

Impact of Microfinance Programme in Empowering Women: Evidences from Self-Help Groups (SHGs) in Tamil Nadu

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ABSTRACT. *This paper tries to analyze the differential impact of two models of microfinance programmes viz., Non-government organization-led (NGO)-led and Government-led Self-help groups (SHGs) on socio-economic empowerment of the rural women between pre - and post-SHG period. Coimbatore (developed region) and Ramanathapuram (less developed region) districts in Tamil Nadu were selected for the study. Results revealed that there exist differences in the overall empowerment index between the less developed and developed regions under NGO-led SHGs, but no difference was observed under government-led SHGs in both regions. The variation in empowerment index under NGO-led SHGs might be due to the differential involvement of NGOs. An important policy relevant conclusion is that the microfinance programme has made stronger impact on socio-economic empowerment in the less developed region than in the developed region, probably because of low base level empowerment position in the less developed region across different linkage models. Hence, it is suggested that training be given to the members on awareness about education among children, self-confidence, communication and other skill development etc., and training may given for NGOs in order to enhance the role of SHGs by involving them in developmental programmes to have exposure on different developmental programmes.*

INTRODUCTION

Microfinance in Indian financial system is growing rapidly and getting increasing attention from financial institutions, non-governmental organizations (NGOs) and Government, as an instrument that can transform the lives of the poor. Microfinance took root in 1992-93 with the launch of Self-Help Group (SHG)-Bank linkage programme by the National Bank for Agriculture and Rural Development (NABARD). Around 32.98 million poor families being brought within the fold of formal banking services and 44362 branches of 545 banks were involved in extending credit to 22.39 lakh SHGs, disbursed about Rs.113.98 million (NABARD, 2006). Over 90 per cent of the SHGs comprise women's groups only. Grameen Bank (GB) of Bangladesh is one of the pioneers among microfinance institutions in the world. Microfinance aims at providing credit for self-employment and

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other financial services to poor and low-income clients for raising their income and improving living standards (Ledgerwood, 1999). In India, microfinance programmes have grown under two different systems of patronage *viz.*, SHG linkage programme anchored by NABARD has the patronage of the state and formal banking institutions and a parallel system promoted by non-state agencies depending exclusively on subsidized external grants to finance both social mobilization and on lending. Nevertheless, both of them target the poor and women only (Harper, 2002; Kroop and Suran, 2002). The joint liability, peer monitoring and group pressure that are built into the organizational structures (SHGs) are the key elements addressing the critical problems of screening, incentives and enforcement at reduced transaction costs to lenders. Distribution of repayment responsibilities over smaller and more frequent installments to the borrower has constituted innovation in lending technologies that facilitated timely and proper repayments (Hoff and Stiglitz, 1990).

REVIEW ON SHG LED MICROFINANCE

Most of the studies on microfinance highlighted that SHGs have inculcated saving habits among the poor (Kaladhar, 1997; Hashemi *et al.*, 1996). Availability of microcredit to poor through SHGs enables the rural households to take up larger productive activities, empower the poor women and decrease the dependence on moneylenders (Lathif, 2001; Khandker, 2000). SHG led microfinance proved that poor is bankable and poverty alleviation was possible without subsidies besides reducing transaction cost of banks and improving repayment rates (Karmakar, 1999; Khandker, 1998; Zeller *et al.*, 1997; Puhazhendhi, 1995). There are some reasons to expect certain social consequences other than economic impact of SHG led microfinance. One is that majority of the microfinance organizations work with poor women often from socially excluded groups. Second, relates to their group-based strategies. These hold out the possibilities of bringing about social change for the simple reason that people acting together are often able to achieve what they cannot achieve individually. This is true of the privileged sections of a society as it is of the marginalized find it harder to undertake the forms of collective action, which might help to address their social disadvantage.

Schuler and Hashemi (1994) and Deardon and Khan (1994) in their study concluded that the participation of women in microcredit programme had a positive and significant influence on women empowerment. The women who joined savings groups were qualitatively different in their thinking and in their behaviour from those who did not join the programme. SHGs had a positive impact on members in respect of self-confidence, social development and skill formation. Women empowerment had negatively associated with size of family, land holding and husband as head of household. However, women involvement in family decisions had enhanced after becoming the member of SHG. Channeling loans through women groups rather than individual women substantially increased the likelihood of female decision-making and bargaining in the case of loan use, money management and time and task allocation to income generating activities (Hovlet, 2005; Jothi *et al.*, 1999). SHG as an institution positively contribute to the socio-economic empowerment of rural poor and this programme was found to be better where NGOs act as a facilitator than the other linkage models (Puhazhendhi and Satyasai, 2001). Women empowerment both in economic and social front was one of the greatest opportunities opened up by development activities of microfinance programme by way of increased off-farm income (Manimekalai and Rajeswari, 2001). Microfinance has made significant improvement in food security, quality

of diet, access to clean drinking water, improvements in housing, reduction in infant mortality, enrollment of children in the schools especially girls etc., among the members of SHG (Kabeer and Noponen, 2004; Cortijo and Kabeer, 2004; Morduch and Haley, 2001).

OBJECTIVES

With this backdrop, based on a detailed study of the impact of microfinance on rural households in a less developed and developed region, this paper tries to analyze the differential impact of two different models of microfinance programme viz., NGO led and Government led SHGs on socio-economic empowerment of rural women.

DATA AND METHODOLOGY

To assess the impact of microfinance on socio-economic empowerment of women, two districts viz., Coimbatore and Ramanathapuram in Tamil Nadu were selected¹. According to the banking development indicators such as credit deposit ratio, per capita credit and per capita deposit etc., Coimbatore is considered as a developed district and Ramanathapuram is considered as a less developed district in Tamil Nadu state. Hence, Coimbatore and Ramanathapuram districts were considered as developed and less developed regions respectively for the present study. Two blocks per district were selected purposively based on the highest number of groups with more than three years of SHGs and linked with banks. In addition, two SHG-Bank linkage models were chosen for the study. The linkage models² (LM) are LM I: BANK-NGO-SHG (NGO led SHGs); LM II: BANK-(NGO+DRDA/MATHI)-SHG (Government led SHGs). Five SHGs per block in each model were selected and in each SHG, four members were selected randomly. In total, 140 members in two different linkages models were contacted for the study. The information related to the study was collected using well-defined and pre-tested questionnaire by personal interview method. The required data were collected during the months of July to November 2004. The functions of SHGs regarding savings, loan, bank linkage, etc., were collected up to August 2005 from the date of formation of group.

Impact of microfinance programme on empowerment of women

Government in both developing and developed economies pursue various forms of policy instruments in rural areas, but the effect of many of the most important policies is ultimately determined by the response of economic agents, whether households or enterprises in the private sector. This is particularly, so for policies designed to alleviate poverty and empowerment of rural population.

Conceptual framework

To study the impact of microfinance programme on rural communities, it is important to understand the borrowing behaviour of the households. The people in the rural area are mostly engaged in agricultural and non-farm activity for their livelihood. Due to low income and seasonality of employment, they go for borrowings from outside sources either formal or informal sources. Formal institutions do not provide loans for the poor members because their demand is mainly for consumption purposes and they may not be

able to provide collateral security for the loans. Hence, they depend on moneylenders for their credit need with high rate of interest and remain in the clutches of moneylenders. Due to the credit market imperfections, the rural poor remain inaccessible to the formal banking institutions. In order to reach the rural poor at the grass root level, banking institutions adopted group-lending approach.

In the present study, changes occurring in the SHG member households due to the microfinance programme was conceptualized as follows. In a household, at a given moment in time, the stock of family labour, land, own capital along with credit received from the self-help groups are used for farm and home production activities. The family labour is then allocated for own crop, livestock, off-farm and non-farm activities for earning income. The wages from off-farm and non-farm activities and returns from investment constitute the gross income. The income after deduction of various costs involved in production and repayment of loan generates net income, which permits the purchase of the means of consumption and production. The consumption of commodities includes the food, health, education and leisure. Means of production and consumption are derived from the household as both a production and consumption unit. This conceptual framework forms the basis of theoretical model.

Theoretical Framework

For the purpose of understanding the model of a household, a theoretical review of household models is essential and these models form the basis for analytical framework used in most of the empirical studies to investigate the behaviour of households. The household model was developed following the pioneering work of Becker (1965) on the theory of consumer choice. This approach was based on the observation that households derive utility from goods and services produced through combination of market purchased goods and household labour. In the present study, on one side, the household could be assumed as a producer of goods who combines purchased inputs, family labour time and borrowings from the SHG or bank as an input into a household production function to earn income for their family. The income earned from the self-employed activity, which is undertaken by the household is determined by many variables such as labour use in self-employment activity, which includes women as well as other members of the family, credit obtained from the SHG, age of the women etc. On the other side, these households are considered as consumers of own and purchased goods and leisure. The household consumption is influenced by income, size of the family, number of earners, etc. Again, family labour supply is influenced by several variables such as household income, wage rate, number of earners, number of infants in the family etc. Hence, household models incorporate both the consumption and production (income) aspects of the household decision-making process and capture the essential considerations underlying the allocation of family time between leisure and work (Singh *et al.*, 1986).

Women who participate in the microfinance programme can be able to get credit for taking up self-employment activities. In the study area, sample households were from agricultural labour, non-farm workers involved in petty business, mat making, charcoal business, small trade related activities such as sale of rice, vegetables, dry fish etc and off-farm activities such as rearing of cattle, sheep and goat etc. Very few of them belong to marginal farm households and they often work as wage labour in agriculture to supplement household income. After becoming member of SHG, they gained access to credit for taking

up new activities or improving their old activities for increasing their income. Hence, provision of formal credit influences the level of income and production of commodities, which in turn will affect the family labour allocation. Women entered into self-employed activity after becoming member of SHG. This leads to changes in family labour supply among the households. The changes in income and labour supply automatically lead to changes in the level of consumption too. Hence, provision of microfinance through self-help groups plays a key role in production, consumption and labour supply decisions of rural poor households, which leads to economic as well as social empowerment of rural poor women.

Empirical model

The role of microfinance in empowering the rural women was analyzed in terms of its role in improving the women's access to resources, assets and income at the household level. For this purpose data on various economic and social aspects such as income, asset position, savings, access to credit, behavioural changes, addressing village level issues etc. were collected.

The impact of microfinance programme on socio-economic empowerment of rural women was analyzed by using scoring technique. The development of indicators and scores were adapted from the study conducted by Puhazhendhi and Satyasai (2002). The economic and social indicators were used to calculate the economic and social empowerment index of rural women between pre and post SHG period (before and after joining the group) and the details are given below.

$$\begin{aligned} \text{The index of social indicators of household (S}_h\text{)} &= \sum S_i / \sum S_{i(\max)} \\ \text{The index of economic indicators (E}_h\text{)} &= \sum E_j / \sum E_{j(\max)} \\ \text{Combined index (i.e.) ESE index} &= W_1 S_h + W_2 E_h \end{aligned}$$

Where,

S_i, E_j represents i^{th} social and j^{th} economic indicator respectively.

$S_{i(\max)}, E_{j(\max)}$ are the maximum scores of i^{th} social indicator and j^{th} economic indicator

Weight W_1 is given by $W_1 = \sum S_{i(\max)} / \{ \sum S_{i(\max)} + \sum E_{j(\max)} \}$;

$W_2 = 1 - W_1$. The scores assigned for different indicators for preparing composite index are given in Appendix.

RESULTS AND DISCUSSION

Table 1 indicates that the average size of family was around 4.3 and less than four in less developed and developed regions across the models, which clearly indicates that the size of family in less developed region was higher than in developed region. It might be due to the fact that the population living in rural areas was higher in less developed region (75%) than in developed region (34%). Age of the women in SHGs was around 37 yrs showing that the middle-aged women represented the SHGs across models.

Table 1. General characteristics of sample households.

Particulars	LM I		LM II	
	LDR*	DR**	LDR	DR
Average family size (Nos.)	4.30	3.95	4.43	3.78
Age of the women (Yrs)	33.58	36.75	36.9	39.15
Literacy of women (No. of yrs)	6.63	7.05	4.73	5.10
% of scheduled caste to total members	40.00	5.00	45.00	12.50
% of female headed families	5.00	5.00	..	15.00
Landless households (%)	72.50	95.00	65.00	90.00

Note: LM I: BANK-NGO-SHG (NGO led SHGs), LM II: BANK-(NGO+DRDA/MATHI)-SHG (Government led SHGs), LDR: Less Developed Region; DR: Developed Region.

Women's education was up to middle school only irrespective of linkage models. Scheduled caste population accounted for 45% the total sample in less developed region irrespective of models and the share of female-headed family was five and 15% under LM I and LM II SHGs. It revealed that socially and economically backward people are likely to participate in this programme. Landless households accounted for the major share in the total sample irrespective of models. Households are classified based on more than 50% share of income from single activity to the total income (Table 2). It is observed that non-farm activity accounted for major share in the total income of household in both the models.

Table 2. Occupational classification of sample households.

Occupation category	LM I		LM II	
	LDR	DR	LDR	DR
Agricultural labour households	40	15	20	25
Non-farm households	53	70	60	50
Farm households	7	..	15	..
Households engaged in organized sector employment	..	15	5	25

Note: LM I: BANK-NGO-SHG (NGO led SHGs), LM II: BANK-(NGO+DRDA/MATHI)-SHG (Government led SHGs), LDR: Less Developed Region; DR: Developed Region. All values in %.

Impact on Employment, Income and Consumption

Table 3 indicates that the share of women in the total employment was 19% and 70% in less developed and developed regions respectively under LM I, whereas it was

around 50% in both the regions under LM II. The additional employment generated through SHGs was around 195 and 128 mandays/yr in less developed and developed regions under LM I, whereas it was 293 and 231 mandays/yr under LM II, respectively. The women's share in the total employment through SHG activities was found to be 50% to 65%.

Table 3. Employment details of member households in linkage models

Activities	LM I		LM II	
	LDR	DR	LDR	DR
Wage earning	186.19	268.89	251.87	225.38
Crop production	7.38	7.75
Livestock	14.01	23.69	13.31	1.14
Sub total	207.52 (18.64)	292.59 (69.54)	272.94 (48.23)	226.52 (49.54)
From SHG	194.53	128.17	293.00	230.75
Total	402.1	420.75	565.94	457.27

Note: LM I: BANK-NGO-SHG (NGO led SHGs), LM II: BANK-(NGO+DRDA/MATHI)-SHG (Government led SHGs), LDR: Less Developed Region; DR: Developed Region. Values in mandays/yr. Figures in parentheses indicate the share of women (%) in total employment.

The mean employment and income between models and regions were analyzed using “t” tests and the results are presented in Table 4. The mean employment under LM I was significantly higher than in LM II (103 mandays/yr). Members in less developed region under LM II received 162 mandays/yr higher than LM I whereas there is no significant difference is observed in developed region between LM I and II. It revealed that there exists significant difference in employment among the linkage models and between models in less developed region. It shows that participation in SHGs improve the employment opportunities among the member households through microfinance programme.

Table 4. Mean employment and income among sample households

Details	LM I	LM II	LDR		DR	
			LM I	LM II	LM I	LM II
Employment (mandays /yr)	512* (2.73)	409	403	565* (-3.24)	421	458 (-0.71)
Income (Indian Rs./yr)	39985	37208	34982	34188	40288	49988

Note: LM I: BANK-NGO-SHG (NGO led SHGs), LM II: BANK-(NGO+DRDA/MATHI)-SHG (Government led SHGs), LDR: Less Developed Region; DR: Developed Region. Figures in parentheses indicate the ‘t’ values
* Indicate significant at p = 0.05.

Mean income between models and region shows no significant difference among member households. Though there is an absolute difference in income among the households between models and regions, it is not statistically significant. Hence, it is inferred from the result that though the SHGs has made significant impact on employment generation, the income of the households has not increased significantly among the member households.

Per capita consumption expenditure (Table 5) was Indian Rs.525 and Rs.628 in less developed and developed regions, respectively. Of which, 66% was spent on consumption of food commodities in less developed region whereas around 59% was spent on food in developed region. The mean per capita consumption expenditure on food, non-food and total consumption between regions were analyzed using 't' tests and it indicated that the per capita food consumption among member households is statistically significant between regions, *i.e.* the per capita expenditure on food consumption among member households was higher in developed region than in less developed region.

Table 5. Consumption expenditure by member households

Particulars	LDR	DR	All
Food consumption	346 (65.84)	369* (58.80)	356 (62.49)
Non-food consumption	179 (34.16)	259 (41.20)	214 (37.51)
Total consumption expenditure	525 (100.00)	628 (100.00)	570 (100.00)

Note: LDR: Less Developed Region; DR: Developed Region. Values in Indian Rs. Per month per capita. Figures in parentheses indicate the per cent of total. * indicates significance at and P = 0.10.

Household Assets

Table 6 shows the changes in the asset ownership between pre and post SHG period. Livestock ownership in post SHG period was increased to 65% and 5% in less developed and developed region under LM I, whereas the same was 15% and 12.5% under LM II respectively. It shows that the livestock ownership among member households has increased and the magnitude of change was high in less developed region across models in the post SHG period.

Members in SHG transformed their houses from thatched / tiled roof to concrete houses in post SHG period. Twenty and five per cent of households in less developed and developed regions improved their old houses under LM I respectively whereas, only five per cent was observed in both the regions under LM II. It was found that more than 50% of the member households in both the models and regions possessed tiled houses prior to group formation except less developed regions in LM I. Access to material goods such as television set, mixer, grinder and gold ornaments increased by 40% and 32.5% in less developed and developed region under LM I, whereas the same was 10% and 17.5% under LM II respectively. The possession of LPG gas has increased from two to 5% in both the regions across models. Overall, the results revealed that the SHGs had made stronger impact on improving the quality of life to the rural households and this is inconsistent with the results of Morduch and Cortijo and Kabeer (2004) and Haley (2001).

Table 6. Assets ownership in sample households –Pre and post SHG period*

Particulars	LM I				LM II			
	LDR		DR		LDR		DR	
	Pre SHG	Post SHG	Pre SHG	Post SHG	Pre SHG	Post SHG	Pre SHG	Post SHG
Livestock ^a	7.5	72.5	25.0	30.0	5.0	20.0	30.0	42.5
Housing	..	20.0	..	5.0	..	5.0	..	5.0
Material assets ^b	5.0	45.0	12.5	45.0	..	10.0	20.0	37.5
LPG Gas connection	..	2.5	5.0	5.0	15.0	20.0	10.0	12.5

Note: All values in %. ^a includes milk cows, calves and sheep/goat; ^b includes television set, mixie, grinder, steel items and gold ornaments. LM I: BANK-NGO-SHG (NGO led SHGs), LM II: BANK-(NGO+DRDA/MATHI)-SHG (Government led SHGs), LDR: Less Developed Region; DR: Developed Region. * Pre-SHG – Before joining the group; Post –SHG –After joining the group.

Table 7. Economic and social empowerment index - Pre and post SHG Period ^a

Index	LM I				LM II			
	LDR		DR		LDR		DR	
	Pre SHG	Post SHG	Pre SHG	Post SHG	Pre SHG	Post SHG	Pre SHG	Post SHG
Social Empowerment Index	12.51	52.63	16.23	43.68	13.12	51.97	20.13	51.05
Economic Empowerment Index	21.37	49.52	30	35.32	22.02	36.53	25.56	39.44
Overall Empowerment Index	13.25	50.7	18.6	38.5	13.36	42.4	15.85	43.85

Note: LM I: BANK-NGO-SHG (NGO led SHGs), LM II: BANK-(NGO+DRDA/MATHI)-SHG (Government led SHGs), LDR: Less Developed Region; DR: Developed Region. * Pre-SHG – Before joining the group; Post –SHG –After joining the group.

Economic and Social Empowerment of Women

The economic and social empowerment index provided in Table 7, indicates that the social empowerment index was increased to a maximum of 30 and 28 per cent in less developed and developed region under LM I whereas under LM II, it was increased to 40 and 30 per cent respectively during the post SHG period. It showed that the women in less developed region were socially empowered than the women in developed region in both the models.

The changes in economic index was found to be 28% and 5% under LM I in less developed and developed region whereas under LM II, the same was 15% and 13%, respectively. This shows that economic index in less developed region was high compared to developed region under both the models during post SHG period. The overall empowerment index revealed that the magnitude of change was 38% and 20% in less developed and developed region under LM I whereas under LM II, increase in empowerment index was 28% in both the regions during post SHG period. The variation in socio-economic empowerment index under LM I could be attributed to the differential involvement of NGOs in educating the women members socially and economically in taking up income-generating activities. In case of LM II, there was no difference in socio-economic empowerment of women between the regions. This is mainly because all the NGOs operating under the SGSY scheme will follow the rules and regulations throughout the state uniformly. The result is in consistent with the findings of Schuler and Hashemi (1994); Deardon and Khan (1994); Puhazhendhi and Satyasai (2001) that SHG led microfinance programme has positive impact on social and economic empowerment of rural women.

SUMMARY AND CONCLUSION

An important policy relevant conclusion is that the microfinance programme has made stronger impact on socio-economic empowerment of women in less developed region than in the developed region, probably because of low base level empowerment position in the less developed region prior to group formation. Moreover, there exists a difference in socio-economic empowerment of women across different linkage models. Hence, it is suggested that training may be given to the members on awareness about education among the children, self-confidence, communication and other skill development etc., and training may be given for NGOs in order to enhance the role of SHGs by involving them in developmental programmes to have exposure on different developmental programmes.

NOTES

¹ In Tamil Nadu, 1.50 lakhs of SHGs had been linked with bank for about Rs.9314.25 million as on March 2004. SHGs linked with bank in all the districts were grouped into two viz., one with more number of groups and the other with less number of groups under SHG linkage programme to the state average. Coimbatore was selected randomly to represent the district with less number of SHGs linked with bank; Ramanathapuram represent the district with more number of SHGs under linkage programme.

² In LM I, SHGs were formed by the NGOs and they were directly linked with banks whereas in LM II, District Rural Development Agency (DRDA), Mahalir Thittam (MATHI) and Block Development Officials were involved in providing training and linking of groups with banks along with NGOs. LM II is the Swarnjayanti Gram Swarozgar Yojana (SGSY) programme launched by Government of India in 1999 aims at SHG formation, social mobilization and economic activation through microfinance.

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APPENDIX

Scores assigned to different indicators for developing composite index

Economic Indicators	Score values						
	0	1	2	3	4	5	6
Asset value ('000)	<5	5-10	11-15	16-25	25-50	56-75	> 75
Income ('000)	<10	10-25	26-50	50-75	75-100	100-125	>125
Per capita Expenditure (Rs.)	150	151-200	201-300	301-400	401-500	501-600	>601
Saving ('000)	< 1	1-2	2-3	3-4	4-5	-	-
Loan amount ('000)	< 2.5	2.5-5	5-10	10-15	16-25	26-50	>50
House type	Thatched 0		Rented tiled 1		Owned tiled 2		Concrete 3
Social indicators					Score values		
Self confidence							
Whether the respondent is confident of meeting financial crisis in the family or not					No = 0 ; Yes = 1		
How is the treatment of the family members (especially husband) to the respondent?					Usual = 0 More respectful = 1		
How many officials she met and spoke to?					None =0 ; up to 2= 1; 2-4=2; >4= 3		
How does she communicate in the meetings?					Hesitates to talk =0; Talks only if asked=1 Sometimes talks= 2; Freely talks = 3		
Reactions to social evils							
Do you feel like protesting the husband beating the wife , drunkards, gamblers					Resist=1; Lodge complaint in the group =2 Complaint to relatives =3 Warns = 4		
Addressing issues: Health, water supply, sanitation							
Getting ration cards, Village roads Transport, Schools / Balwadis for children Water supply, Sanitation within the village Other issues					No = 0 ; Yes = 1		

Source: Adapted from Puhazhendhi and Satyasai (2002).