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## Can Heterogeneity and Social Cohesion Coexist in Self-Help Groups?: An Evidence from Group Lending in Andhra Pradesh in India

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### I

#### INTRODUCTION

There is resurgence of interest on the *modus operandi* of micro-credit institutions in delivering various credit services to poor women and other vulnerable sections of the society to enable them to create self-employment based on their skill and uplift their economic living standard. Micro-credit as an alternative source of credit for the poor has received wide attention in recent years. It is defined as "programs that provide credit for self-employment and other financial and business services (including savings and technical assistance) to very poor persons" (World Bank, 1997).

Micro-credit institutions evolved their own design features such as class eligibility for membership in the group ranging from landless to minimum land holdings; prior entrepreneurial experience to no requirement of entrepreneurial experience; monthly repayments to weekly repayments; individual lending to group based lending; requirement of collateral to no-collateral; and group lending contracts to no-group lending contracts (see Morduch, 1999 for variations on design features of different micro-credit institutions in the world). These institutions remain most successful ones in terms of (a) outreach and performance in delivering credit services to the poorest of the poor women and small artisans in the rural and urban areas; (b) reduction in adverse selection of borrowers; (c) development of collateral substitutions; (d) offering cost effective approaches to formal institutions (Yaron, 1994; Besley, 1994); (e) behavioural outcomes such as non-land asset holdings by women, male and female labor supply, household expenditure and boys and girls schooling (Pitt and Khandker, 1998), and (f) empowerment of women (Kabeer, 2001).

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The group formations under micro-credit institutions are based on a growing institutional concept in terms of resources and management skills of the women members to reduce the gender inequality and to increase their confidence to get involved in issues and programmes in the public and private spheres. The success of group lending is attributed to various factors such as the ability of the group to mitigate asymmetric information problems in the credit markets through active screening of members (Wenner, 1995); information advantage of the groups about the applicant's creditworthiness (Zeller, 1994); social cohesion and heterogeneity of asset holdings (Zeller, 1998); self-selection or assortative matching of members (Ghatak and Guinnane, 1999); social ties between borrowing group members (Floro and Yotopoulos, 1991); group pressure to repay the loans (Besley and Coate, 1995; Paxton *et al.*, 2000); and peer monitoring through intra-group insurance (Wydick, 1999). For review of micro-credit performance and evaluation of self-help groups respectively in the Indian context (see Desai, 2000; Puhazhendhi, 2000).

### *Sample Selection*

Since self-help groups (SHGs) do not have a legal status and in order to reduce the risk of failure from the bank's point of view, the Rastriya Seva Samithi (RASS) at Tirupati (Andhra Pradesh) in South India has acted as an intermediary between SHGs, on the one hand, and National Bank for Agriculture and Rural Development (NABARD), Rastriya Mahila Kosh (RMK), Small Industries Development Bank of India (SIDBI), and Housing and Urban Development Corporation (HUDCO), on the other. As a change agent, the RASS helped the groups in identifying the joint economic activities, advising on the methods to be adopted for mobilising the savings from members, suggesting suitable terms and conditions for using the savings of the poor and in determining the credit priorities and guiding them in keeping proper records. The RASS prepares feasibility reports on the loan proposals and after sanction guides the SHGs in post-loan follow-up and supervision and also in the recovery of loans. The RASS conceptualised SHGs especially among the Integrated Child Development Scheme (ICDS) target families in the Tirupati urban areas in the beginning of 1990s.

### *Functional Committees*

The advisory and loan committees comprise two elected representatives of SHGs from each cluster for a one-year term. These two committees oversee the technical, HRD inputs and financial transactions, loan utilisation, repayment, asset creation and group monitoring.

### *Selection of Sample SHGs*

Since 43 per cent of 1,082 SHGs under 117 clusters and 41 per cent of 12,506 members under RASS are concentrated in Tirupati and its surrounding areas, random

samples of 30 SHGs were drawn from eight clusters in the Tirupati areas. Both primary and secondary data were utilised to analyse the SHGs. The field study was conducted during December 2000 to January 2001 and the reference period of SHGs under study was financial year from April 1999 to March 2000.

This study is organised as follows: In Section II, age and size of SHGs along with a brief discussion on the socio-economic conditions of 355 members of 30 women SHGs under Rastriya Seva Samithi at Tirupati in the state of Andhra Pradesh are given. In the third section, intermediate performance measures of 30 SHGs in terms of saving mobilisation, lending operations, sources of finance, recovery, etc., are discussed. In the fourth section, due to missing information on certain variables for five SHGs, two regression models were specified for 25 SHGs to find out the major determinants of (i) SHG net income per member and (ii) average monthly income of members in SHGs. The equations were estimated with qualitative and quantitative variables on the right hand side. The final section provides the summary and conclusions.

## II

### CHARACTERISTICS OF SHGs AND SOCIO-ECONOMIC CONDITIONS OF MEMBERS

#### *Size of Groups*

The number of members in the selected SHGs ranged from 8 to 16 with the average being 12 members. Disaggregated analysis indicated that 48 per cent of the groups had less than 11 members; 20 per cent of the groups had 12 members and 32 per cent of the groups had more than 13 members. As per the age of the SHGs is concerned, 43 per cent of the SHGs are less than two years old and 57 per cent of them are six years old.

#### *Caste Composition of Members in the SHGs*

Caste composition of members in the SHGs may indicate the level of homogeneity of the group. At the aggregate level, 60 per cent are backward class members; 34 per cent are other caste members; and 6 per cent are scheduled caste members. The frequency distribution of SHGs according to the percentage of members classified under castes showed that 21 SHGs had more than 50 per cent of the members from the backward class; of which six SHGs predominantly composed of backward class members; nine SHGs have less than 50 per cent of members from the backward class.

The scheduled caste members are found only in five SHGs. In four SHGs their percentage share is less than 20 per cent and in one SHG, their percentage share is greater than 80. Other caste members are found predominantly in four SHGs; 50 to 60 per cent of the members belonging to other caste members are found in three SHGs.

### *Educational Levels of Members*

While the level of education among the members in the SHGs may influence the level of awareness and understanding of the management aspects of SHGs, the higher level of participation of the members in the SHGs shows that the level of education is not a pre-requisite in the initial stage of the SHGs. Of the 355 members studied under 30 SHGs, 33 per cent of the members have no formal education. About 28 per cent of the members had completed the elementary education up to 5th standard; 18 per cent of them up to 10th standard; 17 per cent of the members are up to middle level, i.e., 8th standard. Only about 4 per cent of the members had reached more than higher secondary level. From these figures, it may be said that absence of formal education does not come in the way of working of SHGs.

### *Heterogeneity of Occupations among Members*

An understanding of the occupational distribution of members is important in order to have an idea about the heterogeneity of group members in the SHGs and consequent income distribution. Almost all women members are self-employed. The classification of SHGs according to the percentage of members in the occupation showed that in 22 SHGs, the percentage share of people pursuing the same occupation is less than 50. Only in eight SHGs, a significant proportion of members are in similar business. Thus one can conclude that occupationwise there is no homogeneity among and within SHGs. It is known that the dominant occupations of members are in maintaining tiffin stalls, tailoring, selling vegetables, milk, sacred thread making, etc.

### *Income Distribution*

Given the nature of business activities in which the members of the SHGs are involved, the income levels would reflect the nature of their occupations discussed in the previous paragraph. The average income of the members is about Rs. 496 per month. It is known that 47 per cent of the sample members have an income less than Rs. 450 per month each and 21 per cent of the members have income with Rs. 500 per month each. Thus 68 per cent of the sample members have income less than Rs. 500 per month each. Further, 24.90 per cent of the members are in the income range of Rs. 600 to Rs. 900 per month and only about 8 per cent of the sample members are in the income range of Rs. 1,000 to Rs. 2,000.

### *Social Ties among Women Members*

The social ties imply homogeneity of the group in terms of sex composition and years of familiarity of members to each other. The tendency to remain united among women members is expected to be much stronger in SHGs if they were well acquainted for a long period before they could join the groups. The members said that

they were familiar with each other for 8.2 years, suggesting they were aware of members' nature of business activities and behaviour even before they joined the SHGs. A stronger acquaintance among members is assumed to guarantee repayment of loan borrowed from the SHGs by avoiding adverse selection of borrowers and mis-utilisation of borrowed loan.

#### *Group Pressure in the SHGs*

It is important to know the perceptions of members on the type of group pressure on the performance of members in the SHGs. Higher performance of the SHGs is assumed to be related to strong group pressure. In fact group pressure may take different forms such as group members caring for any member who fails to repay, moral obligation of members to repay and members' feeling for repayment to stay on in good terms with the SHG. On an average, 80 per cent of the members said that they would be willing to put group pressure for achieving higher performance levels.

#### *Average Distance between Members in the SHGs*

Closer proximity among members adds an advantage to them in the sense that they could convene group meetings at any time they like. Closer proximity among members is expected to reduce the transaction cost of members and contribute to the lower opportunity cost of time. Peer monitoring of members' businesses is found to be successful only when the members live in nearby areas. The members said the average distance among them is less than half km.

#### *Mutual Insurance among Members in the SHGs*

Mutual insurance among members in times of difficulties of repayment is said to characterise successful SHGs. Mutual insurance not only helps a defaulter to repay the loan; it helps the group as a whole to avail of loan in future. On an average, 66 per cent of the members agree that they help each other with repayment in times of difficulty.

### III

#### INTERMEDIATE PERFORMANCE MEASURES

##### *Mobilisation of Resources by SHGs*

The loan amount of Rastriya Mahila Kosh (RMK) to the individual SHGs is routed through Rastriya Seva Samithi (RASS). On an average, the RASS has provided Rs. 18,284 per SHG. The RMK's contribution is marginally higher at Rs. 19,893 per SHG. The percentage share of saving in the total loan provided by the SHGs comes to only 47.45, indicating dependence of the SHGs on the external agencies for lending operations.

### Group Savings

The savings by group members per month are fixed. But there is no ceiling on the amount of saving by a member per month. The average saving per member was Rs. 874 per annum. In fact high variation in the average saving per member per group can be attributed to the size of SHG. There are many SHGs with membership of less than 12 members with consequent impact on the group saving. In addition to the regular monthly savings, groups were implementing special saving schemes which are surplus saving above the minimum fixed by the SHG at their own willingness. The surplus savings are encouraged in anticipation of expenditure during festival times. On an average, the special saving per member comes to Rs. 584 per annum. The correlation between the age of the SHGs and the average special savings per member is 0.413 that is statistically significant at 0.05 level. On the amount of savings by members, interest at the rate of 6 per cent per annum compounded biannually is paid. The date is fixed for the payment of group savings. In case of delayed payment of group savings, penalty is being levied at the rate of Rs. 10 per person. From the inception of SHGs, members have developed saving habits as the cumulative savings figures clearly show. The cumulative saving per member comes to about Rs. 1,458 (see Table 1 for other details).

TABLE 1. DESCRIPTIVE INFORMATION ON INTERMEDIATE MEASURES OF SUCCESS

Variables (1)	Number of SHGs (2)	Minimum (3)	Maximum (4)	(Rs.)	
				Mean (5)	Standard deviation (6)
Average saving per member	30	444.81	1,555.69	874.00	342.00
Average special saving per member	30	0.00	3,090.31	584.12	623.89
Cumulative saving per member	30	647.69	3,535.12	1,457.72	676.44
Cumulative special saving per member	30	69.36	2,001.75	704.53	472.71
Average consumption loan per member	25	0.00	19,000.00	1,997.43	3,792.46
Average business loan per member	25	0.00	14,850.00	3,859.52	3,138.67
Average loan for settlement of old debt per member	25	0.00	14,299.57	2,535.64	3,583.25
Average loan per member	25	1,400	15,953.00	5,340.29	3,874.93
Average contingency expenditure loan per member	25	0.00	5,292.69	1,847.27	1,495.93

### Rate of Interest on Loans

The RMK provides loans to RASS at the rate of 8 per cent and which is passed on to the SHGs at the rate of 12 per cent with a margin of 4 per cent to RASS. The SHGs pass on the loans to members at 12 per cent interest rate. In addition, the SHGs collect additional one per cent interest per month from members in order to develop the core fund for SHGs for the purpose of training and visits. Thus the

nominal interest rate comes to 24 per cent per annum for members. The SHGs charged a uniform interest rate of 24 per cent, irrespective of the loan amount. Repayments of loan per month for a number of months are fixed. The repayment of loan starts in the following month of loan disbursal.

### *Lending Norms*

It is learnt from the members of SHGs that some members borrow a huge amount of money from SHGs for various domestic purposes such as gas connection, water and sewerage connection and repairing of house and house construction. A large number of borrowers utilise loans for business purposes such as setting up fancy stores, beverage selling, snack stalls, leaf making, fruit stalls, selling of milk, dairying and so on. There are also cases where two members in the spirit of partnership join together and undertake joint businesses insuring each other. The members generally agree to divide group loans on rotations on the basis of consumption/business priority without involving themselves in conflict when all are in need of loans. The decision-making powers are rested with the members. The eligibility criteria for group loans are that a member should have saved more than eight months continuously. The early case of default in repayment had led to the development of promissory note by means of which the husband of a wife who is borrowing from the group, has to countersign the loan application for surety so as to avoid any recurrence of such problems of moral hazard of the borrowers.

The maximum repayment period for the group loan is fixed at 24 months. In extreme cases, if the group loan is not repaid in a particular month, at least interest due should be paid for that month. Discussion with the members showed that the group pressure would be brought forth though not amounting to coercion, on the defaulting members. The interest rate charged did not vary among the groups. Though members showed maturity in running the organisation and are entrusted with power in fixing their own rate of interest, and aware of using it as regulatory tool for rationing credit, they do not want to cause much inconvenience to their members by hiking interest rates.

### *Purposewise Distribution of Loan per Member*

The SHGs provided loans for the purpose of business, consumption, loan for settlement of old debts and loans for contingency purposes such as for medical expenditure and children's education. The distribution of loan per member, on an average, was Rs. 5,340 per annum. The average annual consumption loan per member was higher for larger sized SHG compared to smaller sized SHG. The average, consumption loan per member was Rs. 1,997 during 1999-2000 (Table 1). The estimation of correlation between the age of SHGs and the average consumption loan per member showed statistical significance. The average business loan per



member came to Rs. 3,859. The estimation of correlation coefficient between the age of SHGs and the business loan per member showed no statistical significance.

The average loans for the settlement of old debts came to about Rs. 2,536 per member. The estimation of correlation between the age of SHGs and loan for the settlement of old debts was statistically significant at 0.05 per cent. The average loan per member for contingency purposes such as health and for children's education came to Rs. 1,847. Matured SHGs had provided more loans per member for contingency purposes as can be seen from the statistical significance of correlation coefficient of 0.58 at 0.01 per cent level. It is clearly known that loans utilised for business purposes come out very significantly (58.88 per cent), followed by loans for other contingent expenditure (17.29 per cent), loans for settlement of old debts (11.18 per cent), and loans for consumption (12.64 per cent). Similar percentage shares are found for cumulative consumption loan, business loan, loan for settlement of old debt and loan for contingency purposes (see Table 2).

TABLE 2. BUSINESS PERFORMANCE OF SELF-HELP GROUPS UNDER RASS

Variables (1)	Number of SHGs (2)	Minimum (3)	Maximum (4)	Mean (5)	Standard deviation (6)
Percentage of consumption loan to total loan	25	0.00	48.71	12.64	10.81
Percentage of business loan to total loan	25	15.48	88.70	58.88	19.09
Percentage of debt loan to total loan	25	0.00	44.91	11.19	12.37
Percentage of contingency loan to total loan	25	0.00	35.44	17.29	10.88
Percentage of cumulative consumption loan to total cumulative loan	25	4.26	50.90	20.95	14.07
Percentage of cumulative business loan to total cumulative loan	25	10.61	82.71	37.29	15.60
Percentage of cumulative debt loan to total cumulative loan	25	0.00	39.24	17.46	11.99
Percentage of cumulative contingency loan to total cumulative loan	25	6.09	45.81	24.29	11.54
Resources generated from outside the SHGs per member (Rs.)	25	0.00	8,272.73	3,078.09	2,089.70
Cumulative amount generated per member (Rs.)	25	0.00	6,483.98	1,894.12	1,688.72
Percentage of other income in the total income of SHG	30	0.00	35.47	2.57	7.43
Percentage of expenditure in total income of SHG	30	23.07	127.17	82.29	24.43
Percentage of share of saving in the total loan	30	3.73	116.54	47.45	33.07

### *Recovery Performance*

The repayment performance of the SHGs worked out to be 83 per cent as on March 2000. Discussion with the members on the repayment method revealed that in case of delay in the repayment of dues by any member, the causes for such default

were debated in the meeting and all the group members based on merit of the individual case approved necessary postponement of repayment instalment for that particular month for that individual. Members have suggested that high repayment is due to dynamic incentive system built into the SHGs, under which groups which had repaid the loan within a stipulated time period are eligible for enhanced loans in the subsequent period. In the sample a number of SHGs have obtained enhanced loan amount. This dynamic incentive system reinforces the confidence of the members and their continued business relationship with the groups.

### *Income to SHGs*

Incomes to SHGs composed of penalty fee collected from the members on account of default of repayment in time, fine on account of non-attendance of members in the meetings convened by the SHG, interest earned on the surplus fund lent to other SHGs, grants received from the external sources such as municipal authority, non-governmental organisation (NGO) and so on. On an average, the SHGs have reported Rs. 226 as income with the maximum reaching Rs. 3,314 for some SHG. The percentage share of other income in the total income of the SHGs came to 2.57 per cent only. The expenditure of SHGs came to on an average Rs. 10,644. The percentage share of expenditure in the total income of the SHGs was 82.29 per cent.

### *SHG Net Profit per Member*

In the ultimate analysis, net profit per member is calculated as interest earned + other income minus interest paid + expenditure incurred by the SHG. On an average, the SHG's net profit per member showed a loss of Rs. 72.45. However, this figure masks a lot of variation within the groups. The break-up figure of 30 SHGs showed that 15 SHGs incurred losses per member ranging from as low as Rs. 47.75 to as high as about Rs. 1,448.92 (Table 3). The average loss per member for that group of SHGs is Rs. 331.68 with standard deviation of Rs. 431.48. The remaining SHGs registered positive net income per member ranging from Rs 12.90 to Rs. 533.94. The average net profit per member for other group of 15 SHGs came to Rs. 186.80 with standard deviation of Rs. 194.47.

TABLE 3. BASIC INFORMATION ON THE MEMBERS

Variables	Number of SHGs	Minimum	Maximum	Mean	Standard deviation
(1)	(2)	(3)	(4)	(5)	(6)
Average member's income in the SHGs (Rs.)	30	228.57	745.00	495.81	148.79
Coefficient of variation of income of members	30	113.27	3,579.73	510.03	632.79
Average educational levels of members	30	0.27	2.00	1.05	0.43
Coefficient of variation of education of members	30	42.17	314.76	169.14	91.12
SHG net income per member (Rs.)	30	-1,448.92	533.94	-72.45	421.50

## IV

## REGRESSION ANALYSIS OF SAMPLE SHGS

In this section, an attempt has been made to assess the impact of SHGs on the income levels of members. Accordingly, two regression models were specified to find out the major determinants of (a) SHG net income per member and (b) average monthly income of members in SHGs. The two equations were estimated with qualitative and quantitative variables on the right hand side.

*Determinants of SHG Net Income per Member*

In the regression model I (Table 4), dependent variable is SHG net income per member which is defined as interest received + other income minus interest paid + total expenditure per member. Independent variables are (i) average distance between members in the SHGs, (ii) resources generated in the current year from outside the SHGs, (iii) average educational levels of members in the SHGs, (iv) loan provided in the current year, (v) percentage share of SHGs' expenditure in the total income of SHGs, and (vi) age of the SHGs. The regression estimates showed expected signs for all but one variable, i.e., distance among members.

The estimate for resources generated from outside the SHGs showed that 1 per cent increase in the resources generated in the current year leads to a decrease of Rs. 0.11 in SHG net income per member. An increase in the average distance among members in the SHGs leads to an increase of Rs. 1.059 in SHG net income per member (Table 4). This result is contrary to expectation that distance is supposed to be minimal so as to maintain homogeneity and reduce the transaction cost of members in terms of travelling and opportunity cost of time for members.

TABLE 4. REGRESSION ESTIMATES: DEPENDANT VARIABLE:  
SHG NET INCOME PER MEMBER (MODEL I)

Variable (1)	Estimates (2)	T- value (3)
Intercept	-384.1213	-1.053
Average distance among members in the SHGs	1.059	2.725*
Resources generated from outside the SHGs	-0.111	-3.632*
Average education of members in the SHGs	318.113	1.974*
Loan provided in the current year	0.027	3.621*
Percentage of expenditure in total income	8.895	-3.554**
Age of SHGs	43.229	1.551

Adjusted R-square = 0.59.

Number of observations = 25.

Note: \* Indicates coefficient is significant at 5 per cent level of one-tail test.

\*\* Indicates coefficient is significant at 1 per cent level of one-tail test.

The estimate of average educational level of members in the SHGs shows positive contribution to the SHG net income per member. On an average, one year of additional education leads to an increase of Rs. 318 per member. Loan provided in the current year (consumption, debt loan, business loan and loan for contingency together) has contributed to the SHG net income per member positively. One rupee increase in the loan provided to the member results in an increase in SHG net income per member by less than one rupee. An increase in the percentage share of expenditure of SHG in the total income of SHG leads to more than a unit decrease in the SHG net income per member which is statistically significant.

Age of SHGs positively contributes to the SHG net income per member. However, this variable is not statistically significant. It is reasonable to expect that more years of existence of SHGs contribute to increased income per member through learning effect.

#### *Determinants of Average Monthly Income per Member*

In the regression model II (Table 5), average monthly income per member is considered as dependent variable. The independent variables are: (i) average number of years members are familiar to each other in the SHGs, (ii) group pressure on performance - percentage of people who said they exert group pressure in each group, (iii) HELP - percentage of people who said they help each other when they are in difficulty, (iv) percentage of business loan to the total loan per member in the current year, and (v) percentage share of SHG expenditure in the total income of SHG.

TABLE 5. REGRESSION ESTIMATES: DEPENDENT VARIABLE:  
AVERAGE MONTHLY INCOME PER MEMBER (MODEL II)

Variable (1)	Estimates (2)	T-value (3)
Intercept	636.105	6.066
Familiarity of members in the SHGs	26.468	2.401*
Group pressure on the performance in the SHGs	-6.162	-3.196**
Helping each other in the SHGs	3.320	1.956*
Average business loan per member in the current year	2.51	2.059*
Percentage of SHG expenditure in the total SHG income	-2.379	-2.514

Adjusted R-square = 0.32.

Number of observations = 25.

Note: \* Indicates that coefficient is significant at 5 per cent of one tail test.

\*\* Indicates that coefficient is significant at 1 per cent of one tail test.

In the regression model II, estimated results are on the expected line for all variables except for group pressure. The familiarity of members positively influences members' average income in the SHGs. Members pursuing different economic activities will have no incentive to involve themselves in competition. Heterogeneity

of occupations of members in the SHGs with familiarity increases the average income of the members. Another expected finding is that HELP (helping each other in times of difficulty) positively influences average income of the members. Though it is not statistically significant, its sign is a correct one. It indirectly reinforces the findings that members with different economic activities can help each other when they are in need.

An increase in the group pressure leads to a decrease in the average member's income. This finding is contrary to the expected one. While the variable (HELP) acts as a positive motivation for members, the group pressure does not bring about positive response from members and rather acts as a disincentive for the members to increase their average income. Given the educational and social background of people in the SHGs, stronger group pressure does contribute negatively to the average income of the members. Discussion with the members showed that mild group pressure is put only in exceptional cases especially when the members default in the repayment of loan.

An expected finding is that an increase in business loan per member leads to an increase in the average member's income. The coefficient estimate showed that one rupee increase in the loan per member leads to an increase in income by Rs. 2.51. This is a very significant finding from the point of view of micro-credit institutions and from the point of view of employment of women members. An increase in the percentage share of SHG expenditure in the total income of SHG leads to a decrease in the average income of the members by Rs. 2.30.

#### V

#### CONCLUSIONS

The SHGs were able to provide various credit services such as business loan, consumption loan, loan for settlement of old debt and loan for other contingency purposes to their members. The SHGs under study are characterised by heterogeneity in terms of social and economic indicators. The principle of self-selection by members in order to have social cohesiveness of the group which is widely discussed in the theoretical literature, is indirectly reinforced as members of SHGs were drawn from the Integrated Child Development Programme target families sponsored by the Central and State Governments. The success of SHGs in terms of high repayment is mostly related to the exploitation of prevailing social ties and social cohesion found among women members. Social cohesiveness among members spring not only from their diverse background of knowledge base, skills, occupations and income levels, but also due to the dynamic incentive system of progressive lending to the groups on the successful completion of loan repayment. However, SHGs are heavily dependent on external financial agencies for their lending operations. While it is not possible to achieve self-sufficiency of SHGs given their socio-economic status of members, a greater thrust should be given to internal resource mobilisation for viable and sustainable business operations in the future.

The long-term stability of SHGs depends on the members' loyalty to it and in turn the adequacy of SHGs to meet the growing needs of their members. Members' loyalty to SHGs will likely to undergo a transformation due to their inherent design feature of small size of the group and the limited saving capacity of marginal groups. With increased business turnover when the enterprise and activities started by SHG members become stable, the ability of their members to handle independently and progressively their economic affairs will increase. At the same time, the members' perception of increasing opportunity cost of involvement in the group activity would likely to contribute to their drop out from the SHGs. Another serious constraint would be that individual investments and working capital requirements are bound to exceed the capacity of SHGs to provide enough capital. In such likely situation, the members would try to establish direct business relationship with the banks or seek out sources of external fund for financing their projects. Another likely scenario is that where there is intense competition among the members pursuing similar occupations, non-co-operative behaviour with divergent interest will emerge to undermine the long-term stability of the group.

The regression estimate of SHG net income per member on the plausible variables showed that lesser dependence of SHGs on external resources, higher education of the members, higher loan provided in the current year and lower SHG expenditure contributed to the higher SHG net income per member. These findings are on the expected lines. The findings showed that an increase in distance among members results in higher SHG net income per member by reducing the level of risk facing SHGs. While it is reasonable to expect that minimal distance among members would lower the transaction cost of members in terms of lower opportunity cost of travel and time, the contrary finding may suggest that members drawn from distant areas pursuing different occupations are able to tide over risk of the group by their higher risk pooling capacity. In other words, those who live in distant areas on an average may not face the same type of risks unlike members who live in close proximity to each other who are exposed to similar risks. With reference to the determinants of the average income of the member per month, it is known that stronger social ties among members, increased business loan per member and lower SHG's expenditure contributed to the higher average income of the group member.

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