Effects of Democratization of Group Administration on the Sustainability of Agricultural Micro Credit Groups in Nigeria

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Abstract
Sustainability of micro credit groups in developing economies has been a problem associated with low meeting attendance and loan repayment which culminates in disintegration of the group. The study aimed at documenting effects of democratization of group administration proxied as frequency of meeting schedules/ attendance, which is a measure of interest in the groups, on their sustainability. The study was carried out in Imo State of Nigeria, using two micro finance institutions that were purposely selected and 54 micro credit groups that were randomly selected using stratified sampling from the two micro finance institutions afore selected. Descriptive statistics and multiple regression technique were used in data analysis. Results show that low market prices, short loan duration crop failure and inadequate loan supervision are major problems limiting peer loan repayment. It was also documented that savings mobilization and repayment of the group loans are dependent on democratization process implicit in frequency of meeting attendance. Minimum savings requirement is also directly related to group loan repayment. One recommendation is that groups should be organised with homogenous members to enhance patriotism, solidarity and cohesion.

Introduction
Micro credit group dynamics aimed at sustaining group lending are major features of micro finance in Nigeria. Such actions are based on the concept of social capital due to the gregarious nature of human behaviour (Ohaka et al, 2005). It is important to note that the rising interest in group based activities demonstrates the importance of groups in sustaining development. The Self-Help Group Linkage Banking is the major approach to reach small-scale farmers. This Self-Help Group Linkage programme was launched under the Agricultural Credit Guarantee Scheme Fund (ACGSF) in 1991 and became operational in 1992. Under the programme, farmers are encouraged to form themselves into groups on the basis of a common purpose. They are then encouraged to undertake regular savings, which are deposited in a partner bank of their choice. After operating such savings for six months, they can then apply to the partner bank for a loan. Such groups can be informal or formal (CBN, 2003).

Bank loans are normally in multiples of the balance in their savings account at the time of loan application. So far, banks have been able to approve and disburse four times the balance in the savings accounts of the groups nationwide (CBN, 2003). Under this arrangement, the lending bank holds the group savings as security, which will not be drawn until the loans are fully repaid. The aim of Self-Help Group Linkage Banking is to inculcate the culture of savings and banking in group members as well as enable them to build up resources for financing their farm projects without recourse to bank borrowing in the long run.

Most credit-based NGOs undertake their lending and savings on the principle of Self-Help Groups. Such NGOs include: the Community Development Trust Fund (CDTF) in Lagos State, the Community Women Association of Nigeria (CWAN) in Ondo State, the Live Above Poverty (LAPO) in Edo State, the Farmers' Development Union (FADU) in Oyo Stat, the Women Farmers' Association (WOFAN) in Kano State. Others include Lions Micro Credit Society Nsukka and Peace Development Center in Uyo.

States can identify existing NGOs in their areas or encourage their formation and activities as a means of improving on the provision of farm credit to their citizens (CBN, 2003). In Imo State, Supervised Agricultural Loans Board is the State facility for financing co-operatives / groups. Loans are made available only to state registered co-operatives /groups. Another organization is a development bank specifically the Nigerian Agricultural Co-operative and Rural Development Bank, which is sponsored by the Federal Government of Nigeria. Fadama User Groups also exist in the State and enjoy international sponsorship. Others include the UNDP Micro Start project, the traditional "essusu" groups and informal money lenders. The continued existence of these institutions and groups depends on their maintaining high group morale and cohesion which will depend on maximum meeting attendance and participation in a peaceful atmosphere (Arene, 1990; Tyokever, 2006). This is possible if the administration of such a group is democratic enough to encourage fairness.

Problem Statement

Many development projects in sub Saharan Africa whose sustenance depends on group actions have been marred by easy disintegration of the groups which are supposed to sustain such projects. Categories of projects adversely affected by this disintegration include young farmers' clubs and micro credit schemes involving group lending. This is one of the reasons why group based financial transaction is still a grey area in many developing economics despite evidence of its success in many other third world countries. Another major limitation to availability and revolution of fund among micro credit groups is poor loan repayment even though minimum deposit has been a compulsory requirement. Ohaka et al. (2005) demonstrated that initial screening of members with respect to loan application has not guaranteed effective loan repayment. This shows the need to document determinants of other aspects of group dynamics especially those that encourage group cohesion and their impact on peer loan repayment in order to proffer sound solutions to problems of loan repayment in group based financial transactions. Many studies involving group based financial transactions in Nigeria have not documented factors that help in building group cohesion and its comparative impact with other collateral substitutes on repayment. For instance the study by Olomola (2002) and Ohaka et al. (2005) concentrated on the relationship between social capital and group peer loan repayment; that by Izugbara (2004) was an impact study of micro finance on the feminine gender.

Another important concept in group dynamics is intra group conflict. Jeffery et al. (2002) reported that researchers have distinguished one particularly important type of intra group conflict - task conflict. Task conflict is made up of conflicts about what to do and how to do it. It covers conflicts arising from setting of priorities, goals, alternatives and appropriate choices of action. In order to obtain optimal decisions arising from the task conflict group members need to meet regularly but research has not demonstrated how attendance at regular meeting which is a measure of democratization process can influence group cohesion and performance. Since the formation of groups is not an easy social endeavour, information is needed to carefully choose variables that will aid groups' sustainability. The dichotomy among nominal, passive and active partners appears to be of good use in partnership organizations. But with respect to group based financial transactions, research has not shown the superiority of active members above non active ones because in a micro credit group, members may choose to pay off the minimum savings requirement at once or in a few installments without getting actively involved in other group affairs including absence in meetings. Can this action psychologically affect other members such that sustainability becomes a problem?

Communication is the lifeblood of any society. Group members are people who regularly meet together for a common purpose. Meetings serve as an appropriate channel for effective and efficient dissemination of information among group members as well as plans for how to solve problems. Democratization of group activities via regularity of meetings and attendance can increase intimacy and cohesiveness of group members if leaders and members are transparent (Arene, 1990; Tyokever, 2006). Hence Gregory and Richard (1987) aptly noted that one of the important variables in determining group effectiveness is task interdependence. Regularity of meetings and attendance afford group members the opportunity to remember their coinsurance and joint liability with respect to the group loan as well as to meditate on the fact that the success of the group depends on all of them as individuals due to the concept of joint liability. The above concept appears to be only theoretical without empirical validation because research on group based financial transaction has not examined the effects of democratization of group administration on the sustainability of peer loan arrangements in terms of savings mobilization and loan repayment. This study aimed at filling such a gap.

Objectives: The objective of this study is to determine the effects of meeting schedules and attendance - a measure of democratization of group administration – on the sustainability of group performance in terms of savings mobilization and loan repayment as well as proffer solutions for improving group cohesion.

The null hypothesis that guided the study is that democratization of group administration does not affect group performance.

Research Methodology

The Study Area

This study was conducted in Imo State of Nigeria which was purposely selected to provide empirical information on formal agricultural micro-credit groups because the State instituted and finances supervised Agricultural Loans Board which provides credit to farmers in the State. It also has many branches of Nigerian Agricultural Co-operative and Rural Development Bank (Imo ADP, 1998; FACU, 1998). The main strategy used in these programmes is group lending.

Sampling Procedure: Purposive and stratified random sampling procedures were used. Stage 1 involved purposive selection of the three agricultural zones namely Okigwe zone, Owerri zone and Orlu zone. Stage 2 involved selection of nine local governments from the agricultural zones namely Okigwe, Isiala Mbano and Ihitte/Uboma, from Okigwe zone, Ngor Okpala, Ikeduru, and Ohaji/Egbema, from Owerri zone as well as Orsu, Njaba and Ideato North, from Orlu zone Stage 3 involved selections of two micro finance institutions (MFIs) namely Supervised Agricultural Loans Board and Nigerian Agricultural Cooperative and Rural Development Bank were also selected. Theses stages ensured maximum coverage of the State and large sampling size for randomization. Stage 4 involved Stratified random sampling, used to select fifty four agricultural micro credit groups financed by the two MFIs as part of the unit of analyses. This means that each of the two institutions across the three zones gives twenty seven agricultural micro credit groups. Stage 5 involved purposive selection of ten official/supervisors from each of the two institutions, in order to identify problems of micro credit groups from the views of the financing institutions, because they are co-ordinators of the groups. This gives a total of twenty respondents.

Data Collection: Primary and secondary data were collected for the study. Primary data were obtained through the use of two sets of structured questionnaires. One set was administered to the members of the agricultural micro credit groups and the other on staff of the institutions that are involved in groups' micro credit services that were selected for the study. Data collected include information on fund size, group size, method of fund allocation, membership composition in terms of gender, volume of savings, repayment performance, regularity of meetings, attendance at meetings, age, educational status, sex, employment status, residency and ethnicity of group members as well as functions and problems of the groups.

Sources of secondary data include National Population Commission Owerri, Imo ADP, Imo State Ministry of Agriculture, Imo State Supervised Agricultural Loans Board and NACRDB.

Data Analyses: Descriptive statistics and regression techniques were used to analyse the data and report findings. The relationship between democratization process and key components of group performance are specified as follows:

Effects of democratization process on savings mobilization equation

$Sm = f(X_1, X_2)$ …………………………… …………….……. (1)

Effects of democratization process on group loan repayment equation

$Lr = f(X_1, X_2)$………………..……………… ………………….(2)

Effects of democratization process and minimum savings deposit on loan repayment equation

$Lr = f(X_1, X_2\ Sm)$…………………………… ……………….(3)

Measurement of the Variables

Sm = Savings mobilization: It is the average savings mobilized by individual members of a group in order to access group loan.

Lr = Repayment rate: It refers to the average percentage of loan repaid by each group.

X_1 = Attendance at regular meetings: It is measured as the average percentage of regular meetings actually attended by members of each group to that held during the loan cycle.

X_2 = Meetings schedules per month: It is measured as the number of meetings normally scheduled per month.

Results and Discussions

Descriptive Statistics Results

Attendance at Regular Meetings: This is used to describe the percentage of meeting attendance by group members. The values 50.0, 98.0, 74.5 and 11.4 are the minimum, maximum, mean and standard deviation respectively of the percentage meeting attendance by members of the micro credit groups. The frequency distribution of the groups' according to regularity of meetings attendance is illustrated below (see figure 1)

Meeting attendance of the group members is impressive because up to seventy four percent of the members of the micro credit groups attended at least seventy percent of their meetings and less than ten percent of the members have fifty percent participation in meeting attendance. This implies that information can cheaply be disseminated to group members.

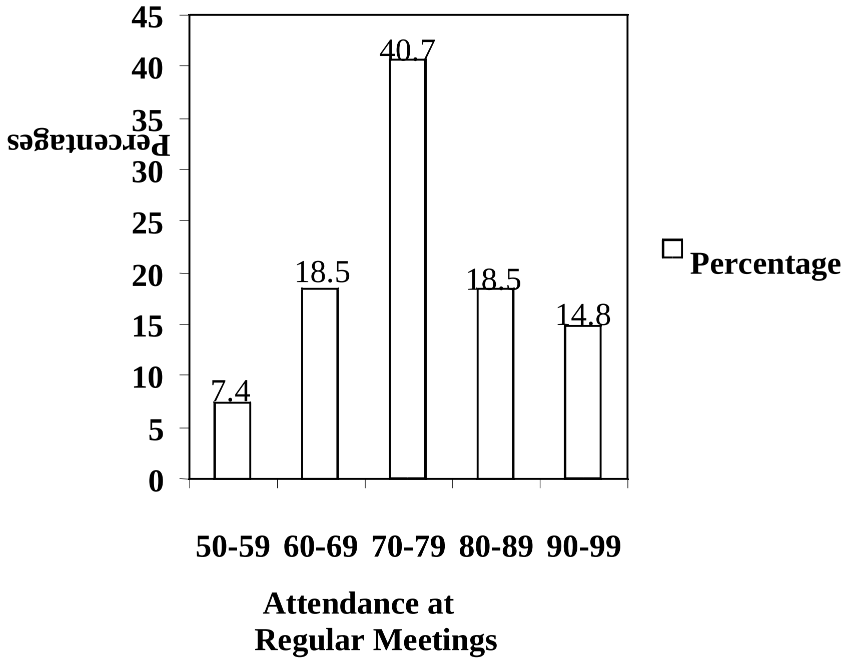

Figure 1: A Bar Chart showing Frequency Distribution of the Micro Credit Groups according to their average Attendance at Regular Meetings
Source: Field Data, 2005

Meeting Schedules per Month
In terms of regular meeting schedules, the values 1, 2, 1.33, and 0.48 are minimum, maximum, mean and standard deviation of frequency of meeting schedules per month of the groups. The majority of the micro credit groups hold their meetings once a month as can be seen from figure 2.

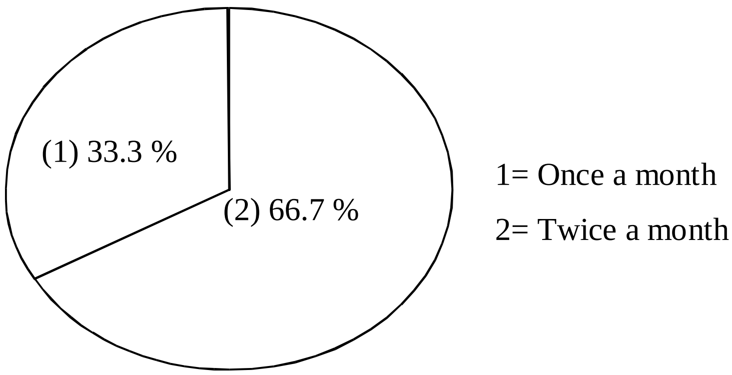

Figure 2: A Pie Chart showing Distribution of the Groups according to their Meeting Schedules

Source: Field Data, 2005

Problems Encountered in Repayment of Group Loans

75% and 60% of the officers opined that embezzlement of fund and misuse of loans are among the problems associated with repayment of loans; while 70%, 80% and 90% identified death of debtor, crop failure and inadequate loan supervision as also part of the problem. All of the officials identified high default rate as the major problem. From the demand side, 70%, 74% and 81% of the group identified high interest, insufficient funding and short loan duration respectively as part of the problem; while 90%, 74% and 55% opined that misuse of loan, low market prices, crop failure and late disbursement of loan are also part of the problems of loan repayment (see Table 1)

Late application of loan can aid misuse of agricultural loans because many small scale farmers are practising rain fed agriculture. Short loan duration does not favour livestock farming and planting of permanent crops. This may lead farmers to concentrate on cultivation of arable crops and such intensification can lead to crop failure if not well managed. The need for micro finance institutions to encourage small scale farmers to take up insurance policy against disintegration of the groups, croup failure and death of debtors with Nigerian Agricultural Insurance Company is underscored by the fact that these problems are among the ones encountered by the officials in repayment of peer loan. (See Table 1).

Table 1: A multivariate table showing frequency distribution of the officials and micro credit groups according to Problems Noted in Repayment of Group Loans

Problems Encountered in Repayment of Group Loans *					
From Officials *	**Frequency**	**Percentage**	**From Group Leaders ***	**Frequency**	**Percentage**
Embezzlement of peer fund/ Corruption	15	75.0	High interest rate	38	70.4
Communal clashes/ Group disintegration	5	25.0	Short loan duration	44	81.5
Provision of False information by group leaders/ Members	10	50.0	Insufficient funding of projects	40	74.1
High default /delinquency rate	20	100.0	Late disbursement of loan	30	55.6
Crop failure	16	80.0	Low market prices	40	74.1
Inadequate loan supervision	18	90.0	Crop failure	32	59.3
Misuse of loan	14	70.0	Misuse of loan	50	92.6
Death of debtor	12	60.0	Death of debtor	15	27.8
Maximum Responding Unit	**20**		Maximum Responding Unit	**54**	

Source: Field Data, 2005, * multiple response recorded

Regression analysis results

Estimation of the effects of democratization of group administration on savings mobilization

$Sm = -41374.5 + 689.554\ X_1^{*} + 5982.301\ X_2^{***}$

Se = 11562.023 149.746 3548.779

t = -3.578 4.667 1.686

Se= standard error, t= t- statistics, F- Ratio =13.463, degree of freedom = 53, $R^2 = 0.346$

*= Significant at 1% probability level

*** =Significant at 10% probability level.

Source: Computed from field data 2005

Explanatory of the variables are:

Attendance at regular meetings (X_1): It is measured as the average percentage of regular meetings actually attended by members of each group to that held during the loan cycle. Its coefficient is 6.89.554 and t value is 4.667 which is significant at one percent probability level. A direct relationship exists between attendance at regular meetings and savings mobilization.
Meetings schedules per month (X_2): It is measured as the number of meetings normally scheduled per month. Its coefficient is 5982.301 and its t value is 1.686 which is significant at ten percent probability level. A positive relationship also exists between meeting schedules and savings. This model underscores the fact that democratization process in group administration is helpful to group performance in terms of savings mobilization.

Estimation of the effects of democratization of group administration on loan repayment

$Lr = 12.022 + 0.902\ X_1^{*} - 0.131\ X_2$

Se= 9.931 0.127 3.048

t=1.211 7.108 -0.043

Se= standard error, t= t- statistics, F- Ratio =25.605, degree of freedom = 53, R^2 = 0.501

*= Significant at 1% probability level

Source: Computed from field data 2005

Explanatory variables are :

Attendance at regular meetings(X_1): Its coefficient is 0.902 and its t value is 7.108 which is significant at one percent probability level. It has a direct relationship with loan repayment.

Meetings schedules per month (X_2): It is not significant.

Estimation of the overall relationship between repayment, savings mobilization and Attendance at Regular Meetings using semi log Functional Form

$Lr = -199.005^{*} + 56.817 \ln X_1^{*} + l3.573 \ln X_3^{***}$

SE = 37.377 9.825 1.901

t = -5.324 5.783 1.880

R^2=0.542, F-Ratio=30.221* , SE=Standard Error, t= t – statistics, degree of freedom = 53

*= Significant at 1% probability level

*** =Significant at 10% probability level.

Source: Computed from field data 2005

The explanatory variables are:

Attendance at Regular meetings (X_1): This is directly related to repayment at one percent probability level. Its coefficient is 56.817. The average attendance at regular meetings is 74.5%. Regularity of meeting attendance indicates interest in the group and this could have a positive psychological effect on other group members leading to increased group cohesion. Besides attendance at regular meetings provides an avenue to interact with others and gain new production technologies. Thus management efficiency of members that attend meetings regularly can be higher than those who do not. This increased production can be expected to impact positively on repayment as the model defines.

Savings Mobilization (Sm): This is directly related to repayment at ten percent probability level. Its coefficient is 3.573. But the average savings mobilization of the groups is ₦17973.67 while the average fund size is ₦52481.48. As noted earlier the degree of savings mobilization is a measure of owner's equity in the project financed, so the higher the owner's equity the lower the case of mismanagement and the higher the expected repayment.

Summary and Recommendations for Policy

Majority of the groups meet once a month. Problems associated with repayment of loans from the supply side (officers) are: embezzlement of fund, crop failure, provision of false information, inadequate loan supervision, and group disintegration. On the other hand, group members are of the opinion that late disbursement of loan, short loan duration period, high interest rate, misuse of loans, low market prices and insufficient funding are the problems limiting peer loan repayment. Regression results show that meeting attendance and meetings schedules impacted on savings mobilization while minimum savings requirement and meeting attendance also had positively affected loan repayment. It thus demonstrates that attendance at regular meeting should be taken seriously and should be exploited to enhance savings and repayment. Since micro-credit beneficiaries can mobilize very limited fund even though it significantly affects payment, regularity at meeting helps to sustain the group interest which positively impacted on repayment. Such democratization of group administration can help to sustain micro credit groups.

Consequently the following recommendations are made: (1) Democratization of group administration should be encouraged through meeting schedules and attendance since it has positive impact on group sustainability. (2) Attendance at regular meetings should be taken seriously and should be exploited to enhance sustainability of micro-credit beneficiaries in terms of repayment and savings mobilization which also improves loan repayment. (3) Groups should be organized with homogeneous members to enhance patriotism, solidarity and cohesion. If groups are organised with homogeneous members, the potential for default / delinquency is low and the chance that the group will stay together over time is high. Membership homogeneity can also reduce information problems. Members can be homogeneous in age, gender, educational attainment, enterprise, residency, religion, and ethnicity. However, care must be taken to avoid two problems that are likely to arise. First, is the risk of crowding out in group services due to the homogeneity in members' preference on account of high covariance in the demand for financial services? Second, is the possibility for homogeneity to be associated with high delinquency and default rates due to similarity in enterprise (occupation) and covariance in income flows? This is because a large covariance in enterprise and in income flows can be adverse to a group in the event of enterprise-specific shock which affects many members simultaneously. Therefore, care must be taken by implementers of this policy to identify which of the social and economic characteristics will be homogeneous or heterogeneous in order to avoid or mitigate such problems.

References

Arene, C. J. (1990) "The Role of Community Leadership in Rural Development Programmes in Nigeria" *Development and Peace* No 2.

CBN (2003): Central Bank of Nigeria Reap Bountifully Through the Agricultural Credit Guarantee scheme fund" CBN report on ACGFS. www.centralbankofnigeria

Fergus, L. (2003). "Community and livelihoods in remote rural areas of Ghana: How small scale farmers sustained collective action". *Community Development Journal –An international forum.* Vol. 38, No. 4, pp. 323-331.

FACU (1988). Federal Agricultural Coordinating Unit Abuja: Nigeria.

Gregory, P.S. and A. G., Richard (1987) "Group Effectiveness: What Really Matters "*Sloan Management Review*.(Massachusetts inst. of tech.)_ Spring, Vol. 28, No. 3, Pp 25-31

Izugbara, C.O. (2004). "Gendered Micro-lending Schemes and Sustainable Women's Empowerment in Nigeria". *Community Development Journal - An International Forum,* Vol. 39, No. 1, pp. 72-83

Imo ADP (1998). *Imo State Agricultural Development Programme: Report,* Owerri Nigeria

Mkpado, M. (2006). Effects of Group Design Characteristics on the Performance of Agricultural Micro-Credit Groups in Imo State, Nigeria. *Unpublished M.Sc. Dissertation,* Department of Agricultural Economics, University of Nigeria, Nsukka.

Ohaka, C. C., C. J. Arene and M. Mkpado (2005) "Effects of Social Capital on the Performance of Formal Agricultural Micro-Credit Groups in Imo State, Nigeria" Proceedings at the 19th Annual Conference of Farm Management Association of Nigeria From 18th – 20th pp 287-301

Olomola, A.S. (2002). Social Capital, Micro-finance Group Performance and Poverty Implication in Nigeria. Ibadan: *National Institute for Social and Environmental Research (NISER).*

Tyokever, M. (2006) " Evaluation of the Effectiveness of Community Leaders as Effective Loan Guarantors for Small Scale Farmers in Benue State, Nigeria". *Unpublished M.Sc. Dissertation* Department of Agricultural Economics University of Nigeria, Nsukka.