WOMEN AND THE VILLAGE ECONOMY: AN ECONOMIC ANALYSIS PARTICIPATION OF WOMEN IN SELF HELP GROUPS

Dr. T. Saravanan

Assistant Professor, Post-Graduate Department and Research Center in Economics, AVVM Sri Pushpam College (Autonomous), Poondi , Thanjavur.

ABSTRACT:

The present study seeks to examine the impact of microfinance and other socio-economic factors on women empowerment in two villages of Thoothukudi district of Tamil Nadu, namely, Sawyerpuram and Meignanapuram have been identified. Here women empowerment is viewed from their participation in decision making and income employment generation activities. The study is based on a field survey in which Self Help Group (SHG) members are chosen as respondents. Choice of these two villages stems from the fact that they account for maximum numbers of SHGs in the district. The study used multi-stage stratified proportionate random sampling technique in the selection of the representative district, taluka, villages and households. Empirically acclaimed logistic regression model has been employed for analyzing significant impact of plausible socio-economic factors. Empirical findings suggest that variables like member and her husband's income have overall positive influence on participation decision of women in SHG. On the other hand decision making of women has been observed to get adversely affected by amount of loan granted and household income of families under consideration. In case of income and employment generation, age and income of SHG members, their household income and amount of loan are found to have positive effect whereas husband's income impacts negatively.

KEYWORDS: Micro Finance, Women Empowerment, Work.

INTRODUCTION

Indian banking system faces a lot of challenges in providing financial services to every strata of the society. At present, more than half of the population is excluded from the financial ambit and several socio-economic factors are directly or indirectly responsible for such state of order. Microfinance institutions and several self help groups (SHG) have emerged as subsector of financial system to provide service to the needy, especially women members of any household. These kinds of institutions and organizations have been playing crucial role in enriching an inclusive financial system of Indian economy and empowering women across the nation. Microfinance through self help groups (SHG) has been recognized internationally as the modern means to combat poverty and for rural unemployment. It has been accepted that microfinance plays a vital role in reducing poverty since it paves way for employment and empowerment which leads to economic development. The most effective tool for assessing the benefits of microfinance is the measurement of its impact on the poor in terms of employment, income,

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consumption, assets, nutrition, children's schooling, fertility and use of contraceptives. The objective of microfinance is to help the poor people to build their productive capacity, become self-employed and improve their quality of life. In India state like Tamil Nadu has been playing a pioneering role in harvesting potential of MFI and SHG and drew a lots of research attention. This paper focuses on analyzing effect of some crucial socio-economic factors which play pivotal role in shaping decision of women members of SHGs and generating employment and income. Data covering a large sample of 237 households belonging to different social strata from two villages of Thoothukudi district of Tamil Nadu, namely, Sawyerpuram and Meignanapuram is chosen for this analysis.

DATA AND METHODOLOGY

The focus of the study is to assess the contribution of the microfinance program in social and economic empowerment of the poor, in general and women, in particular. Accordingly, the study is based on primary data. This study used multi-stage stratified proportionate random sampling technique in the selection of the representative district, taluka, villages and households. The study is conducted in two villages in Thoothukudi district of Tamil Nadu namely Sawyerpuram and Meignanapuram since these villages accounted for the largest proportion of the SHGs in the district. The collected primary data with the help of a structured questionnaire from 237 sample households SHGs functioning in two villages representing of Thoothukudi district. These groups are formed and promoted by Self-help group-bank linkages (SHG-BLP). The total sample size is 237, out of which are 36 are SCs, 15 are STs, 86 are BCs, 82 are OCs and 18 belong to the minority community (Table 1). The primary data pertained to the year 2015-16. The study is based on a field survey which was conducted during the period 01st May to 31st August, 2016.

Table 1: Distribution of the Sample Members in Selected Villages

Social Groups	Name of the Villages						Total		
	Sawyerpuram			Meignanapuram					
	Total	< 2	SS	Total	< 2	SS	Total	< 2	SS
SC	240	120	24	120	60	12	360	180	36
ST	94	45	9	60	30	6	154	75	15
BC	690	345	69	168	84	17	858	429	86
OC	699	345	70	120	60	12	819	405	82
Minority	150	75	15	29	15	3	179	90	18
All Social Groups	1873	930	187	497	249	50	2370	1179	237

Note: < 2 - Two years completed; and SS - Selected Sample.
Source: Field Survey.

FUNCTION OF SHG IN SELECTED VILLAGE

Thoothukudi district has also made rapid strides in SHG movement. DWCRA is a government SHG which performs under the District Rural Development Agency (DRDA). It started group formation in 1998, with just 10 groups. Generally, a group under DWCRA scheme consists of a minimum of 10 members. It brought awareness among rural women about saving a rupee per day for future income generation. Therefore, the thrift of every member of this group per month was initially Rs.30. Now it is Rs.100. It is to be noted that every new group has to save Rs.100 per month and this process must be continued up to six months. Consequently, the new group will get access to obtain loan from the bank only after successful completion of the saving period, that is, six months. Therefore, within a span of six months a new group, consisting of 10 members, needs to have saved about Rs.6,000 to be eligible to get a loan of Rs.50,000 in the first instance. Initially, the amount was Rs.25,000 up to 2005, then it was increased to Rs.50,000 from 2011 onwards. Similarly, a group generally gets access to a loan of maximum Rs.4 lakh with regular performance of repayment and savings simultaneously. The rate of

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interest on Rs.100 was one rupee during the initial period, but in the recent years it has significantly come down to just 25 paisa (i.e., one-fourth of a rupee). It is to be noted that irrespective of the loan amount, the duration of repayment was initially 24 months. Now it has been increased to 36 months. It is usually observed that while forming Self-Help Group Promoting Institution (SHPI) much importance is not given to caste. But in these villages, SHPI gave much importance to caste. In both selected villages, most of the groups have been formed based on caste.

Total number of groups in 1998 was 10; it increased to 170 by 2014. Therefore, 160 groups were formed over a period of 17 years. However, the formation of new groups seems to have increased gradually. Sawyerpuram village with 1,874 SHG members is another village that has been making rapid strides in SHG movement. This village has the highest number of SHGs. In this village, almost all families are involved in SHG activities. SHGs in Sawyerpuram village have been provided financial assistance to take up income generating activities in the rural areas. There are 170 SHGs functioning in the village with a membership of 1,874 rural women with an average of 11 members per group. Out of 1,874 members, 930 have completed two years. Among 930 members, 120 are from SC community, followed by 45 STs, 345 BCs, 345 OCs and 75 from the minority community.

The SHGs are fast emerging as instruments of socioeconomic change in rural areas. It has taken the shape of a silent revolution and is bringing about social transformation in rural areas. This movement is marching ahead at accelerated speed. It is therefore necessary to study the impact of SHG movement on various developmental activities, and the social changes brought about by this movement. In Meignanapuram, SHGs are working actively and the economic conditions of the members are gradually improving. In this village almost all families are involved in SHG activities. The SHGs in the village have been provided with financial assistance to take up income generating activities in the rural areas. There are 42 SHGs functioning in the village with a membership of 497 rural women, and an average of 12 members per group. Among the total SHG members, 249 have completed two years. Among 249 members, 60 are from SC community, followed by 30 STs, 84 BCs, 60 OCs and 15 from minority community.

SOCIO-ECONOMIC PROFILE OF THE SAMPLE MEMBERS

An important aspect of the study is the socioeconomic profile of the members of the SHGs. For this study, total 237 members are interviewed with the help of comprehensively structured schedules. The socioeconomic profile of the members include their age, marital status, education, type of household, access status of ration cards, source of drinking water, source of energy, family size, husband's education and landholdings. Therefore, the primary data was analyzed with use of affordable statistical tools and the profile of members results explored that the selected villages that most of the SHG members are in the age group of 26-35 and 36-45 years. The marital output explains that 91 per cent of the members are married and remaining of them widows. In Sawyerpuram village the number of widows is large, when compared to in Meignanapuram village. Also, it is highest in the SC community and lowest in the ST community in both the villages. Similarly, the education level of the members shows that nearly 68 per cent are literate and remaining of them illiterate. It is also observed that in all the villages, majority of the families is nuclear. This figure is highest in Sawyerpuram village. Similarly, about 86 per cent of the members reported that their husbands are the heads of the household. An interesting observation from the study is that all the members (100 per cent) have ration cards in all the selected villages and out of that, about 98 per cent has green card, while only 2 per cent has white card. Similarly, it is noticed that nearly 84.8 per cent of the members live in pucca houses, and rest of the members are living in semi-pucca houses. The study also found that about 53.6 per cent of the members have access to proper toilet facilities, while 46.4 per cent resort to the open outlets. Members with access to proper toilet facility are highest in Meignanapuram and lowest in Sawyerpuram village. Non-availability of proper sanitary facilities is reported to be highest in ST community members, followed by SC, BC, OC and minority community members. Similar is the position regarding the access to source of energy for cooking, where it is observed that only 43.29 per cent of the members use gas for cooking. The study further shows that 15.3 per cent of husbands of the SHG members are illiterate.

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In regards to the landholding of respondent's families, it emerges that the land-owning families own either marginal, small or semi-medium holdings and almost half of the members are landless. The percentage of members who do not have land is highest in Sawyerpuram village. It is important to note that among all social group members, percentage of members who do not have land is highest among minority community members.

It is also observed that highest percentage of groups which are working for two years is found in Sawyerpuram and lowest is found in Meignanapuram village. It is interesting to note that in Sawyerpuram village, a large number of older groups are found in OC and BC community as compared to SC, ST and minority community. The size of group plays an important role in group dynamics. It is observed that about 45.5 per cent of the members reported that their group size is less than 10 members.. Based on the financial capability of the members, each SHG fixes a certain amount as mandatory savings. However, a great deal of variation has been observed among SHGs in the both selected villages. In the present study, the average mandatory savings per member is Rs.100. Out of 237 members; majority's (73 per cent) members' monthly savings is between Rs.51 and Rs.100 and of the remaining 27 per cent, is less than Rs.50. However, of the 73 per cent members who save Rs.51 to Rs.100 per month, the majority belong to Meignanapuram. Of all the social groups, the highest percentage of members with monthly savings between Rs.51 and Rs.100 is found in ST community (80 per cent), followed by BC, OC, minority and SC community. It is very crucial to note that among the social group members, majority (61.5 per cent) of the SC members' monthly savings is less than Rs.50. The study found that before the formation of the SHGs in the selected villages, most of the women were housewives or agricultural laborers, and their involvement in economic activities was insignificant. After the formation of the SHGs in the selected villages, women enrolled themselves as members and their occupational status changed. The microfinance through the SHGs enabled the members to promote their income-generating activities, such as running petty shops, tailoring/embroidery shop, dairy/poultry, cloth/fancy shop, small hotel, vegetable/fruits shop, flour mills, chicken shop, pickle/curry center, bangle shop, toy/pot-making, steel/cement shop, bricks industry, flower vending shop, sweet shop and rice trading. In turn, the standard of living of the members improved. It is observed that the percentage of self-employed members is highest in Meignanapuram while it is lowest in Sawyerpuram village.

EMPIRICAL ANALYSIS OF WOMEN EMPOWERMENT

In the following section, a brief note on logit model is given. Since two dependent variables namely, women decision making and asset creation are qualitative variable, logistic regression model has been employed for analysis of impact of some socio-economic factors on them.

The Logit Model

Logistic regression was proposed in the year 1970 as an extension of traditional ordinary least square method and to overcome its limitation in incorporating dichotomous or binary variables as dependent variables. The logit models become extremely popular in the fields of social sciences because a large number of variables like gender, caste, marital or educational status etc., coming under its domain are qualitative in nature. Social scientists like Afifi and Clerk (1990), Ryan (1997) and Tabachnick and Fidell (2001) recognized and acknowledged the importance of logit model as a useful alternative to linear regression modeling technique. A short empirical outsketch of logit model is briefed.

Let us consider a binary response variable Y and an explanatory factor, say, X_i. A logit model predicts logit of Y, i.e. log of odd ratio of Y from predetermined variable X_i. The simple logit model can be represented as-

$$\ln \frac{e}{1-e} = \alpha + \beta x = \log (\text{odds}) \text{--------(1)}$$

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Where e = probability (Y= outcome of interest| X=x) = $\dfrac{e^{\alpha+\beta x}}{1+e^{\alpha+\beta x}}$

Extending the logic model for multiple predictors, a complex logistic model can be constricted as follows-

$$\ln \frac{e}{1-e} = \alpha + \beta_1 x_1 + \beta_2 x_2 + \ldots\ldots + \beta_k x_k \ \text{------(2)}$$

Where e is the probability of occurrence of the event and all β_i are slope coefficients capturing marginal effect of each explanatory variables and α is intercept term. All the parameters are estimated by maximum likelihood (ML) method. (e/1-e) is called odd ratio in favour of the event under consideration and log of odd ratio is the logit. Interpretation of all β_i coefficients are little tricky in logit models. For example interpretation of coefficient β_2 in equation 2 is as follows- a unit change in x_2 will cause $(e^{\beta_2} -1)*100$ percentage change in odd ratio in favour of the event under consideration. Similarly other slope coefficients can be interpreted in the model.

WOMEN DECISION MAKING PROXIMATE DETERMINANTS

It is possible that decision making behavior of the SHG members may have undergone changes after the SHG respondents are exposed to the microfinance activities. It is expected that socio-economic factors like SHG member age, marital status, husband's education and training etc. exert considerable influence on the member decision making. It is now hypothesized that the decision making by the SHG members is influenced by socio economic factors like SHG members age, SHG members education, SHG member marital status, SHG members yearly income, SHG member type of family, SHG member's husband education, SHG member's husband income, household income, Loan amount and number of meeting attended by SHG members and size of land owned by them. Accordingly, the following logit model is formulated:

$$\ln \frac{e}{1-e} = a_0 + a_1*SHGMAGE_i + a_2*SHGMEDCN + a_3*MSTATUS + a_4*SHGMINCM + a_5*FTYPE + a_6*HEDCN + a_7*HINCOME + a_8*HHINCOME + a_9 * LOANAMT + a_{10} *MEETING + a_{11} * SIZEOFLAND + U_t \ \text{-------(3)}$$

Where e = probability (DESMAK = Decision of member to participate in SHG | $X_i = x_i$ for all i) and X_i denotes i th explanatory variables.
In the above model, the variables are described as follows:
DESMAK= 1 if decision taken by SHG member to participate in MFI
        =0 ,otherwise
SHGMAGE= SHG members age
SHGMEDCN= SHG members education
MSTATUS = SHG member marital status
SHGMINCM= SHG members yearly income
FTYPE = 1 if size of family is more than 3.
        =0, otherwise
HEDCN= SHG member's husband education
HINCOME= SHG member's income
HHINCOME= Household Income
LOANAMT= Loan amount
MEETING= SHG members attending meeting
SIZEOFLAND= land size
U_t= Error term

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IMPACT OF MICROFINANCE ON INCOME AND EMPLOYMENT GENERATION ACTIVITY

Similarly it is anticipated that income and employment generation activity may also undergo changes as SHG respondents are exposed to the microfinance activities. It is observed that factors such as SHG members age, SHG members education, SHG member marital status, SHG members yearly income, SHG member's husband education, SHG member's husband income, SHG members attending meeting, frequency of taking loan, loan amount, member participating training program, size of land and household assets exert considerable influence on the member generating income and employment. In the light of this background, the following logit model is formulated:

$$\ln \frac{e}{1-e} = a_0 + a_1 * SHGMAGE_i + a_2 * SHGMEDCN + a_3 * MSTATUS + a_4 * SHGMINCM + a_5 * HEDCN + a_6 * HINCOME + a_7 * HHINCOME + a_8 * LOANAMT + a_9 * TRAINING + a_{10} * SIZEOFLAND + a_{11} * HHASSETS + U_t \quad \text{--------(4)}$$

Where e = probability (ACTIVITY = income and employment generation | $X_i = x_i$ for all i)

In the above model, the variables are described as follows:
ACTIVITY= 1 if income and employment activity is observed.
　　　　=0, otherwise
SHGMAGE= SHG members age
SHGMEDCN= SHG members education
MSTATUS= SHG member marital status
SHGMINCM= SHG members yearly income
HEDCN= SHG member's husband education
HINCOME= SHG member's income
HHINCOME= household income
LOANAMT= Loan amount
TRAINING= SHG member participating training program
SIZEOFLAND= land size
HHASSET= j=household asset
 U_t= Error term

EMPIRICAL RESULTS:

The models formulated above [equation (3) and (4)] are estimated with logistic regression technique since in both cases the dependent variables are qualitative in nature. When standard logistic regression technique is employed for both equations log of odd ratio in favour of the event under consideration becomes the dependent variable in both equations. For example, in the first equation dependent variable is the log of odd ratio in favour of taking decision by the member to join SHG against non- participation. Similarly, in second equation log of odd ratio in favour of employment and income creation against non-generation is the dependent variable. Estimates of equation (3) are given in table-2.

Table-2:Estimates of Impact of Social and Economic Factors on Decision making

Variables	Coef	Std. Err	Z	P>Z	95per cent Confidence Interval	
smemage	-. 00967	. 01687	-0.57	0.567	-.0427	.02340
smemedcn	-. 09104	. 3464	-0.26	0.793	-.7700	.5879
Mstatus	-.8544	.7823	-1.09	0.275	-2.387	.6789
smincome	.00103	.00028	3.66	0.000	.000480	.00158
Ftype	.8372	.3481	2.41	0.016	.1550	1.519
Hedcn	-.0802	.4518	-0.18	0.859	-.9659	.8054

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hincome	.0000693	.000025	2.71	0.007	.0000192	.00011
hhincome	-.000072	.00023	-3.13	0.002	-.000117	-.00002
loanamt	-.000029	.000010	-2.69	0.007	-.0000509	-8.01 e-106
meeting	1.116	.5064	2.20	0.027	.1238	2.1090
sizeofland	.11072	.08796	1.26	0.208	-.06168	.28313
Cons	.62313	1.046	0.60	0.552	-1.4281	2.6744
Number of observation	**237**					
LR chi2 (11)	**36.92**					
Prob > chi2	**0.0001**					
Pseudo R2	**0.1177**					
Log likelihood	**-138.39363**					

From table-3 it is evident that out of eleven socio economic factors, six have statistically significant impact on decision making of SHG members. Reported coefficients signify change in log of odd ratio in favour of the decision of member to participate in SHG due to one unit change in each explanatory variable. If income of SHG member grows by one rupee then log of odd ratio in favour of taking decision to join SHG increases by .001 units. Similarly log of odd ratio goes up by .837 units if family size under consideration is large. Log of odd ratio also increase marginally by .0007 units if husband's income of the SHG member increases by one rupee. Attending one extra meeting of SHG is found to have positive impact by 0.11 units over log of odd ratio. Household income is found to affect log of odd ratio adversely. This finding is in consensus with economic intuition since a member of any well off family will have lesser chance to join the SHG. Increase in loan amount affects odd ratio adversely. Other variables like marital status of members and their age as well education status, husbands' education status, size of land holding etc. have no considerable impact on decision making of SHG membership.

Similarly estimates of equation (4) are given in table-3.

Table-3: Estimates of Impact of Social and Economic Factors on Income and Employment Generation Activity

Variables	Coefficients	Std. Err	Z	P>Z	95per cent Confidence Interval	
smemage	.0777	.0264	2.94	0.003	.0258	.1295
smemedcn	.5443	.4958	1.10	0.272	-.427	1.516
Mstatus	1.274	1.02	1.25	0.213	-.731	3.280
smincome	.0019	.00038	5.03	0.000	.0011	.0026
Hedcn	1.127	.652	1.73	0.084	-.1517	2.406
hincome	-.00014	.00004	-3.62	0.000	-.0002	-.00006
hhincome	.000024	.000028	0.84	0.401	-.000032	.00008
loanamt	.000056	.000016	3.38	0.001	.000023	.000089
Training	.3718	.5862	0.63	0.526	-.7771	1.5208
sizeofland	-.2101	.1604	-1.31	0.190	-.5246	.10441
hhassets	.00010	3.51e-06	2.93	0.003	3.41e-06	.000017
Cons	-8.780	1.737	-5.05	0.000	-12.185	-5.376
Number of observation	**237**					
LR chi2 (11)	**182.64**					
Prob > chi2	**0.0000**					
Pseudo R2	**0.5559**					
Log likelihood	**-72.95193**					

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From table-2 it is observed that income and employment generation activity is significantly influenced by five socio-economic factors namely, age (smeage) and annual income of the SHG member (smincome), income of member's husband (hincome), amount of loan and household assets (hhassets). Apart from these, educational status of husband (hedn) of the SHG member has near-significant impact on income and employment generation. From the table it can be inferred that log of odd ratio in favour of income and employment generation goes up by 0.078 units and .002 units if age of SHG member increases by one year and income of member goes up by one rupee respectively. Increase in husband's income has detrimental impact on log of odd ratio in favour of employment and income generation by 0.0002 units whereas one unit increase in household asset has small positive effect of 0.00001 units on log of odd ratio. Other socio-economic factors are found to be statistically insignificant.

CONCLUDING REMARKS

This paper examines the influence of some important social and economic factors on two qualitative variables, namely, decision of women members to participate SHG programmes and employment and income generation in two villages of Thoothukudi district of Tamil Nadu. Empirical findings suggest that participation and decision making by women members is positively influenced by large family size, income of the members as well as their husbands and number of meetings held by SHG whereas amount of loan granted and total household assets are found to affect the decisions making of women members adversely. In case of income and employment generation activities, age and income of the member, amount of loan and household assets have positive impacts but husband's income causes a detrimental effect. Policy measures which may encourage more participation of women in SHG and increase their income and employment can be suggested on the basis of empirical findings. Interventions of formal institutions like banks are welcome moves to penetrate rural part of the state and increase loan and credit accessibility to needy people. Number of meetings of SHG can be increased to reach the mass and make then understand about usefulness of such organizations.

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Dr. T. Saravanan
Assistant Professor, Post-Graduate Department and Research Center in Economics, AVVM Sri Pushpam College (Autonomous), Poondi , Thanjavur.

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