Socio-Economic Determinants of the Performance of Informal Women's Cooperative Microfinance Societies in Enugu State, Nigeria

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**Socio-Economic Determinants of the Performance of Informal Women's Cooperative
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The problem of lack of access to credit to rural women is symptomatic of deep rooted structural inequalities, which not only curtail access to microfinance services but also the capacity to participate in other aspects of social life. Given such limitations, rural women organize their own forms of microfinance institutions (MFIs) which are peculiar to their own needs. The study was guided by the key null hypothesis that informal women's groups have not significantly increased the volumes of savings and that informal women's cooperatives have not significantly increased the volume of credit available to their clients. Six women groups were purposively selected from each LGA, making a total of 36 groups. A total of 216 clients were selected randomly from the groups. Data were collected from both primary and secondary sources. The results portrayed the respondents in the light of economic operators who depended on agriculture and allied activities for their sustenance. Their operations were characterized by poor resource situations resulting from lack of access to credit which obviously necessitated their involvement in informal women co-operatives. Their organizational structure, operational procedure and leadership allowed for optimization of efficient management and use of funds. However, informal women's cooperatives are still highly dependent on the NGOs for their operations. Quantitative analysis showed that: credit repaid was statistically significant and positively related to the amount of credit disbursed and repayment was related to total savings generated. So, the first, second, third and fourth null hypotheses were rejected.

1.0: INTRODUCTION:

Most women do not have access to education, and many of those who do accessed lower levels of this resource, because of gender inequalities. This lack of access to resources and low literacy levels have hampered women's ability to access information on support services that could improve their business, enable them earn reasonable income and thereby accumulate enough capital. The problem of financial exclusion of women is symptomatic of deep rooted structural inequalities, which not only curtail access to micro finance services but also the capacity to participate in other aspects of social life (Kebeer 2005).

Given such limitations, rural women organize cooperative institutions, especially those engaged in micro finance. Such institutions serve to address gender inequalities by mobilizing savings from members, donor agencies, NGOs and development agencies to develop members' businesses (Rutherford, 2002). Rural informal savings and credit associations have existed in Nigeria for over 400 years as rotating loan, daily savings, and monthly savings among co-operatives (CGAP, 2000; Seibel, 2000). They include informal women's cooperatives united by common

interest of disbursing credit and generating savings to increase members' businesses. Large proportions of borrowing and lending by rural women are from such institutions (Nweze, 1990; Agu, 1998; Hobgood, 2000). This enables millions of women with business initiatives to increase their on-farm and off-farm business. However the interest rate is high and the amounts usually generated are so small and are not adequate for large investment plans and cannot easily provide medium and long-term loans for such plans (Agu, 1998; CBN, 2005).

In an attempt to meet the financial/credit needs of agricultural projects at micro levels, successive Nigerian Governments have adopted varied methods, especially through micro finance institutions like the National Poverty Eradication Program (NAPEP), Agricultural Credit Guarantee Scheme Funds (ACGSFS), Nigerian Agricultural Cooperative Bank (NACB), Rural Banking Scheme (RBS), Nigerian Agricultural Co-operative and Rural Development Banks (NACRDB), Community Banks (CBS), Peoples Bank (PBs), Family Economic Advancement Programs (FEAPs), Agric Credit Support Scheme (ACSS) etc. These institutions are known to be biased against rural women, women's cooperative MFIs and small farmers for their inability to provide collateral (Nweze, 1990; Ogunleye, 2005). Consequently, most informal women's cooperative MFIs are not integrated or linked up to other formal or mainstream MFIs. Nweze, (2001) attributed it to supply-led government micro finance programs for cheap credit to the poor, which lack evenhandedness, transparency, efficiency and are not demand driven.

Because the institutions were not designed to function as true financial intermediaries that mobilize deposits to make loans, they had no obligation to operate under financial viability constraints, neither were they driven by commercial financial performance criteria. Several factors, including the chronic dependency on government funds, the lack of competition, bureaucratic obstacles and limited accountability contributed to bring about bad loans, extremely inefficient operations, loan recovery problems, political patronage and eventual collapse or un-sustainability of their credit facilities (Yaron,1992) .

Following years of disappointing experiences with this approach in Nigeria and other developing countries, policy makers and development practitioners have been searching for new and more sustainable models of rural credit. An impetus for the rethink is the increased recognition of the rural informal savings and credit associations especially informal women's co-operative micro finance institutions and their persistence and long term sustainability and how they could be linked to formal rural credit schemes. Ebo, (2000) is of the opinion that these formal micro finance institutions should be linked up to rural informal savings and credit, especially informal women's cooperative micro finance institutions to overcome the problems of information asymmetry, transaction costs and related risks to expand the frontiers of rural formal finance and to reduce poverty. International organizations are also coming to realization that non governmental organization are veritable and effective channels to ensure program implementation effectiveness, particularly, in poverty projects in view of their on the ground presence and first hand knowledge of the need and interest of the poor (Oke, Adeyemo and Agbonlahor, 2007). Informal women cooperative micro finance society at the grass root obtain loan from NGOs, while the NGOs obtained resources from donor agencies. For instance Ogundipe (1999) reported that external donor funds accounted for about 77% of the fund distributed to women cooperatives between 1992 and 1996.

There is no regulatory framework in Nigeria on how to integrate all the sources of informal, semi formal finance with formal financial deposit and credit institutions. This has serious implications for sustainability of the system. Integration of these systems will serve as a vital source of income and solvency required in business activities for the flow of agricultural products from the point of initial production until it is in the hand of the final consumers. These include efficiency in processing, transportation, selling, buying and storing by rural women. To ensure that machineries for enhancing access to credit are put in place, a study of this nature is required. Presently there is little or no information about the factors affecting rural women in financial intermediation. There is need for scrutinizing the performance of informal women co-operative

micro finance society in financial intermediation in the study area. It is in view of this that this study analyzes the socio-economic determinants of informal women's cooperative micro finance societies in Enugu State of Nigeria. The specific objectives are to:

i.   describe the socio-economic characteristics of rural women and their involvement in informal women's cooperative MFIs credit and savings activities;

ii. evaluate the performance of informal women's cooperative microfinance societies in terms of the amount of credit disbursed, amount of savings generated and number of clients reached;

iii. describe the operational procedures, sustainability and linkages of selected informal women's cooperative microfinance societies;

iv. communicate the intervention policies that will enable better access to credit by rural women groups to the appropriate authority.

Hypotheses of the study: Based on the above specific objectives, this study will be guided by the following null hypotheses:

i.   Informal women's cooperative micro finance associations have not significantly increased the volumes of savings of their beneficiaries.

ii. Informal women's cooperative microfinance associations have not significantly increased the volume of credit available to their clients.

iii. There is no significant relationship between socio-economic determinants of savings by informal women's cooperative MFIs and volume of savings generated.

iv. There is no significant relationship between socio-economic determinants of volume of credit disbursed by informal women's cooperative and volume of credit disbursed.

2.0: THEORETICAL/ ANALYTICAL FRAMEWORK AND LITRATURE REVIEW

Over the years, there has been phenomenal advance in conceptual and theoretical understanding of the persistence, popular and long term sustainability of informal women co-operatives microfinance society and how they could be integrated into formal finance. Much literature emphasizes their being able to handle information asymmetry, transaction costs, lack of

suitable collateral and other risks as their strength in long term sustainability. These issues are handled poorly by formal rural credit schemes and these are why they are not sustainable. Thus repayment is high in informal rural credit and savings scheme relative to formal. Informal women cooperative microfinance Institutions (MFIs) are also able to reduce the problems of social differences between male and female (two genders) having unequal opportunities and life chances (Dunford, 2006). The principles of these rural informal Micro Finance Institutions (MFIs) of women are centered on mobilizing small "pay" which will translate into *large take out* when needed (Kabeer, 2005). They are sustained through locally valued diverse financial and non financial services, expense-reducing techniques, locally adapted integrated loan guarantees and contract enforcement, and flexibility and convenience of loan services (Ebo, 2000).

Many researches have been conducted on wide varieties of issues relating to women's cooperative microfinance societies in general and evaluation of the performance of women's cooperative MFIs in rural finance intermediation in particular. Recent methodological research papers have revealed that there are limitations to a purely quantitative approach as well as to a purely qualitative approach in social science research, be it impact evaluation, poverty assessment, and so forth. Both quantitative and qualitative analysis were carried out in impact evaluation of cooperative microfinance scheme in china, Bangladesh, sub-Saharan Africa by several researchers including Cheng and Nguyen,(2000);Goetz and Senguta, (1996); Gurgand Pederson and Yaron,(1994); Shane, (2004); Holocomb and Xu, (1997). The results of various studies showed that women's cooperative MFIs have a positive impact on women's livelihood leading to poverty reduction, through asset creation associated with a series of loan financed investments, higher income that will help women to better perform their reproductive role as brokers of health, nutritional, and educational status of other household members. The performances of these groups in rural finance intermediation were mainly determined by some socio-economic characteristics of group leaders as well as members of the co-operatives.

The qualitative methods of Participatory System Analysis using focus group discussion, interview and observation techniques and quantitative methods using multiple regression analysis was used to analyze the socio-economics determinant of the performance of rural informal women's cooperative MFIs and their involvement in savings and credit activities for financial intermediation in Enugu state. Regression analysis was used to analyze the quantifiable determinants while focus group discussion, interview and observation were used for the unquantifiable determinants and other major factors affecting informal women cooperatives in rural financial intermediation.

3.0: METHODODLOGY

Data were obtained from a field survey of rural community managers of informal women cooperatives microfinance society and their members in Enugu state. Information were sought on age, sex, occupation, educational level, family size, income borrowing experience, credit repayment, number of clients reached, amount of credit disbursed, total savings generated etc.

A multistage random sampling technique was employed for the selection of the respondent in the three zones of the state. The three major agricultural zones are; 1.Enugu Zone, 2. Agwu Zone, and 3. Nsukka Zone. Two local government areas (LGA) were selected from each of the three agricultural zones to give a sample of six local government areas. Six women groups were purposively selected from each LGA, making a total of 36 informal women co-operatives micro finance society. A total of 216 clients were selected randomly from the groups. Development Education Commission (DEC), NALT United Self Help Organization (NALT NUSHO), Catholic Institute of Development Justice and Peace (CIDJAP), Ozalla Ezimo Community Based Savings and Credit Association (CSA) and National Poverty Eradication Council (NAPEP) operate in Enugu state. However DEC was the topmost NGO and gives loan to women groups in all the local government of the state while CIDJAP and NALT-NUSHO served women groups in all the local government in Nsukka zone. NAPEP and CSA only served very few informal women groups with credit. Data were collected from both primary and secondary sources.

Qualitative and quantitative analytical methods were used to realize the objectives of this research. Objectives (1) and (I11) were realized through descriptive statistics such as mean, percentages, charts and tables observation, focus group discussion and interviews with various stakeholders were used. Multiple regression model analysis was used to achieve objectives (11) socio-economic determinants of performance in terms of amount of savings mobilized (TSG), socio-economic determinants of the performance in terms of amount of credit (loan) disbursed (TALODI) and the socio-economic determinants of informal women co-operatives in terms of number of clients reached (N. CL. R.) and to test the null hypothesis.

Since the main aim of this study was to establish casual relationship between the dependent Variables (TSG, TALODI, N. CL. R) and independent variables in the independent variables in the model, the linear form of regression was run. Ordinary least square techniques was used to estimate the parameters of the model. This was because with the normality assumption for e_i, the OLS estimators are normally distributed and they are said to be best unbiased estimator (BUE) (Gujaranti, 1995). The regression analyses were run using SPSS package so as to determine the order of importance of the explanatory variables in explaining the variations observed in the dependent variable. The t-test was performed to test the significant of each of the explanatory variables at alpha level of 5%.

The model is implicitly specified as follows:

3.1: MODEL SPECIFICATION

Multiple regression model analysis was used to analyze objective (ii) in three different ways:

(A) Determinants of performance in terms of performance in the amount of savings Generated (TSG2007)

The model is implicitly specified as follows:

Y =   f (LEV.ED.M + YR.EX.M + IRAT.C07+ TALODI07 + TALORE07) + U

Where:

Y = volume of savings Generated (TSG07) (N)

LEV.ED.M = Level of Education of mangers (years of formal education).

YR.EX.MA = Years of Experience of Managers (years)

IRAT.C07 = Amount of Interest Charged per N 1000 (N)

TALORE07 = Total Credit Repaid (N)

TALODI07 = Total Credit Disbursed

μ = error term

(B) Determine the performance in terms of the amount of money disbursed (TALODI07)

The model is implicitly specified as follows:

Z = f (LEV.ED.M + YR.EX.MA+ TALORE07+ IRAT.C07+ TSG07)

Where:

Z = volume of credit disbursed (N)

IRAT.C07 = Amount of Interest Charged per N 1000 (N)

TALORE07 = Total credit repaid (N)

TSG07 = Total Savings Generated (N)

μ = error term

(C) Determinants of performance in terms of the clients reached (N. CL. R.).

The model is implicitly specified as follows:

Y = f (LEV.ED.M + YR.EX.MA+ TCRFD07+ IRAT.C07+ TSG07 + TALORE07) + U

Where:

Z = Number of clients reached (N. CL.R.)

LEV.ED.M = Level of Education of mangers (years of formal education).

YR.EX.MA = Years of Experience of Managers (years)

TCRFD07 = Credit Received from donor agencies (N)

IRT.C07 = Amount of Interest Charged per N 1000 (N)

TSG2007 = Total Savings Mobilized (N)

9

TALORE07 = Total Credit Repaid (N)

U = Error term.

3.2: STATISTICAL TEST

A one way Analysis of Variance (ANOVA) statistic was used to test for the significance of hypothesis a: There is no significant increase in the volume of savings of women cooperative MFIs (b): There is no significant increase in the volume of credit disbursed to members. (c): There is no significant relationship between the socio-economic determinants of savings and the volume of saving by informal women's cooperatives; and (d): There is no significant relationship between socio-economic determinants of credits disbursed and the volume of credit disbursed by informal women's cooperatives MFIs.

If the F-calculated > F-tabulated at 0.05 level of significance, we reject the null hypotheses and accept the alternative. a: That women's cooperative MFIs have significantly increased the volume of credit available to their clients. b: That informal women's cooperative MFIs have significantly increased the volume of savings of their beneficiaries hypothesis. c: There is significant relationship between socio-economic determinants of savings and volume of savings of informal women's cooperatives. d: There is significant relationship between socio-economic determinants of credit and volume of credit disbursed to the beneficiaries of informal women's cooperative MFIs. The coefficient of multiple determination (R^2), significant variables and a priori sign and F-statistics was used to test for the significant of hypothesis C and D.

4.0: RESULTS AND DISCUSSION

4.1 Socio economic characteristics of rural women

All the respondents were female. The age distribution of the respondents was skewed towards the upper age group of 40 and above indicating that there were a relatively high proportion of middle age respondents in the village. All the surveyed women were married with children. About 33.8% of the subjects, mostly those over 45 years of age, had never been to school while the rest added primary, secondary and tertiary levels of education. Farming is an important economic

activity in the areas. During the peak periods of farm operations, from May to July all the clients were involved in one farm operation or the other while marketing was the minor occupation. After the peak period most managers and other members of informal women co-operatives clients usually engaged in gathering of farm products in the hands of consumers. They go into full time occupation in post harvest agric business including distribution of fish, tomatoes, yam, cocoyam, processing of palm fruits, cashew nuts, melon etc mainly produced by other farmers. The respondents cultivated between one and two hectares of land. The size of credit received by rural women varied from N5000 to N40, 000 mainly for marketing activities. They were able to repay 99.9% of loan obtained from NGOs as a result of using peer pressure for collateral. If any member defaults the whole group will be forced to pay for such clients. Thus the members must be aware of the reputation of each of their clients and that each uses her loan in marketing to avoid default.

The rural women's access to the various factor of production is a clear indication of their poor resource situation which encourages their involvement in informal women's cooperative MFIs. The above socio-economic background of the respondents has revealed the characteristics of these rural women which portray them in the light of use and sources of credit in financial intermediation. Thus, informal women's cooperation has grown because rural women are constrained to source for themselves with credit which the government fails to provide, The main feature of such financial intermediation is that the local people identify their needs themselves and link up with NGOs which were in turn sponsored by donor agencies such as Community Development Foundation (CDF) or United Nation Development Program micro credit(UNDP-Nigeria) to meet such needs.

4.2: Evaluate socio-economic determinants of the performance of informal women's co-operatives.

4.2.1: Regression result of the determination of the performance of informal women's cooperatives in terms of the amount of savings mobilized.

Table 1 show empirical results of amount of savings generated model and the variables that went into it.   F ratio of 22.301 is higher than p of 0.05 implying that the model was a good fit. The adjusted $R^2 =$ 79 which implies that the variables in the model explained 79 per cent of the variability in percentage total savings generated (TSG). Thus model indicates that the explanatory (independent) variables included in the model accounted for 79 % of the variation in the performance of informal women's cooperatives MFIs in terms of the total amount of savings generated Credit repaid and total loan disbursed (TALODI) and year of experience of managers (YR.EX.MA) were significant factors that enhanced savings generated. Level of education of managers (LEV.ED.MA) and interest rate charge (IRAT.C) were negatively related and were not statistically significant with the total savings generated.

Table 1: Coefficients of linear regression equation on total savings generated (TSG)

Model	Unstandardized coefficients B	Unstandardized coefficients std error	Standardized coefficients Beta	T	Sig.
Constant	-177307	126580.6		-1.401	.172
LEV.ED.MA	-9630.216	11496.597	-.076	-0.838	.409
YR.EX.MA	62596.285	20453.666	.305	3.060	.005*
IRAT.C	-101.546	446.964	-.022	-0.227	.822
TALODI	3.969E-02	.016	.43	2.256	.002*
TALORE	9.816E-02	.019	.850	5.047	.000*

 *Significant at 5% level of significant

$R^2 = 79$ F ratio $= 22.301$

Credit repaid by informal women's cooperatives was statistically significant and positively related with the coefficient of 0.85 to the amount of savings mobilized. The positive influence of these variables is consistent with a priori expectations. Clients were afraid of not being labelled as not being creditworthy because of the social stigma attached to such label in the area. There is also penalty charge for not repaying loan as at when due ad this encourages members to attend meetings promptly and to pay their loan.

Total loan disbursed was also found to be statistically significant with the total savings generated with the regression coefficient of 0.43 to the amount of savings generated. This means that an additional naira of loan obtained by clients will raise savings generated by 0.43 percent. Thus more credit to clients in the study area will increase their productive and savings capacity as they are yet to attain their optimal credit utilization capacity. The positive influence of this variable also conform to the theoretical expectations expectations. This is because savings generated by members of informal women co-operatives was 10% of the total loan disbursed so one will expect that the high the amount of loan the higher the total savings generated. This again calls for linkages with developmental agencies without which rural women cannot be self-sufficient in micro finance.

4.2.2: Determination of the performance of women's cooperative societies in terms of the total amount of loan disbursed (TALODI).

In order to establish the causal relationship between the dependent and independent variables in the model linear form of regression was run. This gave the magnitude of the coefficient of multiple determinations (R^2)**,** standard error, significant variables and consistency of signs of coefficient with *a priori* expectations, the linear form was also used as the lead equation. The linear model is given as follows:

Table 2: Coefficients of linear regression equation on total credit disbursed (TALODI).

Model	Unstandardized coefficients B	Unstandardized coefficients standard error	Standardized coefficients Beta	T	*Sig*
Constant	-248754	574830.5		-0.433	0.668
LEV.ED.M	228599.1	238165.7	0.210	-0.960	0.345
YR.EX.MA	- 139011	289323.7	-0.096	-0.480	0.634
IRAT	-52840.5	300395.0	-0.023	-0.176	0.862
TSG	4.532	1.296	0.524	3.498	.001*
TALORE	0.395	0.092	0.490	4.295	.000*

Source: Field survey 2008.

* Significant at 5% level of significance R^2 = 83.9%, F ratio = 31.182

Where dependent variable = Total amount of loan disbursed (TALODI07)

Explanatory variables are

(I) = levels of education of managers (LEV. ED. M.) , (II) = Year of experience of managers (YR. EX.M), (III) = Interest rate charged (IRAT.C07), (IV) = Total savings generated (TSG2007) and (V) =Total loan repaid (TALORE07).

The selected equation (linear form) provided a good estimate of the socio-economic factors that determine the volume of credit disbursed. This is because the adjusted (R^2) was 84%. This shows that the explanatory variable included in the model was able to explain 84 percent of the variation in the performance of informal women cooperatives in term of the amount of loan disbursed.

An examination of the individual determinants showed that total loan repaid (TALORE) was also statistically significant at 5% probability levels with the regression coefficient of 0.92 with the total loan disbursed. This implies that an additional naira of loan repaid will raise the total loan disbursed by 92 percent. Thus the repayment by clients in the study area will increase

the ability of NGOs to give more loans to informal women co-operatives for disbursement. This is consistent with the *a priori* expectation since informal women's cooperative must repay their previous loan before they can qualify for obtaining another loan from NGOs.

The total savings generated (TSG) was also found to be statistically significant at 5% probability levels with regression coefficient of 0.52 with the total amount of funds disbursed. This show that an additional naira of savings generated will raise the total loan disbursed by 52%. Thus saving by clients in the study area will increase the ability of the informal women co-operatives to generate more funds for disbursement to informal women co-operatives.

The amount of interest charged (IRAT.C), year of experience of manager (YR. EX. MA) and level of education of managers (LEV. ED. MA) were insignificant and negatively explanatory variables to the amount of loan disbursed.

4.5.2: Determination of the performance of informal women's cooperatives in terms of the number of clients reached (N. CL. R.).

The linear model is given as follows:

Table 3: Coefficients of linear regression equation on number of clients reached (N. CL. R.).

Model	Unstandardized coefficients B	Unstandardized coefficients std. error	Standardized coefficients Beta	T	*Significant figure*
Constant	279.961	127.616		2.194	*.036*
LEV.ED.M	18.749	11.359	.087	1.651	*.110*
YR.EX.MA.	10-427	22.888	.030	.456	*.652*
TCRFD	1.629E-04	.000	.827	6.306	*.000**
IRAT.C	-1.083	.437	-.135	-2.479	*.019*
TSG	5.110E-04	.000	.300	2.866	*.008***
TALORE	*-250E-O5*	*-000*	*-.158*	*-1.646*	*.111*

Dependent variable = number of clients reached

*Significant at 5% level of significant , ** Significance at 10% level of significant.

$R^2 = 0.93$, F   ratio = 66.981

Field data, 2008.

The causal relationship between the dependent and independent variables in the model was also established by running the linear form of regression. This gave the magnitude of the coefficient of multiple determinations (R^2), standard error, number of significant variables and consistency of signs of the coefficient with a priori expectations, the linear form was chosen as the lead equation.

The result of the study (table 3) showed that the coefficient of multiple determination (R^2) = 0.93 was high. The model indicates that the explanatory (independent) variables included in the model accounted for 93% of the variation in the performance of informal women's cooperatives, in terms of the number of clients reached.

Examination of individual explanatory variables show that only one of the explanatory variables (TCRFD) was significant at 0.05 probability level while another one (TSG) was significant at 0.1 or 10% probability level. Two other factors were positively related but not significant explanatory variable while the last two were negative explanatory variables.

Total credit received from donors (TCRFD) was statistically significant with positive coefficient of 0.83 factors at 5% level of significant level with the number of clients reached. This implies that for every one client reached by informal women cooperative the total credit received from donors accounted for 83% of the variation. This is consistent with the theoretical explanation since more clients only joined to women groups to enable her obtain fund for marketing. An increase in funding by donor agencies make more fund available for targeting and mobilizing clients.

The total savings generated was statistically significant at 0.1 probability level is with a positive coefficient of 0.30 with the number of clients reached. The positive influence of the variable is consistent with a prior expectation. This implies that increase in savings mobilized will lead to increase in the number of clients reached by informal women's cooperatives.

Amount of interest charged (IRAT.C), and total loan repaid (TALORD) were found to be statistically insignificant and negatively related with clients' outreach. This suggests that increase in interest rate and repayment of loan will scare many clients away. The LEV.ED.M and YR. EX. M were found to be positive but statistically insignificant with the number of clients reached.

Test of hypothesis 1 and iii

Table 4: ANOVA for the amount of savings mobilized by informal women's cooperative MFIs in 2007 (tsg2007)

Model	Sum of sq.	d.f	Mean sq.	F	Sig.
Regression	6.9E + 11	5	1.4E + 11	22.301	.000[a]
Residual	1.8E + 11	30	6.2E +09		
Total	8.7E + 11	35			

Source: Field data, 2008.

To compute the F – statistic, the residual sum of squares obtained from the analysis of variance (ANOVA) results presented in the table 4.below was used.

F – calculated = 22.303,   F – tabulated = 2.50

Level of significance = 5 percent.

F – calculated = 22.301 and theoretical value of F at 5% level of significance is 2.50. Thus, F- calculated > F- tabulated at 0.05 level of significance. This implies that the independent variables have contributed to the performance of informal women cooperatives in terms total saving generated and that the variables included in the model were able to explain the models of TSG. Hence, we reject the null hypothesis and accept the alternative that informal women's cooperative MFIs have significantly increased the volume of savings of their beneficiaries.

The overall regression equation was significant at the 5% probability level, as the F statistics of, 22.301 was greater than the critical F- value 2.50 and the R^2 = 79 percent. This implies that those explanatory variables included in the model contributed significantly to the performance of informal women cooperatives. Thus, based on the fact that the F – statistic was significant, at 5% level, it

was accepted that socio-economic characteristics of informal women's cooperatives MFIs have significant relationship with their volume of savings. Therefore, hypothesis "iii' (there is no significant relationship between socio-economic determinants of savings and volumes of savings generated by informal women's cooperatives), was rejected.

Test of hypothesis ii and iv.

To compute F-statistic, the residual sum of squares obtained from the analysis of variance (ANOVA) results presented in the table below was used.

Table 5: ANOVA for the amount of fund disbursed by informal women' co-operatives MFIs in 2007

Model	Sum of sq.	Df	Mean sq.	F	Sig.
Regression	5E +013	5	1.096E + 013	31.182	.000[a]
Residual	1E + 013	30	3.514E+011		
Total	7E + 013	35			

Source: Field data, 2008.

F- calculated = 31.182   F – tabulated = 2.50   Level of significance = 5%.

Source: Field data, 2008

The F- calculated recorded 31.182 and the theoretical value of F at 5% level of significance is 2.50 Thus, F-calculated > F- tabulated at 0.05 level of significance. This implies that the explanatory variables included in the model contributed significantly to the performance of women cooperatives. Hence we reject the null hypothesis and accept the alternative that informal women's cooperative MFIs have significantly increased the volume of credit available to their clients.

The overall regression equation was not significant at 5% level as the F statistic 31.182 was more than the critical F – value 2.50 and R^2 =83.9 percent. This implies that the explanatory variables included in the model contributed significantly to the performance of informal women

cooperatives. The null hypothesis of no significant relationship between socioeconomic determinants of credit disbursed and volume of credit disbursed was rejected.

4.3: The operational procedures, sustainability and linkages of selected informal women's cooperative microfinance societies.

The result of focus group discussion, observation and interviews shows that managers and members of the informal women co-operative micro finance were from rural community of Enugu state. They consisted of members who obtain loan from non governmental organization and extend it to their members for income generating activities. Their close relation in terms of belonging to the same social groups made it easy for obtaining information about the potential members since joint liability and group cohesion, served as collateral for the group members to obtain micro credit from NGOs.

The intending beneficiaries and members of informal women cooperatives must be physically fit to carry out income generating activities such as processing and marketing of agricultural products. Amount of business investment ranged from 5000 naira to 60, 000. About 95% of the money used for the business was from informal women co-operatives.   Member must be of good behaviour and must attend weekly meetings. It was observed that the financial transaction hinges on social cohesion, trust and mutual dependence. The participants have numerous social, ethnic and economic relations with each other as a result of which women's co-operative MFIs face little problems of information asymmetry, transaction cost and moral hazard. Information asymmetry is handled at a relatively low cost than formal credit scheme by exploiting locally available information about the reputation, indebtedness and wealth of the prospective borrower, through repeated social and economic interactions. Loan repayment is ensured through sanctions, peer pressure and personalized relationships that may threaten the long term utility and reputation of the delinquent or defaulted borrower.

Member of informal women co-operatives were also involved in generating savings from their members. There are two types of savings for women's cooperatives that are linked up to

NALT NUSH. These are mandatory savings and voluntary savings of any amount which could be withdrawn at will. The mandatory savings is usually N 50 per week for all loan beneficiaries. This savings can only be withdrawn during withdrawal of membership of women's cooperatives. The interest rate of 3-5% was credited to all savers annually, to measure up with what obtains in the banking sector. Those that were linked up to other NGOs were only involved in mandatory savings of 10% of the amount of loan.

Though credit was administered individually to members in a group, there was collective responsibility on the part of the entire women's group members to ensure that all members paid their loans. A client decides when to withdraw from membership. A member of women's cooperative linked up to NGOs is mandated to save every week or month depending on the specific NGOs. This can be withdrawn by a client when she wishes to withdraw her membership from the NGO. Clients are normally allowed to obtain loan from most of these NGOs for a maximum of 5 years after which the person will have saved reasonable amount to use her own capital for the business.

The interest payable in NALT-NUSHO was 32% per annum while that of DEC was 30% per annum and 23% for CIDJAP. Those that belong to NAPEP and CSA paid only 8% and 14% respectively. The total amount of the loan given to a client was added to the annual service charge of 32%, 30% and 23% and divided into 44 weekly install mental repayments or 10 annual install mental repayment in case of DEC. For instance, a woman that got N10,000 loan would have to pay N3200 interest. This means that a total of 13200 divided into 44 weekly installments would bring about the loan repayment of N300 per week, N50 savings and a total of N350/ week would be paid by a client for 44 weeks. For a woman in DEC with 10,000 naira loan, she will pay an interest of N3,000 and 13000 will be divided into 10 installments repayment of 1300 every month. The repayment rate for women's groups that were linked up to most of these NGOs was about 99%. The default was mainly due to death of members due to their efficient management of funds.

In conclusion, there is considerable flexibility in the organization of women's cooperative associations. By their nature, such associations are not formed on a standard form of organization but are guided by their objectives and philosophy of mutual interest, self-help through cooperation, mutual benefit and democratic control. The educational and occupational background of participants necessitates the adoption of a simple form of organization capable of easy understanding and management.

This work has also indicated high levels of NGOs participation in funding the informal women's cooperative in microfinance activities. However their interest rate is relatively higher than those of National Poverty Eradication Programme. The interest rate of NAPEP and CSD are between 5 and 8% while that of NGOs is between 23% and 32 %.

5.1: Conclusion

The following conclusions are derived from this study which was designed to analyze the socio-economic determinants of informal women's cooperative MFIs in Enugu state. The socio-economic background of women has portrayed them as economic operators who depended on agriculture and allied activities for their sustenance. In the same vein, women's access to formal micro-credit is a clear indication of their participation in informal micro finance societies. Although the road to gender equality and poverty alleviation is rough and challenging, this study has shown that informal women's cooperative MFIs have played a key role in addressing issues of poverty alleviation and gender inequality. The result of the quantitative analysis showed that approximately 84% of the variation in the amount of savings was explained by the independent variables included in the model so the second and forth null hypothesis was rejected which means that the informal women cooperatives has significantly increased the credit disbursed to their members. Similarly the result of quantitative analysis also showed that repayment was related to savings with R^2 of 79 and the first and third null hypothesis rejected which means that the informal women cooperatives have significantly increased the savings of their members. This was achieved through a simple form of organizational structure and various linkages for financial empowerment of the poor women. The

existing micro enterprises were expanded, new business established and women were empowered to be more productive and earn more income.

Nevertheless, although a lot of significant impacts have been made by these organizations, they are still highly dependent on the NGOs for operation. This implies that for these associations to be relied upon in far-reaching gender equality and poverty reduction, their potentials need to be developed through training and further involvement in productive activities Since this study shows that women repaid 100% of micro-credit loan given to them, efforts should be made to incorporate their models into other women-based rural development project that require capital project. Also apropos in this regard is the suggestion to assimilate informal women's cooperative MFIs into federal government's overall rural banking policy. This will go a long way towards reducing the problems of high dependency on NGOs for funds. The bulk of loanable funds in these programmes have been contributed by NGOs. The amount of fund mobilized from savings has not matched the amount of funds used for credit disbursement and virtually all credit disbursed was obtained form linkages.

5.2: RECOMMENDATIONS

The results of the study have some vital policy implications for enhancing the performance of informal women's cooperative MFIs in provision of micro-credit in Enugu state. The policy recommendations include the following:

i) The success of informal women's cooperative MFIs depends on linkage between informal women's cooperatives and formal financial institutions. This implies broad-based partnership in which government joins with NGOs (local and international) and women's cooperatives in providing micro-credit and other financial services for rural development. Other stakeholders include Federal Government agencies such as NAPEP and NACRDB and other international stakeholders such as DFID and UNDP. These can work together to link up with organized women's micro credit societies for sustainable rural microfinance programmes.

ii) Relevant government agencies such as NAPEP, NACRDB should assist the informal microfinance institutions to engender both mandatory and voluntary savings mobilization programmes for their clients. This will further broaden linkages with formal financial institutions and enable the poor increase control over their economic futures. It will also provide a substitute for traditional collateral and give informal women's cooperatives a source of loan funds.

iii) All informal women's cooperatives should compulsorily register and link up with the micro finance banks which are also should be under the control of the national monetary authority. This institution will take over direct responsibility for their inspection and enable women's microfinance institutions to benefit directly from their funds without the exploitation of the NGOs that charge exorbitant interest rates and not regulated by the CBN.

iv) Informal women's cooperative MFIs and microfinance banks should be linked for enhanced savings and credit potentials of the two institutions. Partnership between banks and informal women's cooperatives- includes credit lines, deposit services, joint training and learning best practices which can benefit banks, informal women's cooperatives and micro business.

v) There is need for close supervision by relevant agencies to minimize excesses and mismanagement of funds. The flow of fund from NAPEP and similar agencies to MFBs for on lending to the poor, including rural women, should be closely monitored. This is to ensure that the poor have access to such funds. Close links between NAPEP, MFB and rural microfinance institution will go a long way to ensure that rural women have access to credit at reasonable interest rates This will enable the rural women save reasonable amount of money and to become operationally self sufficient.

vi) In order to enhance the functioning of the informal women's cooperatives, government agencies should assist the leaders through capacity building programme such as workshops aimed at increasing their managerial skills. This will help them to define and regularize by-laws, registration procedures, and adoption of new financial technologies. It will enable them learn to keep adequate

accounts and draft balance sheets and income statements. Informal women's cooperatives will also

be assisted in routine inspection and audit of account through workshops.

REFERENCES

SINGLE AUTHOR BOOK

Gujarti, D. N., 1995, Basic Econometrics, 3rd edition, New York, McGraw-Hill, Inc, pp: 838.

CHAPTER IN EDITED BOOK
Agu, C. C. 1998, 'Methods of Enhancing Efficiency in Loan Processing, Evaluation and Disbursement': In M. O. Ijere and A. Okorie (eds). *Reading in Agricultural Finance*, BENCOD Press Limited IGNMU Lagos.

SINGLE AUTHORED JOURNAL ARTICLE
Eboh, E.C., 2000 'Rural Informal Savings and Credit Associations as Risk Managers and Lessons for the Design and Execution of Rural Credit Schemes in Nigeria;. *Journal of African Development Bank,* Pp 233- 262.

Nweze, N. J. 2001, "Poverty, Microfinance and Co-operatives Promotion in Nigeria. *Nigerian Journal of Co-operative Studies,* Vol. 1 No. 1

MULTIPLE AUTHORED JOURNAL ARTICLE
Oke J.T. O,; R Adeyemo, and M. U. Agbonlahor 2007, An Emperical Analysis of Microcredit Repayment in Southwestern Nigeria.

CONFERENCE PAPER
Dunford, C.2006, 'Evidence of Microfinance's Contribution to Achieving the Millennium Development Goals' Paper, Presented at the Global Micro-credit Summit, Halifax, Nova Scotia, Canada November 12-15 2006.

Hobgood, T.2000, 'Keynote Address' Paper Presented at the conference on Micro and Rural finance at NICON Hilton Hotel, Abuja, Sept. 12-15-2000.

Seibel, H. D. 2000, 'Financing the Rural Sector: The Role of Rural and Agricultural Banks' Paper Presented at the conference on micro and Rural finance at NICON Hilton Hotel, Abuja, Sept. 12-15-2000.

DISSERTATION

Shane, N. 2004, 'A Case Study Analysis of the Impacts of microfinance upon the lives of the poor in rural China' Unpublished M. Soc. Sc. Thesis, School of Social Science and Planning RMIT University Melbourne, Australia.

WEBSITE

Ogunleye, B. 2005, '*Women's Environment and Development Organization'.* Retrieved October, 2007 from Count Down: The Newsletter of Micro credit SummitCampaignWebsite:http://www.microcreditsummit.org/newsletter/ogunleye.htm.

MONOGRAPHS

C.B.N, 2005, *Microfinance Policy, Regulatory and Supervisory Framework for Nigeria.* Central Bank of Nigeria, Abuja. World Bank Press.

Cheng, E. & T.Nguyen, 2000, 'A Critical Assessment of Microfinance as a New Paradigm for Poverty Alleviation in the Light of New Evidence from Qinghai, China', *Department of Economics, University of Adelaide, Adelaide.*

Goetz, A. M., & R. S. Gupta, 1996, 'Who Takes the Credit? Gender, Power, and Control over Loan Use in *Rural Credit Programs in Bangladesh*,' *World Development*, Vol. 24, No. 1, pp.45-63.

Gurgand, M.; Pederson G and Yaron J 1994, 'Outreach and Sustainability of Six Rural Financial Institutions in Sub-Saharan Africa', *Discussion Paper* 248, The World Bank, Washington DC.

Holcombe, S., and Xu, X. 1997, 'Microfinance and Poverty Alleviation: UN Collaboration with Chinese Experiments', In: *Rural Microfinance in China,'* edited by Du. X., Liu W., Zhang B & Sun R., pp. 20-96, Beijing: China Economics Publishing House.

Kabeer N., 2005, "*Is Microfinance a Magic Bullet for Women Empowermen*t'? Political and economic week 29th October, 2005.

Nweze, N. J. 1990, 'The Role of Women Traditional Savings and Credit Cooperatives in Small Farm Development'. *African Rural Social Science Series Research Report.* 1(11),11

Ogundipe, E. A., "The role of non governmental organization in poverty alleviation in Nigeria" *Bullion publication of CBN vol*. 23: 58-65.

Yaron, J. 1992, 'Rural Finance in Developing Countries' *Policy Research Working Papers* (WPS 875), Agriculture and Rural Development, World Bank, Washington D C