as follows:

$$Y_r = a + b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + \mu$$

where :

YR = Volume of loan repaid (₦)

X_1 = Cost of loan recover (y)

X_2 = Women as household heads (dummy)

X_3 = Interest rate (%)

X_4 = Household size (Number)

X_5 = Price stability of farm proceeds

X_6 = Commitment

μ = Stochastic disturbance term

Results and discussion

Socio – Economic Characteristics of Women Farmers in the Study Area

The results showed that majority (51.3%) of the respondents were married. This explains the degree of social responsibilities of the women farmers. The distribution of educational attainment showed that 52.5% had no formal education, 30.0% had primary education, 7.0% had secondary education and 0.5% had tertiary education.



The few that had tertiary education often assume leadership position of the groups. The results further revealed that 41.88% of the women farmers were classified as low income earners. This implies that their low income will lead to low savings, low investment and low farm output. This justifies their need for credit facilities. About 35.62% of them are medium income earners while 22.50% of them were in the high income group. Further more, majority of the women farmers (48.8%) had household size of six and above. About 40.6% had household size between four and five, while 10.6% had household size of one to three. The fact that majority of the women farmers had fairly large household size indicated that they need to be economically empowered through effective savings and credit schemes.

The Operations and Characteristics of Women Self-Help Savings/Credit Groups

The results of the study revealed that the majority (80%) of the women self-help savings/credit groups in the study area convened meetings on monthly basis during which applications for loans are made orally by members. These are documented and forwarded to awarding committee for approval. The monthly subscriptions so collected formed the pool of financial resources of the group from which loans can be disbursed to qualified members. 80% of the respondent women farmers that participated in the survey, agreed that they enjoyed access to credit in their groups with little or no difficulty.

Stated below are the characteristics of services that meet women farmers' financial needs in women self-help savings/credit groups in the study area:

- i. Credits were available for agricultural production, processing and petty – trading.
- ii. Collateral was not required because substitutes such as solidarity to the groups, character references and personal effects such as jewellery, were acceptable .
- iii. Credits were available in small amounts for short-term working capital.
- iv. Credit repayment schedules fit women farmers' business cycles.
- v. Credit/loan sizes may be increased upon satisfactory repayment of the first-time loans.
- vi. Micro-enterprises with few employees owned and operated by women farmers were eligible.
- vii. Signature of male relative or spouses were not required before credits applications were approved.
- viii. Literacy was not a requirement for credit acquisition.
- ix. Loan applications were easily and quickly processed.
- x. Since the women self-help savings/credit associations were organized on intra-community basis, location was

convenient and safe for women farmers in the study area.

- xi. The hours of operation of the groups were compatible with the women farmer's' economic activities and domestic obligations.

About 80% of the respondents agreed that loans were fairly distributed to eligible members without bias. Also the study revealed that interest generated from loans were shared as dividends to members at end of the financial year.

The Volume of Loan Borrowed and Repaid by Women Farmers in the Study Area

Within the period of the survey (2005) a total amount of ₦2,032,500 was disbursed with a mean amount of ₦18,147.30. The minimum amount of loan disbursed to women farmers was ₦9,500 while the maximum amount of loan disbursed was ₦45,000. The very low standard deviation of the amount of loan disbursed (1.4) indicated that in women self-help savings/credit associations, loans were fairly and uniformly distributed to eligible members. The mean value of loan (₦18,147.30) disbursed to women farmers in the study area, within the period under review, was relatively substantial to start and manage micro-enterprises, whether on-farm or off-farm. If well managed, this could grow over time to expand the capital base of such micro-enterprises, thereby alleviating the poverty of such women farmers. This result is at variance with the assertion of Mahaja (1999) that micro credit is not an answer to poverty eradication. Micro credit would serve as catalyst in the growth of micro enterprises in Nigeria.

Within the period of the survey study, a total ₦1,681,430 was repaid by the women farmers to self-help savings/credit groups in the study area. The mean amount of loan repaid by women farmers was ₦15,000. The minimum amount of loan repaid was ₦2,375, while the maximum amount of credit repaid was ₦45,000. These findings agreed with the earlier report of Akubuilu et al. (1988) that credit obtained must be repaid according to agreed terms. This is to encourage credit recycling in self help groups. The relatively low standard deviation of amount of loan repaid (1.3), is indicative of the fact that members of women self-help credit associations were relatively homogeneous in their ability to repay loans. Women farmers of relatively the same economic status would be more comfortable to pool their financial resources together under the umbrella of savings\credit associations.

Loan Repayment Performance of Women Farmers

H_0 ; There is no significant difference between the mean amount borrowed and the mean amount repaid.

Table 2. Statistical Difference Between Volume of Loan Borrowed and Amount of Loan Repaid

Variables	Means X	SD	Df	t. cal	t. tab	Remark
Amount borrowed (X ₁)	₦18,147.30	1.4	222	0.49	1.64	Not
Amount Repaid (X ₂)	₦15,000.00	1.3				Significant

(Source: 2005 Survey Data)

From the results of the study, loan repayment percentage was determined to be 82.73% while percentage default was determined to be 17.27%. The statistical difference between the mean value of loan obtained (X₁) and the mean amount of loan repaid (X₂) by women farmers is presented in Table 2.

Further analysis using student's t-test at 5% level of significance, revealed that there is no significant difference between the mean amount borrowed and the mean amount repaid by women farmers in self-help savings/credit groups in the study area.

The implication of these results is that women farmers in self-help savings/credit groups in Bayelsa State, Nigeria, exhibited high loan repayment performance within the period of the survey.

Model of Loan Repayment Performance of Women Farmers

We assumed in the study that loan repayment performance of the women farmers may be influenced by cost of loan supervision, domestic responsibility of women farmers, interest rate charged, house hold size and the prices of farm proceeds.

The results of the multiple regression of the factors that influence loan repayment performance of women farmers in the study area are presented below. An evaluation of the model for loan repayment performance for rural women farmers showed that R² value was 0.854 (85%) while the R² (adj) value was 0.8230 (82%). This indicates that approximately 85% of the variation in the dependent variable (volume of loan repaid), was due to the joint effects of the selected predictor variables that were captured in the model.

Test of Significance of Predictor Variables in the Loan Repayment Model

Hypothesis

H₀₂: The individual predictor variables have no significant effect on the loan repayment performance of women farmers in the study area.

i.e H₀: bs = 0

H₁: bs ≠ 0

In the estimated regression model, an effort was made to identify which of the coefficients of the selected predictor variables provides a statistically significant contribu-

tion to the model. The significance of the variables in the model was evaluated at 1% and 5% levels of significance. The linear function was chosen as the lead equation after trying the semi- log and double- log functions for the loan repayment model. The model is presented below:

$$Yr = 13820 + 0.3350 X_1 - 0.226X_2$$

(1.85)** (1.34)Ns (-1.14)**

$$-346.9X_3 - 581.4X_4 + 613.8X_5 + 0.361X_6$$

(1.70)** (-0.63)** (0.80)* (0.23)**

R² = 85%, R² (adj) = 82%, F = 69.166, DW = 1.51
μ = 1.728

where:

- YR = Volume of loan repaid [Naira]
- X₁ = Cost of loan recovers [Naira]
- X₂ = Women as household heads (dummy)
- X₃ = Interest rate (%)
- X₄ = Household size (Number)
- X₅ = Price of farm proceed [Naira]
- X₆ = Commitment [Dummy]
- μ = Stochastic disturbance term

Note: the figures in parenthesis just beneath the regression coefficient in the lead equation are the corresponding t-ratios

- * = Significant at 1%
- ** = Significant at 5%

All the variables entered the model with the expected signs thus conforming with apriori expectations. Also five explanatory variables were significant in loan repayment model. These parameters relate to: women household headship (X₂), interest rate charged on loan (X₃), household size (X₄), the price of farm proceeds (X₅) and commitment (X₆)

Determinants of Loan Repayment Performance of Women Farmers in Self Help Group

Cost of loan recovery (X₁) was positive in the model but was no a significant determinant of loan repayment performance of women farmers in the study area. This implies that with little or no recovery effort, women farmers in self-help groups have the tendency to repay borrowed funds without being coerced by the awarding association. They believed that the credit association is their own and they are committed to it since they are stake holders in the



association. They indeed demonstrate the spirit of social cohesion. They tend to encourage one another to pay up their outstanding loans. This is the only way micro-credit mobilization can be sustained among women in self-help credit groups in Bayelsa State of Nigeria.

Women as Household Heads (X_2)

This variable was negative in the model. This was in line with apriori expectation that women who assumed headship position in their family compete with the farm enterprises for the scarce financial resources of the farmer. Hence a woman farmer in traditional African setting who caters for domestic chores such as house rent, feeding, children education and health care of family members, might divert agricultural credits to any or all of the households social responsibilities. These elements of household responsibilities could act as sources leakages of farm credits. The consequence is that such women farmers may perform poorly in loan repayment.

Interest Rate (X_3)

True to a priori expectation, the results of the study revealed that interest rate charged had a negative effect on loan repayment performance of women farmers in the study area. The higher the interest rate charged by thrifts/credit associations, the more the difficulties women farmers encountered in repaying borrowed fund and vice versa. As the lending behaviour of financial institutions is influenced by interest rates so also credit repayment of the borrower could be influenced by interest rates. Interest rate, if too high, becomes a burden to the borrower, as it increases the cost of production. Hence interest rate subsidies, in self-help groups would ordinarily stimulate borrowing and the repayment performance of the women farmers in Bayelsa, Nigeria.

Household size (X_4)

Household size of the respondents entered the model with a negative sign which indicates that household size impacts negatively on the loan repayment performance of women farmers in the study area. A female farmer who has a large family size to cater for may divert some of the borrowed fund to unintended purposes for the upkeep of her family. These may be regarded as sources of credit leakage and they tend to negatively affect her loan repayment performance in the rural area.

Price of farm proceeds (X_5)

The price of farm products turned out to be positive and significant in the loan repayment performance model of rural women farmers in Bayelsa State. This result shows that when the prices of farm produce go up, women farmers would be empowered economically. Thus they would have high tendency to repay borrowed fund, both the principal

and the interest charged. Contrarily, when women farmers are victims of the risk of crop failure and price fall, their loan repayment performance could be poor.

Commitment (X_6)

This variable captures the effect of social cohesion in the model. It is positive and significant in the model. This shows that the more the members are committed to the goals of self help groups, the higher is the tendency for loan repayment. This result is in agreement that social cohesion can improve the attitude of members towards group goals. Upton (1996) has earlier postulated that since the group takes collective responsibility for repayment, there is less risk of default. Since members are committed to the group, women farmers tend to be more comfortable in pooling their financial resources under the umbrella of savings and credit scheme. This can enhance sustainable credit recycling system.

Conclusion and recommendation

The determinants of loan repayment performance among women self help groups was investigated in Bayelsa State of Nigeria. The results of the study showed that majority of the women farmers surveyed were married, uneducated, belonged to low income group and had large family size. That notwithstanding, they recorded high loan repayment performance within the period of the survey. The social cohesion of women farmers in self-help credit groups must have positively influenced their ability to repay their loans. These women farmers repaid their loans with little or no supervision.

It was recommended that more self-help credit/savings groups should be established in the study area. Furthermore, commercial banks and other formal credit institutions in Bayelsa State can effectively operate their credit policies by forming linkages with these groups since they are efficient in loan repayment. The sole aim is to reduce poverty and promote a high standard of living. When the reverse happens, then theory of poverty as postulated by Lewis (1967) would be definitely entrenched.

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