Full Length Research Paper

Effects of Membership Homogeneity on the Design and performance of Formal Agricultural Micro Credit Finance Groups in Delta State, Nigeria.

Enimu Solomon and Ohen S. B.

Department of Agricultural Economics, University of Calabar, Nigeria.

Corresponding Author's E-mail: solomonenimu@gmail.com

The study was carried out to assess the effects of membership homogeneity on the design and performance of formal agricultural micro-credit finance groups in Delta state, Nigeria. Specifically, the study describe the socio-economic characteristics of group officials, examine membership homogeneity and group design elements of the micro credit groups and determine the effects of homogeneity variables on the amount of credit received by the groups. Sources of data were primary and secondary, structured questionnaires were used to interview respondents to generate primary data, while secondary data were sourced from relevant publications. Purposive and multi-stage random sampling techniques were adopted for the study. The tools used for data analysis included percentages, frequency distribution, mean and the multiple regression analysis. The result showed that agricultural micro credit groups were homogenous in certain membership socio-economic characteristics but heterogeneous in some others. The result of the regression analysis revealed that amount of credit received by micro credit groups were significantly affected by membership size, length of stay in group, proportion of credit repaid, amount of savings made, interest charged, age, household income, educational level, household size, distance, gender and ethnicity. Based on the findings, it was recommended that micro credit groups should be relatively homogenous in both socio-economic characteristics to improve their performance for sustainable financial inclusion.

Keywords: Membership, Homogeneity, Design, Formal, Micro Credit, Finance groups.

INTRODUCTION

In Nigeria, like most of the third World countries, one of the major problem confronting the agricultural sector is poor access to adequate capital despite its contribution to the economic growth and development of the country. Micro Credit is one of the major tools used to extend credit with a view to alleviating poverty of many small holder farmers (Mkpado, Idu and Arene, 2010). In an era of global economic liberalization, micro credit is widely viewed as an intervention that address important deficiencies of financial markets in terms of serving specific needs of the poor, by providing them with credit without collateral (Stiglitz and Weiss, 1981).

The provision of micro credit services improves the latent capacity of the poor for entrepreneurship which enables them to be more self-reliant, increase in employment opportunities, enhance household income and create wealth (Enimu, Igiri and Achike, 2016).

Over the years, micro credit providers have developed strategies that sought borrowers to work together in small peer groups and these peer groups are also required by the lenders to assume responsibility for the repayment of their members loan in time of default, consequently, future credits to all members (Soren, 2002). The joint liability systems employed by peer

groups can improve financial sustainability, by inducing group members to use their mutual interest, familiarity and understanding in performing roles such as screening of fellow borrowers to retain credit worthiness, monitoring their use of borrowed funds and pressuring them to repay as well as providing mutual insurance (Ghatak, 1999; Eyo, Otu and Sampson, 2008).

The nature of membership composition is thus important for improved performance of groups, not only in terms of savings mobilization but also in terms of loan repayment and building up social cohesion through attendance at regular meetings (Olomola, 2000). Groups tends to be more successful when members share one or several socio-economic conditions and are therefore relatively homogenous (Olomola, 2002). Devereux and fishe (1993) wrote that in the formation of membership group, some members may misrepresent their economic status, claiming what they are not, thereby resulting in the formation of groups with non-homogenous members. Consequently, the potential for default delinquency is high and the chance that the group will remain together over time becomes remote. Group homogeneity is therefore a group quality, highly valued by members themselves.

Homogeneity in membership social characteristics is a desirable attribute of micro credit groups, particularly those that provide financial services to members. This is particularly so because, it influences information flow among members of the groups. In fact, accessing the available information and interpreting its implications is easier with individuals who have relatively better degree of homogeneity in membership characteristic (Slover, 1991). It is believed that homogeneity in membership characteristics engender mutual trust, enhance group cohesion and the feeling which make group members to show loyalty in undertaking group activities and helps mollify the problem of information asymmetry (Oludimu, 1983, Nagaraja, Meyer and Graham 1999; Ghatak and Guinane, 1998).

In recent years Government and Non-Governmental Organizations (NGOs) are devoting more energy into the use of micro credit group approach to lending, with the aim of meeting the financial inclusion vision 2020 target set by the Central Bank of Nigeria. Notwithstanding the use of this approach, the fears of loan defaults and breaking up of groups within their early years of formation still persist. As if this was not enough challenge, other negative and encumbering circumstances such as heterogeneity, information asymmetry and moral hazards have all strongly conspired to worsen an already glaringly bad and seemingly retrievable comatose situation. The need therefore to examine the nature of membership homogeneity and how it impacts on the design and performance of agricultural micro credit finance groups is apt.

Objective of the Study

The main objective of this study is to examine the effects of membership homogeneity on the design and performance of formal agricultural micro credit finance groups in Delta State, Nigeria. The specific objectives are to:

• describe the socio-economic characteristics of the group official members,
• assess homogeneous characteristics of agricultural micro credit finance group members,
• determine the effects of membership homogeneity variables on the amount of credit received by the micro credit finance groups, and
• examine the policy implication based on the study.

Theoretical Framework

The theoretical framework adopted for the paper included the joint liability lending theory and the transaction cost based theory that attempts to explain group lending and small holder farmer's financial system.

(a)   **Joint Liability lending Theory:** The joint liability theory explains how joint liability makes borrowers to behave predictably. This theory emphasize that joint liability is effective in solving problem of adverse selection, moral hazard, auditing cost and enforcement of loan contracts, commonly encountered by formal finance groups.   The success of the joint liability lending theory is affirm on the ground that peer pressure, social capital help support credit contracts, it minimize the cost of transaction that is heavy to people seeking to take meager fund or credits and the notion from economics of information and contracts by depending on information gathered among themselves through the social capital inherent in them and can help ascertain, risk of potential borrowers (Adverse Selection), insure using the loan properly and able to repay (moral hazard), methods to force borrower to repay (enforcement), learn how project performed in case cannot repay (auditing cost) (Ghatak and Guinane, 1999, Eyo, Otu and Sampson, 2008).

The join liability lending theory posit that group members likely perform higher than conventional bankers because there is a mutual understanding by members of the same community, the bank operating in the rural areas find it difficult to apply financial sanctions against poor people but the people who are neighbours can impose non-financial sanctions and institution may give reward for the poor people to give them information concerning their neighbours and apply financial sanctions to delinquent borrowers (Chen, Ravallion and Sangraula, 2010). Joint liability lending theory posit the

relationship between members of the group and their performance in terms of selection of group members to reduce the problem of adverse selection, enforcement of loan obligations due to moral bands, and increase performance as a result of enforcement, monitoring and peer pressure. (Stiglitz, 1990, Adam, 1990). Joint liability implies that the group members have a better understanding of their selves to enforce relevant social norms on default members (Igben and Enimu, 2016).

On the lender's side the risk of default (the possibility that the borrower will not pay as promised) can be reduced through joint liability and associated procedures of risk pooling and peer pressure among members. With mandatory joint liability, membership homogeneity has shown its relevance for efficient group insurance and supervision of loan utilization (Huppi and Feder, 1990). If the group is heterogenous joint liability can face a number of weaknesses which include co-ordination drawbacks and the problem of free riders that are always available in matter of organization as well as moral hazard behavior among members that will make minimization of default risk unattainable. On the side of the borrower, joint liability is also a risk-reducing measure as it encourages risk-pooling or co-insurance. It allows that loans of members that are unable to pay are settled by those whose project yields are very high in return for those projects that are less successful (Ghatak and Guinane, 1999, Olomola, 2002). Therefore, there is also the possibility that a member which is successful can likely default in his loan repayment as a result of the burden of paying other members' loan. However, if social ties among members are sufficiently strong, there is a positive effect from the activity due to the fact that a member that default willfully will receive punishments from both the group members and the lending institutions.

(b) **Transaction Cost Based Theory:** The transaction cost-based theory emphasize that coordinating lenders dealing with group borrowers can minimize loan processing, screening and collection cost provided the enterprise that the fund is to be injected are simple and similar in characteristics, time path of returns and locations (Eyo, 2002). According to Ghatak and Guinane (1998), it is cheaper and more convenient to administer a group loan than to give loan to individual borrowers.

Moreover, there is an element of social reciprocity in the mechanism of joint liability. If the group is homogenous, members are more likely to understand that one good turn deserves another, in the sense that if a member repays the loan of a partner today the gesture will be reciprocated tomorrow. Social reciprocity plays an insurance role (Besley and Coate, 1995) and can function effectively as a risk-reducing measure in a socially homogenous group. In other words, group performance is apt to be enhanced through the minimization of idiosyncratic risk when borrowers are

faced with mandatory joint liability. The information advantage inherent in a homogenous group can also assist borrowers in fulfilling their repayment obligation. For instance, price and market information can flow better to reduce marketing and income uncertainties and can therefore minimize idiosyncratic risk of group members.

RESEARCH METHODOLOGY

(i)   **Study Area:** The study was carried out in Delta State, Nigeria. Delta State is in the South-South of Nigeria and one of the 36 states constituting the Nigeria federation. The state was formed in August 27, 1991 out of the former Bendel State. The state consist twenty-five (25) Local Government Areas (Enimu, Igiri and Uduma, 2015).

Delta State is located between longitude 5^0 00^1 and $6^0 45^1$E and latitude $5^0 00^1$ and $6^0 30^1$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 its southern flank is the Bight of Benin, which covers approximately 160 kilometers of the state's coastline (FOS, 1996). The state is marked by two seasons as a tropical climate: the dry and raining seasons. The dry season occurs between November and April, while the raining season begins in April and last till October. There exists a brief 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 29^0C and 44^0C with an average of 30^0C (Delta State main fact, 2015).

The vegetation consists of the mangrove swamp forest along the coastal areas and thick rain forest in the middle and the Savannah in the north. The soil is basically sandy loam, which favour a wide variety of agricultural activities including crops and livestock production. 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 square kilometers (NPC, 2006). Delta State is purposely selected for this study because the state has many agricultural micro credit finance groups in the formal and informal linkage self-help programmes

(ii)   **Sampling Procedure:** To make for a good coverage of respondents in this study, purposive and multi-stage random sampling techniques were adopted for the study.

Stage 1: A random sampling of twenty-five micro finance institutions was done with the list of micro finance institutions provided in the state ministry of finance. This gives a total of twenty five (25) microfinance institutions.

Stage 2: In each of the twenty-five (25) micro-finance institutions, two (2) groups were randomly selected using the list provided by the microfinance institutions. This gave a total of fifty (50) micro credit groups.

Stage 3: this stage involved the random selection of six (6) members each from the micro credit groups to investigate the problem and management of the groups. This gave a total of three hundred (300) micro credit group borrowers.

Stage 4: One executive member (chairperson or Secretary) of each micro credit group was selected and interviewed.

Stage 5: A senior staff of each of the micro finance institution was also selected and interviewed.

(iii)   **Sources of Data and Data Analysis:** Primary and Secondary data were used in the study. Primary data were obtained through in-depth interview using well structured questionnaires while secondary data were collected from statements of account of groups. Data obtained were analyzed using tables, frequency distribution, percentages, mean and the multiple regression analytical technique.

The Empirical Model: In the regression model used, it was posited that the amount of credit received by group members (CR) is a function of membership size (M) in number, duration of group existence (D) in years, proportion of credit repaid (P) in percentage, amount of savings made (S) in naira, interest charged (I) in percentage, age of respondents (A) in years, household income (H) in naira, educational level (E) in years, household size (HS) in number, distance to credit source (C) in kilometer, while gender (G), religion (R) and ethnicity (ET) been dummy.

Consequently, the mathematical model is expressed as:

$$CR = f (M,D,P,S,I,A,H,E,HS,C,G,R,ET)$$

The *a priori* expectation is that,

$$CR = b_0 + b_1M + b_2D + b_3P + b_4S - b_5I + b_6A + b_7H + b_8E + b_9HS - b_{10}C \pm b_{11}G + b_{12}R + b_{13}ET$$

Where b_0 is a constant and $b_1 - _{13}$ are the parameters.

RESULTS AND DISCUSSION

(a)   Socio-Economic characteristics of Group Officials

Table 1 revealed that 58% of the group officials have spent 6 – 10 years with the group while 33% have spent above 10 years. 66% of the official respondents were the secretary to the group while 34% of the respondents were the chairman of the micro credit groups. The result of the study also shows that 58% of the group officials have households size ranging between 6 – 10 persons while 29% had 1 – 5 persons and 19% had above 10 persons. 90% of the official respondents were females while 10% were males. 71%

of the official respondents were indigene of the place the group is domicile while 29% of the group official were non-indigenes. Based on the age of group official, 54% of the group officials were age between 40 – 49 years while 23% of the official respondents were aged 30 – 39 years. The age groups of above 50 years and 20 – 29 years had 21% and 2% respectively. 81% of the group officials were married while 15% and 4% were divorced/widow and single respectively. Marital status is a social variable that can be used to classify level of responsibility or dependability, while most married couples can be viewed as responsible, most single individuals are not. On the educational qualification of group officials, 50% had completed NCE/OND, 27% had HND/BISC while 17% had completed secondary school. Those with postgraduate degrees (M.SC) were 4% and only 2% had primary education. 65% of the group official had farming and trading as their occupation, while 19% had farming only and 17% had farming and artisanal as their major occupation. The mean annual income of the group officials was ₦420,000 with a minimum annual income of ₦150,000 and a maximum annual income of ₦550,000. The various socio-economic characteristics of the group officials were very crucial in the study because, it could influence the group savings, volume of loan negatively or positively.

(b)   **Homogeneity Characteristics of Agricultural Micro Credit Finance Groups:** The homogeneity index adopted for the study was that, if any of the homogeneity variables had 70% of the members of a group in it, then the group is said to be homogenous in that socio-economic characteristics while the remaining 30% can be recorded as zero or otherwise showing heterogeneity. The existence of homogeneity presupposes that there is a high concentration of the values of each variable in a particular group. Indeed, if all values of each variable are highly concentrated, the point of concentration is most likely to be the mean. (Mkpado, Idu and Arene, 2010). Thus the variables are obtained for all members of a particular group and their means computed for inclusion in the analysis which is performed on group basis.

Homogeneity in membership of agricultural micro credit groups can be expressed in terms of gender, ethnicity, religion, marital status, age, household size and educational level and other variables that stand to foster social ties and moral bands among members of the groups. Table 2 revealed that 89.58% of the groups are gender sensitive due to the fact that 72.91% are homogeneously female and 16.67% of the groups are homogeneously male with only 10.42% of the groups that are heterogeneous in relation to gender. 81.25% of the micro credit groups are formed from members of the same ethnic groups while 18.25% are made up of mixed ethnic nationalities. The majority 81.25% of the group belonging to the same ethnic groups confirm that the groups are homogenous in ethnicity.

Table 1: Distribution of group Officials Socio-Economic Characteristics

Index	Frequency (n=48)	Percentage
Years Spent in Group		
1 – 5	4	8.33
6 – 10	28	58.33
Above 10	16	33.33
Mean = 8	**Minimum = 4**	**Maximum = 12**
Position Held		
Chairman	17	35.41
Secretary	31	64.58
Gender		
Male	5	10.41
Female	43	89.58
Residential Status		
Indigene	34	70.83
Non-Indigene	14	29.16
Age		
20 – 29	1	2.08
30 – 39	11	22.91
40 – 49	26	54.16
Above 50	10	20.83
Mean = 41	**Minimum = 28**	**Maximum = 61**
Marital Status		
Single	2	4.16
Married	39	81.25
Divorced/Widow	7	14.58
Educational Qualification		
Primary	1	2.08
Secondary	8	16.66
NCE/OND	24	50.00
HND/B.SC	13	27.08
M.SC	8	4.16
Occupation		
Farming Only	9	18.75
Farming Plus Trading	31	64.58
Farming Plus Artisanal	8	16.66
Annual Income (₦)		
Less than ₦200,00	1	2.08
200,001 – 300,000	6	12.50
300,001 – 300,000	15	31.25
400,001 – 500,000	21	43.75
Above, 500,001	5	10.41
Mean = 420,000	**Minimum = 150,000**	**Maximum = 550,000**
Household Size		
1 – 5	14	3.82
6 – 10	28	58.33
Above 10	9	39.58
Mean = 8	**Minimum = 3**	**Maximum = 24**

Source: Field Survey data, 2016.

Table 2: Membership Homogeneity Elements of Agricultural Micro Credit Groups

Index	Frequency (n=48)	Percentage
Gender		
All Male	35	72.61
All Female	8	16.67
Both Male and Female	5	10.42
Ethnicity		
The same ethnic group	39	81.25
Mixed ethnic group	9	18.75
Religion		
All Christians/Same Religion	42	87.50
Mixed Religion	6	12.50
Marital Status		
All Single	18	37.50
All Married	23	47.91
Mixed Status	7	14.58
Household Size		
1 – 10	47	97.91
Above 10	11	22.92
Educational Level		
Literates	47	96.91
Illiterates	10	20.83

Source: Field Survey Data, 2016.

The table also showed that 87.50% of the groups belong to the same religion while 12.50% of the groups are made of mixed religious members. The majority 87.50% of the group having members that belong to the same religion confirm that the groups are religiously homogenous. 97.92% of the groups had household sizes ranging between 6 – 10 persons while 22.92% of the groups had household sizes of above 10 persons. From the study, it was clear that no group was homogenous in terms of household size, since groups are made up of individuals with different household size making it heterogeneous. 37.50% of the groups are homogenously single while 47.91% were homogenously married and 14.58% of the micro credit groups had mixed marital status. Majority of the agricultural micro credit groups 85.41% are homogenous in terms of marital status. On educational qualification, it was gathered that 96.91% of the group member can read and write (literate) while 20.83% of the groups had members that are illiterates. Due to the majority of 97.91%, it could be concluded that the groups are homogenous in terms of education it was observed that most groups are heterogeneous in other socio-economic characteristics such as income, savings mobilized and loan received.

(c) **Effects of Membership Homogeneity Characteristics on the Amount of Credit Received:** The amount of credit received by micro credit groups is known to be influence by the nature of membership composition. In this study, the multiple regression analysis was used to analyze the effect of membership homogeneity elements on the amount of credit received by micro credit groups.

The resulting regression equation is as follows:

$$CR = 4634.42 + 236.74M + 275.17D + 560.39P + 208S$$
$$(2.265)^{XX} \quad (2.795)^{XX} \quad (3.161)^{XX}$$
$$(5.507)^{XXX} \quad (5.892)^{XXX}$$

$$- 287.32I + 202.93A + 018H + 372.11E + 747.78HS$$
$$(3.969)^{XXX} \quad (8.892)^{XXX} \quad (3.733)^{XXX} \quad (2.511)^{XX}$$
$$(6.092)^{XX}$$

$$- 138.26C \pm 3655.93G + 449.57R + 1302.09ET + {}^{e-}$$
$$(1.649)^{X} \quad (2.294)^{XXX} \quad (6.838)^{XXX} \quad (.879)^{NS}$$

$R^2 = 92\%$, Adj. $R^2 = 92\%$ and F-valve = 238.280^{XXX}
^{XXX}, ^{XX}, ^{X} – Significant at 1, 5, and 10 percent, NS = Not Significant

The regression model reveals that the explanatory variables included in the model accounted for 92% of the variations in the amount of credit received by the agricultural micro credit finance groups. Twelve of the thirteen parameters include in the model were statistically significant. These parameters include membership size, length of stay in group, proportion of credit repaid, amount of savings made, interest charged,

age of members, household size, distance to credit source, gender and ethnicity.

The coefficient of membership size was significant at five percent and directly related to amount of credit received. This shows that the higher the membership size, the higher the amount of credit received by the groups. The length of stay in group was significant at ten percent and positively related to amount of credit received. This implies that the length of stay in a group which is equivalent of experience in group loan administration has a direct relationship on the amount of loan received. A positive relationship was expected between proportion of credit repaid and the amount of credit received. The direct relation that was evident in the model implies that in the study area, micro credit groups are likely to obtain more loan as their proportion of credit repaid increase. This is because; higher proportion of credit repayment is an obvious indication of available economic resources at the group disposal and a measure of good credit use (Okorji and Mejeha, 1993).

The coefficient of amount of savings made was significant at one percent and positively related to amount of credit received. The result was in line with *a priori* expectation which indicates that the higher the amount of savings mobilized, the higher the amount of credit received by groups. Okpukpara (2005) and Olomola (2000), had noted that the amount of credit received by groups is dependent on the amount of savings deposited. The coefficient of interest charged was significant at one percent and indirectly related to amount of loan received. This implies that the higher the interest charged, the lower the credit received as high interest rates tend to dissuade people from borrowing. This result was in conformity with work done by Okpukpara, 2005, Eyo, 2008, Olomola, 2000 and Enimu, Igiri and Achike, 2016.

The Co-efficient of age was significant at five percent and positively related to the amount of credit received. This indicates that the higher the age of the group members, the higher the amount of credit received. The income of the group member was significant at five percent and positively related to amount of credit received. The result was in line with Olomola (2000). Rweyemanu, Kimaro and Urassa (2003), who also found a positive relationship between income and the amount of credit received. The personal income of the group members acts as an insurance coupled with group moral and social bands. The coefficient of educational level of group members was significant at five percent and directly related to amount of credit received. This shows that the higher the educational level of group members, the higher the amount of credit they will receive.

The coefficient of distance travelled to credit source was significant at ten percent and negatively related to the amount of credit received. This is in conformity with *a priori* expectation and work done by Aryeety and Udry, (1997), Enimu, Igiri and Uduma (2015), who opined that distance affect the volume of credit received by micro credit groups. This is not a surprise because distance determines accessibility as it has a negative effect on savings and credit which are major factors in rural financial market. The coefficient for gender was significant at one percent and directly related to the amount of credit received. This implies that sex of the group's members either male or female play a significant role in the amount of credit received. The positive sign implies that as we move from 1 (female) to 0 (males) more female obtain more credit than their male counter parts in the study area as it evidence that more female are involved in micro credit activities. The coefficient of ethnicity was significant at ten percent and positively related to the amount of credit received. The result is in conformity with *a priori* expectation which postulates that membership of the same ethnic group will increase moral band and cohesion needed to increase group homogeneity for improve performance.

CONCLUSION

The study focused on the assessment of the effects of membership homogeneity on the design and performance of formal agricultural micro credit finance groups in Delta State, Nigeria. There is a general consensus among scholars that group tends to be more successful when socio-economic characteristics of some or several members are the same and are therefore relatively homogenous. In lending programmes designed to boost the access of poor farmers to credit, many financial institutions prefer the group approach to the individual approach which seems to be stressful in regards to excessive transaction cost to both lenders and borrowers. Nevertheless, the group approach has not removed the perceived problems of rural financial market service delivery totally, and there is the need for improvement in the use of group approach for optimum performance.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proffered towards improving the performance of agricultural micro credit finance groups in Delta State in particular and Nigeria in general:
(1) Micro credit groups should be composed of individual of the same social economic characteristics as this will help to build social cohesion and transfer of ideas that impact favourably on group performance.
(2) Given that distance was significant and negatively related to amount of credit received. It is therefore

recommended that micro credit institutions should reduce distance travel by developing agent/catchment banking.

(3) The micro credit groups should mobilized more savings in other to increase their loan portfolio for improve performance.

(4) Interest rate on loans should be reduced to encourage loan repayment by groups.

(5) The promotion of collaboration with Deposit Money Banks (DMBs), Micro Finance Banks (MFBs) and Communication Services Providers for enhanced intermediation of financial services should be encouraged.

Finally, the management of the micro finance institutions should consider these policy recommendations critically and possibly understand the homogeneous or heterogeneous nature of the groups and their design elements which promote financial services delivery. This definitely might improve micro credit finance groups overall performance and also increase financial inclusion of the rural resource constrained poor farmers.

REFERENCES

Adam, D.W. (1992). Building Durable Rural Financial Markets in Africa. African Review of Money, Finance and Banking (1) 5 – 15.

Aryeety E. and C. Udry (1997). The Characteristics of Informal Financial Markets in Sub-Saharan Africa. *J. AF. Econ (AERC Supplement).* 6:161-203.

Chen, S.; M. Ravallion and P. Sangraula (2010), The Developing World is Poorer than we Thought but No. less Successful in the Fight Against poverty. *Quarterly Journal of economics* 125(4): 557 – 625.

Delta State (2015), Main fact. http:/www.deltastate.gov.ng. Retrieved 2016.

Devereux, J. and R.P.H. Fishe (1993), An Economic Analysis of Group Lending Programmes in Developing Countries. *The Developing Economic XXX 1* (I) 102 – 121.

Enimu, S.; J. Igiri and A.I. Achike (2016), Analysis of the Effects of Micro Finance Bank Loans on the Livelihood of Small-Holder Farmers in Delta State, Nigeria *Economic Affairs (EA)* 61(3):381-390.

Enimu, S.; J. Igiri and I.S. Uduma (2015), An Assessment of the Performance of Community Banks in Financing Resource Poor Farmers in Delta State. International Research Journal of Marketing and Economics; 2(10): 64-75.

Eyo O.E.; J.O. Otu and M.G. Sampson (2008), "Homogeneity in Group Membership Social Characteristics and Loan Recovery Implications for Success of Formal-Informal Sector Linkage in Akwa-Ibom state, Nigeria. The Social Sciences, 3(1): 173-176.

Eyo, E.O. (2008). Determinants of Success of Micro finance Schemes Serving the Agricultural Sector in Akwa-Ibom State, Nigeria. *The Social Science.* 3(1): 173-176.

Federal Office of Statistics (1996), *Social – Economic Development of Nigeria*, Lagos.

Ghatak, M. (1999), Group Lending, Local Information and Peer Selection. *J. Dev. Econ.,* 60:27-50.

Ghatak, M. and T.W. Guinnane (1999). The Economics of Lending with Joint Liability: Theory and Practice J. Dev. Econ., 60:195-228.

Huppi, M. and G. Feeder (1989). The Role of Groups and Credit Cooperatives in Rural Lending. The World Bank, Washington, D.C.

Igben, M.S. and S. Enimu (2016), Generating Capital Accumulation for Farm Growth in Rivers State, Nigeria. The Cooperative Experience. 17th Annual Conference of Nigeria Association of Agricultural Economists, 687 – 691.

Mkpado, M; A.M. Idu and C.J. Arene (2010), Effects of Membership Homogeneity on the Performance of Agricultural Micro Credit Groups in Rural Credit Markets, Nigeria. *Pakistan Journal of Social Science.* 7(4): 304 – 317.

Nagarajan, G.; R.I. Meyer and D.H. Graham (1999), Does Membership Homogeneity Matter for Group – Based Financial Services? Evidence from the Gambia. *African Development Review,* 11(1): 87-102.

National Population Commission (2006): 2006 Population Census of Federal Republic of Nigeria Provisional Result, Abuja.

Okorji, E.C. and R.O. Mejeha (1993). The Formal Agricultural Loans in Nigeria: The Demand for Loans and Delinquency Problems of Small Holder Farmers in Owerri Agricultural Zone of Imo State, Nigeria Int. Journal of Tropical Agriculture, 1:1-13.

Okpukpara, B.S. (2005). Determinants of Choice of Financial Institutions among the Rural Savers Implication for Sustainable Rural Financial Savings Mobilization for Agricultural Development in Nigeria. The proceedings of the 19th Annual Conference of Farm Management Association of Nigeria (FAMAN).

Olomola, A.S. (2002), Social Capital, Micro – Finance Group Performance and Poverty Implication in Nigeria. *Nigeria Institute of Social and Economic Research (NISER), Ibadan.*

Olomola, S.A. (2000), Effects of Membership Homogeneity on the Design and Performance of Informal Finance Groups in Rural Nigeria. Final Research Report Submitted to AERC. Nairobi, Kenya.

Oludimu, O. (1983). The Demand for Institutional Credit in the Rural Sector of Nigeria. Some

Considerations. *Savings and Development.* 7:139-150.

Rweyemanu, D.C.; M.P. Kimaro and O.M. Urassa (2003), Assessing Micro Finance Services in Agricultural Sector Development: A case study of Semi-Formal Financial institutions in Tanzania. *Economic and Social Research Foundation.*

Slover, C.H. (1991), The Effects of Membership Homogeneity on Group Size, Fund Mobilization and Engenderment of Reciprocal Obligation among Informal Financial Groups in Rural Zaire (Paper presented at the Seminar on Finance and Rural Development in West Afirca, Osu/CIRAD.

Soren, H. (2002), *Household, Group and Programme Factors in Group-Based Agricultural Credit Delinquency. Ripon College,* USA: 43-58.

Stiglitz, J.E. and A. Weiss (1981), Credit Rationing in Market with Imperfect Information. *American Economic Review,* 2 (3): 393 – 411.

Stiglitze, J.E. (1990). Peer Monitoring and Credit Markets. *World Bank Economic Review.* 4(3): 351-366