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DETERMINANTS OF SAVINGS MOBILIZATION AMONG AGRICULTURAL MICRO CREDIT FINANCE GROUP MEMBERS IN DELTA STATE, NIGERIA

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ABSTRACT

The study was carried out to examine the determinants of savings mobilization among Agricultural micro credit finance group members in Delta State, Nigeria. Forty eight (48) micro credit groups and three hundred (300) micro credit group members were selected randomly from the sample frame and interviewed using structured questionnaires. Descriptive and inferential statistics were employed for the analysis of the data collected. The results of the multiple regression analysis revealed that a significant relationship at 1% level existed between amount of savings mobilized and age of group members, household size, educational level, group duration, distance to credit source, interest charged and member monthly income. It was also observed that 85% of the groups have existed for about 110 years with a mean group savings of N355,500 and an average group size of 13 persons. 92% of the micro credit groups adopted the non-random method of fund allocation with a mean distance traveled to source of credit at 15 kilometers and the mean interest charged on loans was 40 percent.

KEY WORDS

Determinants, savings, mobilization, micro credit, groups.

Agriculture in Nigeria, a developing economy has suffered serious setbacks due to under capitalization. Poor credit disbursement procedures, inadequacy of credit institutions to cater for the needs of the teeming population of farmers and poor loan repayment possibilities among farmers (Eyo and Enimu, 2015). Micro credit is about providing services to the poor who are traditionally not served by the conventional financial institutions (Upton, 1997). The pivotal place of capital in economic growth and development cannot be overemphasized and had been recognized since the pre-Keynsian era till date, because the classical ideology that monopolized economic thinking and policy formulation has stress capital to be so. It is a known fact that nations of the World place tremendous emphasis on capital accumulation by emphasizing the notion of savings that will increase the level of investment in relation to output (Igben and Enimu, 2016).

In agriculture for instance, if farmers are unable to create wealth, their ability to mobilize savings that will guarantee credit which will buffer loan repayment will be strongly hindered; and low capital accumulation can lead to financial exclusion (Deon, 1995). According to Thirlwall (1999), capital formation could be adjudged as the endogenous consequences of growth and also an exogenous cause of growth.

The role of savings is showed in capital accumulation through improved capital assets and the effects it has on the ability of an economy to make more incomes (Angyie, 2005). Savings which is regarded as a catalyst for the accumulation of capital and also a deciding factor of the cost of credit as can be seen from the law of scarcity which says that when the former is low and scare, it becomes costlier to obtain the latter (Rose, 1986). According to the classical view, savings is a major yardstick and determinant of economic growth and development. According to the World Bank (1999), developing countries that attain higher growth rate are the ones that have high savings capacities. Capital mobilized from domestic sources is very fundamental for a country's development not only because it has a low cost but also because it is durable and permanent.

Most domestic savings emanates from the rural areas usually in under-developed countries with high rural population due to the fact that there are greater savings ability and

growth potentials (Thillairajah, 1994). Also in these areas, characterized by unstable economic conditions, there is usually a high propensity to save (Yaron, Benjamin and Piprek, 1997). They further stressed that savings enable a large portion of clients to have access to credit as well as enable rural people and farmers in particular to establish or develop income generating activities and improve on their income level. The merit accruing to savings by the rural people is demonstrated through the various means and ways they used in saving and also by keeping little amount at home for immediate use (Enimu, Igiri and Uduma, 2015). In furtherance of this, when rural peoples' desire and need to save meet a safe, easily reachable avenue to operate, their ability to save and willingness to save and the amounts they will be able to save are considerably substantial.

Consequently, the study aims at establishing the determinants of savings mobilization among micro credit finance group members in Delta State, Nigeria with a view to improve the design and stimulate mobilization of rural savings for economic growth and development. The broad objective of this study is to examine the determinants of savings mobilization among micro credit finance group members in Delta State, Nigeria. The specific objectives include to describe the characteristics of agricultural micro credit finance groups in the study area; examine the operating characteristics of agricultural micro credit finance groups; assess savings mobilizations strategies of agricultural micro credit finance groups and analyze the determinants of savings mobilization among micro credit finance groups.

METHODS OF RESEARCH

Study Area. Delta State is one of the six states that make up the South-South geopolitical zones of Nigeria. The state was formed in August 27, 1991 out of the former Bendel State. The state consists of twenty-five (25) Local Government Areas. Delta State is located between longitude $5^{\circ}00'$ and $6^{\circ}45'E$ and latitude $5^{\circ}00'$ and $6^{\circ}30'N$. It is bounded by Edo State on the north, on the northwest by Ondo State. Anambra State on the east and in the South east by Bayelsa State. On the southern flank is the Bight of Benin which covers approximately 160km^2 of the state's coastline (FOS, 1996). The state is marked by two seasons as a tropical climate. The dry and raining seasons with a dry spell in August commonly referred to as "August Break". The average annual rainfall is about 2667mm in the coastal areas and 1905mm in the northern areas. Rainfall is heaviest in July. Delta State has a high temperature ranging between 29°C and 44°C with an average of 30°C .

The vegetation consists of the mangrove swamp forest along the coastal areas and the thick rain forest in the middle and the Savannah in the north. The 2006 population census puts the population of Delta State at 4,098,391 made up of 2,074,306 males and 2,024,085 females, with a land area of $17,011\text{ km}^2$ (NPC, 2006). Delta State is purposely selected for this study because the state has many micro credit groups in the formal and informal linkage self help programmes sponsored by the Federal/State Government and Non-Governmental Organizations (NGOs) and Corporations.

Sources of Data. Primary and Secondary data were used in the study. Primary data were obtained through a well-structured questionnaire complimented with oral interview by well trained enumerators on the operating and savings mechanics of the micro credit finance groups while secondary data were obtained from their books of accounts and other published and unpublished materials.

Sampling Technique and Data Analysis. A stratified random sampling technique was applied in sample selection. A total of 48 micro credit finance groups and 300 micro credit group members were selected randomly for the study. Data obtained were analyzed using descriptive statistics such as table, frequency distribution, percentage and mean while the multiple linear regression analysis was the inferential statistical tool used.

The Empirical Model. In the regression model used, it was postulated that amount of savings mobilized by micro credit group members (SM) is a function of Age of the respondent (A) in years, household size (H) in number, educational level (E) in years, group duration (G) in years, distance to credit source (D) in kilometers, Interest charged (I) in percentage, sex of respondent (S), monthly income (M) in naira, Religion (R) and ethnicity (C).

Consequently, the mathematical model is expressed as:

$$SM = f(A, H, E, G, D, I, S, M, R, C)$$

The *a priori* expectation is that:

$$SM = b_0 + b_1A - b_2H + b_3E + b_4G - b_5D + b_6I + b_7S + b_8M - b_9R + b_{10}C,$$

Where: b_0 is a constant, $b_1 - b_{10}$ are the parameters.

RESULTS AND DISCUSSION

Characteristics of Agricultural Micro Credit Groups. The various agricultural micro credit groups have different characteristics that can affect their operational and savings mobilization performance.

Table 1 - Characteristics of Micro Credit Groups

VARIABLES	FREQUENCY (n=48)	PERCENTAGE
Group existence (Age) Years:		
1 - 5	26	54.17
6 - 10	15	31.25
11 - 15	4	8.33
Above 16	3	6.25
Mean = 8	Minimum = 2	Maximum = 18
Group Savings Made		
Less than ₦200,000	15	31.25
200,001 - 300,000	23	47.92
300,001 - 400,000	7	14.58
Above 400,001	3	6.25
Mean = 355,500	Minimum = 80,000	Maximum = 520,000
Group Size		
5 - 10	12	25.00
11 - 15	25	52.08
16 - 20	7	14.48
Above 21	4	8.33
Mean = 13	Minimum = 6	Maximum = 24
Method of fund Allocation		
Random	4	8.33
Non-random	44	91.67
Meeting Attendance		
Once a week	23	47.92
Twice a month	18	37.50
Once a month	7	14.58
Distance to credit Source (km)		
1 - 10	27	56.25
11 - 20	13	27.08
21 - 30	5	10.42
Above 31	3	6.25
Mean = 15	Minimum = 1	Maximum = 32
Supervision (No. of Visit)		
1 - 5	16	33.33
6 - 10	23	47.92
11 - 15	6	12.50
Above 16	3	6.25
Mean = 15	Minimum = 1	Maximum = 32
Interest on Loan (%)		
Less than 10	6	12.50
10 - 30	18	37.50
Above 30	24	50.00
Mean = 40	Minimum = 8	Maximum = 70

Source: Field Survey, 2016.

Table 1 presented the characteristics of the groups. The table revealed that 57% of the groups have existed for about 6 - 10 years, while 31% of the groups have existed for more than 10 years. The mean duration of existence was 8 years, while the minimum duration was 2 years and the maximum was 18 years. The table also shows that 31% of the groups had savings less of than ₦200,000 while 48% had saving ranging between ₦200,001 - ₦300,000. Only 21% of the groups had savings above ₦300,001. The means membership strength of the groups was 13 persons with the minimum size of 6 persons and a maximum of 24 persons. While 52% of the groups have membership size of 11 - 15 persons, 25% had a group size of 5 - 10 persons while 23% of the groups had group size of above 15 persons. 92% of the groups observed the non-random method of fund allocation while only 8% of the groups practiced the random method of fund allocation. It therefore implies that majority of the groups uses the non-random method of fund allocation avoiding the serial turn -by-turn fund allocation that may bring about misunderstanding and misinterpretation of information for such groups that do not believe in lotteries which affect performance adversely. The table also indicated that 48% of the groups attends meeting once a week, 37% attend meeting twice a month while 15% of the micro credit groups attends meeting once a month. 56% of the group travel about 1 - 10km to their credit source while 27% of the groups travel about 11 - 20km. 17% of the groups travel distances above 20km to their credit source. On the number of visit paid to the groups by a credit officer, 48% of the micro credit groups had visitation of about 6 - 10 times while 33% had 1 - 5 times. 19% of the groups had visitation above 11 times. The interest on loan was considered and 50% of the groups agreed that their interest rate was above 30%, while 38% had interest rate of 10 - 30 percent and 13% had interest that are less than 10 percent. The rate of interest appears to be higher than that of the commercial banks, but it is lower than the rate charged by money lenders.

Operating Characteristics of Micro Credit Groups. According to table 2, the most popular eligibility criteria for mobilization of savings are been a registered member of the group at 100%, meeting the condition of registration such as having a farm or a trade at 100%. Sincerity and honesty are other criteria that must be assessed before admitting into a group at 88%. The agricultural micro credit groups serve their members in four capacities, namely: mobilization of savings and granting of loans at 100%, mounting education programmes that will enhance economic activities of members at 50%, and attending member's social activities such as marriages/burial/dedication and child naming ceremonies at 94%.

From the table, the most popular loan monitoring strategy is to ensure that loan beneficiaries repay interest on loan during meeting at 100%, while about 98% of the groups encourage presentation of the principal and interest during meeting. The agricultural micro credit groups mobilize internal savings for the running of the activities of the groups. 100% of the micro credit groups stated that their major savings mobilizing activities were, through registration fees, weekly/monthly savings, and fines while 54% uses weekly/monthly dues. 90% of the micro credit groups allow withdrawal of membership with replacement of a capable, honest person while 25% do not allow replacement of member during withdrawal of membership from the group. 46% of the micro credit groups do not allow withdrawal of membership from the groups.

Table 2 also revealed that 100% of the micro credit groups enticed their members to mobilize more savings through access to more loans, while 85% of the groups promise to elevate members to key position in the group if they performed creditably in savings mobilization throughout the year. 67% of micro credit groups base their incentive to better savings mobilization on awards from the micro credit institutions which is usually done at the end of very year. Apart from monitoring and incentives strategies, the groups employ non-financial sanctions. Table 2 showed that 100% of the micro credit groups use suspension from group and report to village/spiritual head as their major sanction for defaulters while 54% uses denial of next loan. Confiscation and selling of properties, demotion from key position held and use of law enforcement agencies had 23%, 17% and 10% respectively.

Table 2: Operating Characteristics of Micro Credit Groups

	Operating Characteristics	Frequency	Percentage
a.	Eligibility Criteria		
	Must register with the group	48	100
	Must have savings with the group	48	100
	Must be honest and sincere to the group	42	88
	Must meet registration conditions	48	100
b.	Group Functions/Activities to Members		
	Give loans to members	48	100
	Settlement of dispute	48	100
	Group educational programmes	24	50
	Attending members social activities	45	94
c.	Monitoring Strategies		
	Payment of Loan Interest during meetings	48	100
	Payment of Principal and interest during meetings	46	96
d.	Group Savings Drive		
	Registration fees	48	100
	Weekly/monthly dues	26	54
	Weekly/monthly savings	48	100
	Fines	48	100
e.	Withdrawal from Group		
	Withdrawal with Replacement	43	90
	Withdrawal without Replacement	12	25
	No withdrawal of Members	22	46
f.	Incentives		
	Access to more Loans	48	100
	Elevation to key position in group	41	85
	Award from MFIs	32	67
g.	Non-Financial Sanctions		
	Suspension from Group	48	100
	Report to Village/Spiritual Heads	48	100
	Denial of next Loan	26	54
	Confiscation and selling of Property	11	23
	Demotion from key position held	8	17
	Arrest by Law enforcement agencies	5	10
	Maximum Responding Unit	48*	

Source: Field Survey, 2016.

Multiple Responses were recorded.

Determinants of Savings Mobilization among Micro Credit Finance Group Members. Multiple regression analysis was applied to examine the socio-economic determinants of amount of savings mobilized among micro credit group members. Seven of the ten determinants included in the model affected the volume of savings mobilized significantly. These parameters include age of members, household size, educational level, group duration, distance to credit source, interest charged and monthly income.

Result shows that the R^2 value of 0.956 means that about 96% of the differences in the volume of savings mobilized was due to the determinants captured in the model. Using a two-tail test at 1% level of significance, the F-computed is 297.95 and F-table is 2.58, since the calculated F is greater than the corresponding table value, we rejected the null hypothesis (H_0 , at $P > 0.01$, $b's = 0$) which states that there is no significant relationship between the selected determinants and the amount of savings mobilized by the group members; and accept the alternative hypothesis.

The result of the regression analysis shows that the coefficient of member's age was significant at one percent and positively related to savings mobilized. This implies that, the higher the age of the group member, the higher the amount of savings mobilized. The result conforms to Olomola (2000) and Eyo, Otu and Sampson (2008). Household size was indirectly related to amount saved and was significant at one percent. The implication is that, the more people there are in a house, the less the house head is likely to save, indicating that if there are many people living under one roof, money which could have been saved will be used to meet other house hold needs like feeding, clothing and health bills.

The coefficient of educational level was significant at one percent and positively related to amount of savings mobilized. This indicates that the higher the educational levels of group members, the higher the amount of savings he/she will be able to mobilized. Igben and Enimu, (2016) had opined that quality education is needed in group formation, management and savings mobilization strategies. In confirmation of *a priori* expectation, duration of group existence which implies the years of experience had a positive relation with amount of savings mobilized and was significant at one percent level. This implies that the higher the duration of group existence, the higher the amount of savings mobilized by the group. This work was in conformity with Eyo (2008) who opined that duration of group existence is a major factor towards group loan administration.

Distance to credit source was significant at one percent and negatively related to amount of savings mobilized. This shows that the longer the distance of the group members to the credit source the lower the amount of savings mobilized. This was in consonance with work done by Enimu, Igiri and Achike (2016) and Okpukpara (2005). The coefficient of interest charged was positively related to savings mobilized and was significant at five percent. It implies that the higher the interest rate on savings the higher the amount of savings made. Household monthly income was significant at one percent and positively related to savings mobilized. The implication is that, the higher the disposable income of the individual, the more willing the individual to save. This result agrees with the observations of Okoroeun (1992), Awosike and Nwoko (1983), who noted that the growth of income and distribution of income are the main determinants of savings. They also found out that because of low level of farm income there is severe limitation on farmer's savings capacity.

CONCLUSION

The study revealed that agricultural micro credit finance group members have high potential to save. The result of the study indicated by the multiple regression analysis showed that age of group members, household size, educational level, group duration, distance to credit source, interest rate charged and household monthly income which are the significant determinants captured have direct relationship with the dependent variable and hence each of them is an important component in determining the amount of savings mobilization among agricultural micro credit group members in the study area. Based on the foregoing therefore, it was recommended that interest rate on savings should be increased to help encourage better mobilization and that micro credit institutions should discourage long distance travelling by encouraging the use of agent and catchment banking system with the deployment of latest technological innovations and gadgets.

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