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The aim of the Journal is to promote studies on issues related to the microfinance sector in India and abroad in order to sensitise the policy makers, donors, researchers and others who are associated with the sector. The journal proposes to identify key problems and encourage debate in the microfinance sector on issues such as socio-economic empowerment, institutional arrangements and innovations in microfinance products with special focus on rural clients.

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C O N T E N T S

Indebtedness and Financial Inclusion Among the Tribal: An Experience of Woman Self-Help Group Member Households in Andhra Pradesh

- K. Raja Reddy* and TCS Reddy**

The study found that majority of the tribal households has accessed financial services from banks through SHGs and their federations. Nevertheless, nearly one half of the households are depending on informal sources that charge high interest rates, for larger loans, mostly for social needs of the households.

Abstract

In the recent years, community based microfinance is renowned as an instrument for financial inclusion and inclusive growth. The Self-Help Groups (SHGs) are linked to banks under SHG bank linkage programme to provide financial services to the poor and vulnerable sections for poverty reduction, and to reduce dependence on traditional sources, whose interest rates are over priced. In the tribal areas, majority of the households are away from formal financial institutions for varied reasons and mostly depend on traditional sources for credit. In this context, the present study is to know the indebtedness of tribal households, to assess the SHGs' contribution to household credit, to know the extent of dependence on traditional sources, to know the issues in accessing credit and to evolve strategies to reach the un-reached.

The study covers 189 households whose women members are enrolled with SHGs in 63 villages of 21 mandals/block in 7 integrated tribal development agencies (ITDAs) of Andhra Pradesh. Qualitative as well as quantitative data were collected by administering pre-tested interview schedule with household members, and focus group discussions with SHGs and their federation members. Fieldwork for data collection was carried out between October and November 2012.

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Key Words: Financial Inclusion, Self-Help Groups, Indebtedness, Community Based Microfinance and Formal & Informal Credit Sources.

The study found that majority of the tribal households has accessed financial services from banks through SHGs and their federations. Nevertheless, nearly one half of the households are depending on informal sources that charge high interest rates, for larger loans, mostly for social needs of the households. Further, the formal institutions could not succeed in meeting the credit demand of the SHG member households for a variety of reasons.

Introduction

Context of the Study

Access to finance by the poor and vulnerable groups is a prerequisite for poverty reduction and social cohesion. This has to become an integral part of our efforts to promote inclusive growth. In fact, providing access to finance is a form of empowerment of the vulnerable groups. Financial inclusion denotes delivery of financial services at an affordable cost to the vast sections of the disadvantaged and low-income groups. The various financial services include savings, credit insurance and remittance facilities. The objective of financial inclusion is to extend the scope of activities of the organised financial system to include within its ambit people with low incomes. Through graduated credit, the attempt must be to lift the poor from one level to another so that they can come out of poverty.

The poverty ratio in rural areas among the social categories, Scheduled Tribes exhibit the highest level of poverty (47%) followed by Scheduled Castes (SCs) (42%) and Other Backward Classes (OBC) (32%) against 34% for all classes (Planning Commission, Government of India, 2012). According to NSSO survey, 51% of farmer households are financially excluded from both formal /informal sources. Of the total farmer households, only 27% access formal sources of credit and one third of this group even borrow from other informal sources. About 36% of Scheduled Tribe (ST) farmer households are indebted mostly to informal sources (Rangarajan 2008).

According to the Society for Elimination of Rural Poverty (SERP) there are around 1.16 crore SHG members in about 11 lakh SHGs organised into 38,821 Village Organizations (VOs) and 1,099 Mandal Samakhyas (MSs) in Andhra Pradesh. Of the total SHGs, about 5.4 percent of SHGs covering 5.8 percent of members are in Tribal Project Management Unit (TPMU) areas. In addition to the above MSs, there are 262 Mandal Vikalangula Sangams (MVSs), 17 Chenchu Mandal Samakhyas (CMSs), 7 Fishermen Mandal Samakhyas (FMSs) and 20 Yanadi Mandal Samakyas (YMSs) in the AP. The total savings and corpus of SHG members as on March 2012 are around Rs.3,724 crore and Rs. 5,538 crore respectively.

To encourage the poor including disadvantaged groups and communities to access the credit services seamlessly Community Investment Fund (CIF) from project side, and linkages from bank side are provided to the poor women SHG members to improve their livelihoods. CIF supports the poor in prioritising livelihood needs by investments in sub-projects proposed and implemented by the Community Based Organizations (CBOs). The cumulative CIF expenditure up to March, 2012 is Rs. 1088 crore and the total numbers of beneficiaries are 29,94,227. During the financial year 2011-12, SERP has facilitated Rs. 7941.57 crore of bank loans to 3,48,449 SHGs (Annual Report 2011-12, SERP).

To address the issues of inadequate finance and to ensure timely availability of supplementary financial services for meeting emergency and emergent needs of the SHG members, Mandal Samakhyas in the State, in association with Government of AP have promoted "Sthree Nidhi" Credit Cooperative Federation Ltd. Sthree Nidhi is operationalised from October 2011 and Rs. 122 crore was lent to 94,000 SHG members from 30,041 SHGs of 10,116 VOs from more than 800 Mandal Samakhyas as on 5th June 2012.

According to a study conducted by APMAS in 2011-12, there is a wide disparity between regions, districts and mandals in the coverage of clients and the amount disbursed through Sthree Nidhi. The data on Sthree Nidhi disbursement shows that the TPMUs are also not exceptional to the above observation. The difference between the size of the loan accessed by SHGs with ST/SC members and that accessed by more advantaged groups had widened over the years (APMAS, 2007).

Objectives and Methodology

Objectives of the study: In the above context, the present study was initiated with a broad objective to assess the debt status and credit requirement of the tribal households in Andhra Pradesh. The specific objectives of the present investigation were: i) to know the socio-economic status of tribal households, ii) to assess the magnitude of household debts, iii) to know the SHGs' contribution to household credit, and iv) to know the issues in accessing credit from the formal financial sources including SHGs.

Research methodology – sampling design: The universe of the present study is the tribal households who enrolled membership with SHGs in all the nine Integrated Tribal Development Agencies (ITDAs). The present study has covered 189 SHG members of 126 SHGs in 21 mandals of seven ITDAs in Andhra Pradesh. Of the nine ITDAs in AP, seven were selected based on the number of SHGs and SHGs credit linked to banks. Based on the socio-economic diversity and location, three mandals were selected in each ITDA. Based on location, three villages – mandal/block head quarters, roadside and interior, were purposively selected. Within the village, two SHGs were randomly selected, and from each SHG, three members were randomly selected based on the availability of SHG members.

Data collection tools & fieldwork: Both qualitative and quantitative data was collected from primary as well as secondary sources through quantitative as well as qualitative data collection methods. Primary data were mainly collected from SHG member households by executing an interview schedule and focus group discussions with SHG members. Fieldwork for data collection was carried out from October 3-20, 2012.

Data analysis and structure of the report: The filled in formats were edited and coded before entering the data into a computer. Simple statistical tools like percentages, ranges and averages were computed by using a statistical package for social sciences (SPSS). To make comparisons and draw meaningful inferences, frequency and comparative tables were prepared. The findings of the study are presented as i) an overview of tribal Andhra Pradesh ii) socio-economic status of tribals, iii) access to credit, iv) extent of household debt, v) promotion of savings, vi) issues and problems in accessing credit and vii) conclusions and way forward.

An Overview of Tribal Andhra Pradesh

According to 2001 Census, the total tribal population of AP is 50,24,104. In AP there are 35 communities officially designated as Scheduled Tribes, in which, eight are recognized as primitive tribal groups (PTGs) are also known as 'Vulnerable Tribal Groups'. The STs of AP constitute 6.8 percent of India's tribal population. Although the state's STs comprise only 6.6 percent of the state's population, they account for the largest tribal concentration in southern India.

The scheduled areas of Andhra Pradesh, covered by the Tribal Sub-Plan (TSP) approach, are spread over 31,485 sq km in the districts of Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Warangal, Khammam, Adilabad and Kurnool. This zone forms the traditional habitat of 32 tribal communities. The other three tribal groups namely Lambada, Yerukala and Yanadi mostly live outside the scheduled areas.

In some districts tribal population is spread thinly and they live along with non-tribal communities. The indigenous tribes are mostly concentrated in contiguous tracts of the above districts that have been designated as scheduled areas administered by the ITDAs.

There are some one million ST households in the state and about half of them live in 5,936 villages in the nine ITDA areas. The scheduled areas are inhabited by an estimated 28 lakh tribals who are entitled to the benefits of TSP projects and protective legislations. In conformity with the national TSP strategy, Andhra Pradesh tribal population is divided into four categories: (i) those living in tribal concentration areas in the scheduled villages and adjoining areas, i.e., the TSP areas administered by ITDAs. Each of the above nine districts has one ITDA named after the tribal concentration block where it is headquartered; (ii) primitive tribal groups, i.e., communities who live in near isolation in inaccessible habitats in and outside the scheduled areas who are at the pre-agricultural stage of the economy; (iii) those living in small pockets outside the scheduled areas, i.e., Modified Area Development Agency (MADA) areas and tribal clusters; and (iv) Dispersed Tribal Groups, i.e., those dispersed throughout the state.

The data in Table 1 shows that as on December 2012, there are about 10.76 lakh SHGs in Andhra Pradesh. Of these, 57,868 SHGs are in ITDA areas. About 73% of SHGs are credit linked to banks in ITDA areas, is less than the state numbers (90%), and having a loan outstanding of Rs. 45,993 crore as on December 2012. The percentage of SHGs credit linked to bank is high in Eturunagaram with 93%, and low in Paderu with 39% when compared to other ITDAs. The percentage of SHGs credit linked to banks is high in Telangana region as compared to Coastal. It shows that there are regional disparities between ITDAs in credit linkage of SHGs to banks because of various regions. The average amount of loan outstanding with banks by the SHG is low with Rs. 1.08 lakh compared to the state average amount of Rs. 1.33 lakh. It shows that the SHGs in the tribal areas marginalised are marginalised in credit linking of SHGs to banks.

Table 1: ITDA-wise Number of SHGs Credit Linked to Banks as on December 2012

Name of ITDA	Total No. of SHGs	SHGs credit linked to bank	% of SHGs credit linked to bank	Amount of Loan Outstanding (in lakh)
1. Badhrachalam	15,109	12,236	80.9	14,969
2. Eturnagaram	4,155	3,856	92.8	4,420
3. Utnoor	12,674	10,224	80.6	12,304
4. Paderu	8,714	3,391	38.9	2,589
5. Parvathipuram	6,140	3,905	63.6	3,379
6. Rampachodavaram	4,436	3,546	79.9	2,252
7. Seethampet	6,640	5,199	78.3	6,079
Total	57,868	42,357	73.2	45,993
Andhra Pradesh	10,75,605	8,68,082	80.7	11,52,667

Socio-Economic Status of Tribals

Social Conditions

Ethnic composition: The sample households of the present study were covered about 20 out of 35 Scheduled Tribes (STs) in AP. The ITDA-wise coverage of tribes is as follows:

	ITDA		Tribe
i)	Paderu	:	Bagata, Kodu, Kotia, Kondadora and Valmiki
ii)	Rampachodavaram	:	Kondareddy, Koya, Savara and Valmiki
iii)	Seetampet	:	Savara, Kotia, Konda Reddy, Koya, Naikpodu and Valmiki
iv)	Khammam	:	Koya Naik Podu and Gond
v)	Eturunagaram	:	Koya, Lambada Naik Podu and Gond
vi)	Utnoor	:	Gond, Auanth, Kolam, Lambada and Manyawar
vii)	Srisailam	:	Chenchu, Lambada and Yerukala

Medium size households are numerically dominant: The household size varies between one and nine members with an average of four. A majority of the sample households are medium in size (65.1% with 4-5 members) followed by small (20.6% with <4 members) and large families (14.3% with 6 and above members). Most of households are of simple families consisting of parents and children, and in some cases one or two dependent members.

Female population is more than the male population: Of the total population of the households (1430), the female population is more (52.2%) than the male (47.8%). Further, it is also high when compared to the state (49.8%) and national facts (48.5%). The age of the household members shows that 71% are adults and the remaining (29%) are children. The total number of female children (53.1%) is more as compared to the male (47%). It indicates that the female infanticide or discrimination towards girl child is not found among the tribals.

Majority of the household members are working: Of the total household members, 54.6 percent are working and the remaining (45.4%) are non-working, those include children, aged and chronic diseased. It shows that there are many non-working/dependent members in the family. Of the non-working, if we presume that all the children (29%) are non-working, 16.4% of the adults are non-working in the families.

More female illiteracy: Majority of the household members is illiterate, and majority of them are female (59.9%) followed by male (40.3%). Of the literates, there is no difference between male and female among those who studied between 1st and 5th class; however, there is a noticeable difference in the educational levels of male and female among those who studied between 6th and 10th class (110/89) and college (73/53). The present study also confirms that the girl child drop-outs are more as compared to male because of various socio-economic reasons.

Vulnerability-persons with disability (PWDs): Out of 189, nine families have accounted about nine PWDs, in which five are male and four are female; and of the 12 families reported about 13 members chronically diseased, five are male and eight are female.

Economic Conditions

Majority of the households are residing in thatched and tiled houses: Of the 189 households, many are living in colony houses (29.1%), thatched houses (28.6%) and tiled houses (28.6%) followed by pucca houses (13.8%). It shows that a majority of the households (57.2%) are residing in thatched and tiled houses. It indicates the poor implementation of housing programme in the tribal areas, even though the Government of AP is very keen about it.

The incidence of migration is very minimal: Out of 189 households, 21 have accounted about migration, and many are from Seetampet (7 out of 27 households) and Srisailam (5 out of 27 households) ITDAs. However, except in Badrachalam, in all the ITDAs, one to two households reported about migration. Out of 21, 13 households have said that the male members go for work to nearby towns and the female take care of children and aged in the family. During individual interactions, the respondents have reported the reasons for migration as push factors like less availability of work at the village, and pull factors like more wages and availability of work outside the village.

Majority of the households are marginal and small farmers: Majority of the tribal households (79%) possesses one to five acres of land with an average of 5 acres per household. A majority of the households have dry/rain-fed lands and a few households possessed wet lands with some irrigation facilities. The data shows that many households possess less than 2.5 acres of land (44.4%) followed by 2.5 to 5 acres (24.9%) and more than 5 acres (9.5%). But more than one-fifth of them are landless. It reveals that majority of the tribal households are marginal and small farmers mostly depend on rain-fed agriculture.

Agriculture, labour and collection of non-timber forest produce (NTFP) are the major household economic activities: In general, the rural households engage in multiple economic activities. The data in Table 2 shows that many households' primary economic activity is agriculture (46%) followed by labour (34%); however, a few households' engaged as construction workers, forest labour, petty/seasonal business, jobs both in private and government sectors, traditional service occupations and collection of NTFP. In contrast to primary occupation, many households secondary occupation is labour (48%) followed by agriculture (24%). But, of the tertiary economic activities of the households, some are engaged in the collection of NTFP (12%). It shows that the major economic activities of the households are agriculture and labour. The general impression is that most of the tribal households' subsidiary economic activity is collection of minor forest produce (MFP) or NTFP. But at present, a tiny percentage of households are engaged in NTFP collection. During interaction, the respondents have reported i) non-availability of the produce in their vicinity, ii) problems with the forest department and iii) not profitable/not getting good prices in the market as reasons for less number of households engaged in NTFP collection.

Table 2: Economic Activities of the Tribal Households (% of HHs)

S. No.	Economic Activity	Primary (N=189)	Secondary (N=189)	Tertiary (N=189)
1	Agriculture	46	24	5
2	Labour	34	48	6
3	NTFP collection	1	6	12
4	Others	19	17	19

Access to Credit

Credit Sources

Multiple credit windows: The sources of credit that the sample households have been mobilising to cater credit needs can be broadly categorised into two - formal and informal sources. Of the formal sources, majority of the households have taken loans from SHGs under bank linkage programme (69.3%) followed by Village Organisations (VO) (32.8%), Sthree Nidhi (29.6%), SHG funds (22.2%), and agriculture loans from banks (13.2%). It shows that the sample households have taken at least one loan through SHGs from any one of the formal credit sources such as SHG funds, VO/MMS, Sthree Nidhi, SHG-bank linkage, and agriculture loans from banks. Further, a majority households that are away from banking services, have been accessed credit services through SHGs under SHG-bank linkage and housing programmes. Out of 189 households, 30.7% have taken loans from money lenders followed by friends and relatives (15.9%), traders (4.8%) and chits (1.6%). It shows that many SHG member households have been depending on informal sources for credit.

Multiple loans from formal and informal sources: The data shows that of the 189 households, except 4, all the households have taken 1-5 loans with an average of 2.2 from formal and informal sources. The households have taken a total of 416 loans of Rs. 85.92 lakh with an average loan of Rs. 20,457. A majority of the households have taken 1-2 loans (60.3%) followed by three and above loans (37.6%); however, 70% of the households have more than one loan. It reveals that the households accessed credit from multiple sources. Further, of the total 185 households reported debts, 53% of them have taken loans exclusively from formal sources, 3.2% exclusively from informal sources, and 42.9% from both formal and informal sources. It is evident that most of the households have taken at least one loan from formal sources (96.8%). Nevertheless, nearly half of the households depended on informal sources for credit.

Extent of Household Debt

Magnitude of household debt: All the households, except four, have taken a total credit of Rs. 85.92 lakh from formal (Rs. 36.94 lakh) and informal sources (Rs. 48.98 lakh) with an average of Rs. 46,443 lakh. The data in Table 3 shows that of the total households, many households (47.6%) have a loan amount of less than Rs. 25,000 followed by Rs. 26000-50000 (26.5%) and more than Rs. 50000 (24.9%). Interestingly, 17 (9%) out of 185 households have taken a loan of more than Rs. 1 lakh. There is no much difference between the percentage of households taken a loan of less than Rs. 25,000 from formal and informal sources. However, the percentage of households borrowed loan of Rs. 26,000-75,000 from formal sources (31.9%) is high as compared

Table 3: Source-wise Extent of Household Credit

S. No.	Loan amount in Rs	Informal		Formal		Total	
		F	%	F	%	F	%
1	< 25,000	56	63.6	114	63.7	88	47.6
2	26,000 - 50,000	14	15.9	42	23.5	50	27.0
3	51,000 - 75,000	6	6.8	15	8.4	19	10.3
4	76,000 - 1,00,000	5	5.7	4	2.2	11	5.9
5	> 1,00,000	7	8.0	4	2.2	17	9.2
	Total	88	100.0	179	100	185	100.0

to informal sources (22.7%). In contrast, the percentage of households borrowed loan of more than Rs. 75,000 from informal sources (13.7%) is high as compared to formal sources (4.4%). The average amount of credit (Rs. 41,977) taken by a household from non formal sources is more than 50 percent when compared to formal sources (Rs. 27,364).

Lion's share of SHGs to household credit: The data in Table 4 shows that of the total households' credit of Rs. 85.92 lakh, 57% of the amount is taken from SHGs and the remaining 43% is from informal sources. Of the total credit with SHGs, a major chunk is from banks under SHG-bank linkage programme (24.1%) and personal banking (10.5%) followed by VO (11.9%) and Sthree Nidhi (7.1%), and a petite portion from SHG funds. Of the total households' credit with informal sources of Rs. 36.94 lakh (43%), mostly from friends and relatives (19.4%) and money lenders (19.2%), and a very little portion is with traders (3.7%) and chits (0.7%).

Table 4: Source-wise Details of Loans and Amount

S.No.	Credit Source	F	%	Sum	%	Mean
A	Informal	100	24.1	3,694,000	43.0	36940
1	Friends & Relatives	30	7.2	1,669,400	19.4	55,647
2	Money lenders	58	13.9	1,649,600	19.2	28,441
3	Chits	3	0.7	60,000	0.7	20,000
4	Traders	9	2.2	315,000	3.7	35,000
B	Formal	316	75.9	4,897,946	57.0	15500
1	SHG funds	42	10.1	292,200	3.4	6,957
2	VO/MMS	62	14.9	1,024,780	11.9	16,529
3	Sthreenidhi	56	18.5	606,500	7.1	10,830
4	Bank linkage SHG	131	31.5	2,073,466	24.1	15,828
5	Personal Loans-Bank	25	6.0	901,000	10.5	36,040
	Total	416	100.0	8,591,946	100.0	20,654

Large volume of loans from in-formal sources: The average loan size varies between formal and informal sources. The average loan amount of friends and relatives is high with Rs. 55,647 and low in chits with Rs. 20,000 as compared to other informal sources. Of the loans from SHG sources, the average loan amount is high in VO/MMS loans (Rs. 16,529) and low in loans from SHG funds (Rs. 6,957). The average loan amount taken from friends and relatives is more than three times as compared to average loan taken from VO, Sthree Nidhi and SHG-bank linkage; similarly, the average loan taken from money lenders is more or less double as compared to loans taken from SHGs. It shows that the loan from formal sources is small in size as compared to informal sources.

Further, of the household loans from informal sources, the percentage of small and large size loans are more or less same in numbers. It is because of need-based borrowing, ability to provide collateral and loan repaying capacity. Where as, of the loans taken from SHGs, a majority percentage of loans are small in size, i.e., less than Rs. 10,000, and a few percentage are large loans of more than Rs. 20,000. It could be predominantly because of equal distribution of funds borrowed from external agencies to group members and ceiling on loan size to SHGs.

Preponderance of less than 2 year old loans: The data in Table 5 shows that of the total 416 loans, majority of the loans are less than one year old (61.3%) followed by two (20.2%) and more than two years (18.5%). The average age of loans from VO is high with 25 months and low in www.sthreenidhi.org with 3 months, when compared to others (friends & relatives-19 months; money lenders-11 months; traders-7 months; chits-6 months; SHG funds-17 months; personal loans from banks-23 months). Of the informal sources, majority of the loans are of less than two year old (83%). However, the percentage of loans which are more than two years old is high in friends & relatives (33.4%) as compared to other sources. Of the formal sources, majority of the loans from SHG funds and VO/MMS are of more than one year old. It could be because of no or less number of loans from internal funds due to paucity of funds and/or poor repayment and defaulting. Further, a majority of the loans of Sthree Nidhi, SHG-bank linkage and personal loans from banks are of less than one year old. It could be because of two reasons - Sthree Nidhi has started its operations in the recent past, since October 2012; and more focus on PoP SHGs credit linked to banks by the SERP/promoter.

Table 5: Source-wise Age of Loans (In %)

Credit Source	Age of loans (in years)					
	0.1-1	1.1-2	2.1-3	3.1-4	> 4	Total
A. Informal (N=100)	64.0	19.0	9.0	4.0	4.0	100
1. Friends & Relatives (N=30)	46.7	20.0	16.7	10.0	6.7	100
2. Money lenders (N=58)	69.0	20.7	5.2	1.7	3.4	100
3. Chits (N=3)	66.7	33.3	0.0	0.0	0.0	100
4. Traders (N=9)	88.9	0.0	11.1	0.0	0.0	100
B. Formal (N=316)	60.4	20.6	4.4	4.1	10.5	100
1. SHG funds (N=42)	47.6	35.7	7.1	2.4	7.1	100
2. VO/MMS (N=62)	37.1	33.9	6.5	3.2	19.4	100
3. Sthreenidhi (N=56)	100.0	0.0	0.0	0.0	0.0	100
4. SHG-BL (N=131)	60.8	20.0	3.1	3.8	12.3	100
5. Bank-personal (N=25)	52.0	12.0	8.0	20.0	8.0	100
Total (N=416)	61.3	20.2	5.5	4.1	8.9	100

Purpose of Loans

Large number of loans for production purposes: The households have borrowed loans for various purposes – consumption, production, social needs and asset creation. The consumption loans include food and clothing; the production loans include agriculture inputs, purchase of milk

Table 6: Purpose-wise No. of Loans and Amount

Particulars		Loans		Amount in Rs.		Mean
Category	Purpose	N	%	Total	%	in Rs.
Consumption	Food & Clothing	22	5.3	167,300	1.9	7,605
Production	Ag. Inputs	144	34.6	2,586,433	30.1	17,961
	Milk Animals	21	5.0	463,230	5.4	22,059
	Goat/Sheep	13	3.1	166,100	1.9	12,777
	Business	24	5.8	294,900	3.4	12,288
	Self Employment	3	0.7	23,000	0.3	7,667
	Auto/Taxi/Tractor	3	0.7	118,000	1.4	39,333
	Traditional Occupations	3	0.7	25,000	0.3	8,333
Social Needs	To Repay Old Loans	15	3.6	344,000	4.0	22,933
	Marriage	20	4.8	614,967	7.2	30,748
	Health	61	14.7	1,274,100	14.8	20,887
	Education	38	9.1	1,382,500	16.1	36,382
Asset Creation	Housing	48	11.5	1,072,416	12.5	22,342
	Land	1	0.2	60,000	0.7	60,000
	Total	416	100.0	8,591,946	100.0	20,654

animals, sheep and goats, business, self employment activities, purchase of an auto and expanding traditional occupational activities; the social needs include to repay old loans, marriage, health and children's education; the asset creation loans include housing and land.

Table 6 shows that of the total 416 loans taken by the sample households, majority of the loans are for production (50.7%) followed by social needs (32.2%), asset creation (11.7%) and consumption (5.3%). Of the production loans, majority of the loans (34.6%) and amount (30.1%) is for agriculture inputs. Of the social needs, large number of loans and amount is for health (loans-14.7% and amount-14.8%) and education (loans-9.1% and amount-16.1%); and most of the asset creation loans (11.5%) and the amount (12.5%) is for housing.

Large volume of loan for social needs: The average loan size varies from Rs. 7,605 to Rs. 60,000 with an average of Rs. 20,654. The average size of the loans taken for purchase of land is high with Rs. 60,000 and it is low with the loans taken for consumption with Rs. 7,605 as compared to other purpose of loans. Interestingly, the average loan taken for social needs is high as compared to production purposes. It shows that the tribal households require large loans to address the social needs of the household members.

Large number of loans & amount for social needs from informal sources: Of the total household loans from informal sources, large number of loans is for social needs (49%) followed by production purposes (41%). In contrast to it, a majority of the loans from formal sources are for production purposes (53.8%) followed by social needs (26.9%), and the loans taken for production is double when compared to loans for social needs (see Table 7). The data shows that of the total loan of Rs. 36.94 lakh from informal sources, a major chunk of loan is for social needs (62.2%) followed by production purposes (25.6%). Where as, of the total loan of Rs. 48.98 lakh from formal sources, a major portion of loan is for production purpose (55.8%) followed by social needs (26.9%) and asset creation (14%). The average loan size of informal sources is more than double (Rs. 36,940) as compared to formal sources (Rs. 15,500). The average loan size of informal sources for social needs is more or less three times (Rs. 46,865) when compared to formal sources (Rs. 15,520). It is because many tribal children have been staying in towns/district headquarters for their professional and college education. Many tribal households have taken large volume of loans for their children's education, especially to pay college fee, meeting food and other expenses.

Table 7: Source and Purpose-wise Number of Loans and Amount (in %)

S. No.	Purpose	Loans		Amount	
		Informal	Formal	Informal	Formal
1	Consumption	1.0	6.6	0.1	3.3
2	Production	41.0	53.8	25.6	55.8
3	Social Needs	49.0	26.9	62.2	26.9
4	Asset Creation	9.0	12.7	12.1	14.0
	Total	100.0	100.0	100.0	100.0
Loans/Amount in Rs.		100	316	36,94,000	48,97,946

Household Debt/ Loan Outstanding

Large loan outstanding for a longer period: The sample households have a total loan outstanding of Rs. 67.6 (78.7%) lakh against the loan of Rs. 85.9 lakh with formal and informal sources. Of the total loan outstanding, a major portion is with formal sources (57.2%). However, the average amount of loan outstanding to the informal sources is more than double (Rs. 28,934) when compared to the formal sources (Rs. 12,248) as it is because of large volume of loans from informal credit sources.

Table 8 shows that of the 100 household loans from informal sources, about three-fourths of loans are 100 percent of loan outstanding against the total loan; and a small portion of loans are less than 50% of loan outstanding against the total loan. Further, a majority of the loans more than one year old from informal sources are also 100 percent of loan outstanding against the total loan. It is because of flexible loan repayment conditions of informal credit sources – repayment of both principle and loan installments at the end of the year, payment of interest every year, partial repayment of loan amount after selling the harvest. It shows that the tribal households would bear the burden of large interest on the loans taken from informal credit sources. However, out of 64 one year old loans from informal sources, 23.4% of loans are less than 75% of loan outstanding.

Table 8: Age of Loans and the Percentage of Loan Outstanding

S.No.	Loan O/S in %	< 1 year	1-2 years	2-3 years	3-4 years	> 4 years	Total
A	Informal (N=)	64	19	9	4	4	100
1	< 50	15.6	21.1	--	50.0	25.0	17.0
2	51-75	7.8	--	22.2	--	--	7.0
3	76-99	1.6	--	--	--	25.0	2.0
4	100	75.0	78.9	77.8	50.0	50.0	74.0
B	Formal (N=)	191	65	14	13	33	316
1	< 50	8.9	33.8	30.8	46.2	39.4	19.7
2	51-75	16.2	24.6	23.1	23.1	18.2	18.7
3	76-99	41.9	18.5	--	7.7	9.1	30.5
4	100	33.0	23.1	46.2	23.1	33.3	31.1

It could be because, some of the households might have borrowed large loans from SHGs on low interest rate and repaid the large loans taken from informal sources to reduce the interest burden. Another possibility is that in order to mobilise funds to meet the household needs, first they have taken loans from informal sources due to various reasons – paucity of funds at SHGs, delay in getting funds from external credit agencies to SHGs, exhausting of credit windows through SHGs and emergency and later have repaid the loan amount fully or a portion after getting loans from formal sources/SHGs. It is also evident that of the 316 loans from formal sources, 15 (3.6%) were taken to repay old loans.

Of the total 316 loans from formal sources, many loans have 100 percent of loans outstanding (31.1%) followed by 76-99 percent (30.5%). However, about one fifth of loans are outstanding of less than 50% followed by 51-75 percent

(18.7%). It is because of lending norms of SHGs and the agencies, which provided credit to SHGs – monthly repayment of both principle and interest of loan installment. But, of the 125 loans that are more than one year old, 28 percent of loans are 100 percent outstanding against the total loan. It means that there is no repayment, even after one year, even though they are supposed to pay both principle and interest every month; another 13 percent of loans have more than 75% of loan outstanding. It confirms the poor repayment and defaulting of loans taken from formal sources.

Grave interest burden on households: The data in Table 9 shows that the total amount of interest per month on household debt or loan outstanding (Rs. 67.64 lakh) is of Rs. 1.14 lakh with an average of Rs. 618 and Rs. 275 per household and loan respectively. Though the major portion of loan outstanding is with formal sources (57.2%), a major part of the interest amount is paid to informal sources (66.1%); the average amount of interest paid on loans by the households to informal sources is far high (Rs. 756) when compared to formal institutions (Rs. 122). The average amount of interest amount paid by a household to informal sources is almost four times (Rs. 859) when compared to the amount paid to formal sources (Rs. 216). It is because of lending norms of informal sources such as large size loans (Rs. 20,000 to Rs. 60,000), high interest rates (24 to 36 percent per annum) and flexible mode of loan repayment (both principle and interest at the end or after crop harvesting).

Table 9: Loan Outstanding and the Amount of Interest Paying by the Households

Credit Source	Number of 185 HHs	Number of 185 Loans	Loan Outstanding Amount	Loan Outstanding %	Interest per Month Amount	Interest per Month %	Average Amt HH	Average Amt loan
1. Informal	88	100	2,893,400	42.8	75,623	66.1	859	756
2. Formal	179	316	3,870,518	57.2	38,705	33.9	216	122
Total	185	416	6,763,918	100.0	114,328	100.0	618	275

In response to a question 'what are the advantages of loans borrowed from the informal credit sources?,' the household members have said that large volume of loan can be obtained at any time for any purpose with easy access, minimum procedures, flexible repayment norms and without making any payments/ bribes, even though the rate of interest is exorbitant.

There is no much difference in the means of fund sources to repay loan of formal and informal sources: During interactions, the household members have said that they mobilize funds from multiple sources such as household income (99%), loans from other credit sources (13.1%), sale of assets (9.4%), mortgage of crops (5.3%) and assets (3.1%) to repay loans taken from both institutional and non-institutional sources. It shows that about 10 to 15 percent of the households borrow loans to repay at least a portion of loan that leads to chronic debts. Second, some households lost their assets and as they failed to release the assets mortgaged due to failure of crops and other pressing household credit needs. Third, the households who mortgaged the crops lost the best price for their crop. Fourth, in case of crop failure, many households were indebted to the money lenders.

The prevailing notion is that the traditional money lenders are merciless towards borrowers while collecting loan as per the terms and conditions. But the data in Table 10 shows that there is no much difference between the means followed by the borrowers to repay loan installments to informal sources and the loans from SHG credit sources. It could be because of the peer pressure on borrowers by the SHGs. Another reason is that the informal sources might have changed harsh to courteous loan collection methods as a survival strategy in the changing rural credit systems.

Table 10: Sources of Funds to Repay the Loan Installments

S.No.	Fund source	Informal	Formal	Total
1	Household income	98.0	98.7	98.6
2	Other credit sources	13.0	13.2	13.1
3	Sale of assets	10.0	9.2	9.4
4	Mortgage of assets	5.0	2.5	3.1
5	Mortgage of crop	7.0	4.7	5.3

Promotion of Savings

The sample households have promoted different types of saving products to gratify their future needs. As savings are mandatory to the SHG members, all the households have a total savings of Rs. 5.98 lakh with an average of Rs. 3,325 per member with SHGs (Table 11). According to a study "Self-Help Groups in India: A study on quality and sustainability", the average total savings of an SHG member is Rs. 2,786 (Reddy and Reddy, 2012). It seems that the average total savings of SHG members in the TPMU areas is more as compared to the national average of Rs. 2,786.

Table 11: Source-wise Promotion of Savings by the Households

S. No.	Source	Households		Savings (in Rs.)		
		Number	%	Amount	%	Mean
1	SHG	180	95.2	598,496	25.6	3,325
2	Banks	30	15.9	172,850	7.4	5,762
3	Post office	21	11.1	331,000	14.2	15,762
4	Insurance	119	63.0	997,335	42.7	8,381
5	Chits	11	5.8	116,700	5.0	10,609
6	Friends & Relatives	19	10.1	119,800	5.1	6,305
	Total			2,336,181	100.0	

About 16% of the households have a total savings of Rs. 1.73 lakh with an average of Rs. 5,762 with banks. About 11% of households have a savings of Rs.3.31 lakh with an average of Rs. 15,762 per household at post office. Nearly two-thirds of households have paid insurance of Rs. 9.97 lakh with an average of Rs. 8,381 per household. A few households have been saving in the form of chits a total of Rs. 1.17 lakh with an average of Rs. 10,609. About 10% of households have a total savings of Rs. 1.20 lakh with an average of Rs. 6,305 with friends and relatives. It reveals two things. First, the tribal households being the members of SHGs have promoted large amount of savings and linked to banks; and more over nearly two-thirds of households availed insurance services. Second, a small number of households are promoted savings with the agencies other than SHGs.

It also illustrates that the SHGs are the chief media to the banks and Sthreenidhi for providing financial services to the under served and un-reached sections of the society.

Issues and Problems in Accessing Credit

The problems and the issues in accessing credit as reported by the households are broadly categorised into two – problems with formal and informal sources. They are as follows:

Formal Sources

i) *Absence of title deeds and the problem of collateral:* Most of the tribal households do not have title deeds though the households have traditional rights on land from the past few generations. In some cases the title deeds are on other household member's name. Hence, many households are unable to access credit from banks by producing collateral, which is mandatory.

ii) *Loans for limited purposes:* The households need credit for various purposes-consumption, social needs, asset creation and input cost for the household economic activities. But, for the tribals, the utility of loan products of banks is limited in the form of crop/gold loans and a few loans for income generation activities for unemployed youth.

iii) *Banking services are not in vicinity:* In the tribal areas, the banking facilities are too far, about 20 to 30 km from the habitations. A majority of the households in interior villages are not aware of banking services. The data also shows that only 25 out of 189 households have availed bank loans for agriculture and other income generation activities. It shows the poor access of banking services by the tribal households.

iv) *Paucity of funds for lending at SHGs:* The SHGs do not have enough funds to meet the credit demand of their members. The data shows that of the 1430 members of 126 SHGs, there are 372 loan applications pending for a total credit of Rs. 60 lakh with an average of Rs. 16,304 per member due to paucity of funds (APMAS, 2012).

v) *Marginalization of quality SHGs in remote villages:* Irrespective of its quality, majority of the SHGs at mandal headquarters and road side villages, were credit linked to banks because of multiple reasons. As a result, large number of SHGs in remote villages is not credit linked, despite the fact that all the SHGs are savings linked to banks. According to a study conducted by APMAS in 2012, many SHGs credit linked to banks are C graded (41%) followed by A (33%) and B (26%). Further, low percentage of SHGs in remote villages (59%) were credit linked to banks when compared to the percentage of SHGs credit linked to banks at mandal headquarters (77%) and road side (74%).

vi) *Poor quality of SHGs, VOs and MSs:* According to a study done by APMAS, of the 126 SHGs, majority of the SHGs are C (40%) and B (29%) graded; and most of the VOs and MSs are D, E and F graded. As the credit linkage and amount are linked to quality of the CBOs, many SHGs/VOs/MSs are eligible to low volume of loan. Consequentially, many SHG members are unable to access credit from the formal financial institutions.

Informal Sources

(i) *Exorbitant rate of interest:* The rate of interest charged by informal sources ranges between 24 to 48 percent per annum. But in case of loans on emergency purposes, mostly it is more than 60 percent per annum.

(ii) *Loss of assets mortgaged:* If the borrower fails in repaying the loan as per the loan terms and conditions, they will lose high valued asset for a small amount of loan and interest.

(iii) *Low prices to the agriculture produce and minor forest produce (MFP):* Many households take loans/advances from the traders and money lenders to meet the cost of agriculture inputs and other needs on a condition that the agriculture produce/MFP would be sold to them only. The traders taking it as advantage and have been exploiting the tribals with wrong weights and measures and by paying comparatively low prices than the market prices besides exorbitant interest rate on the advances/ loans.

Conclusion and Way Forward

There are 32 Scheduled Tribes inhabiting over 31,485 sq km in the districts of Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Warangal, Khammam, Adilabad and Kurnool. The other three tribal groups namely the Lambada, Yerukala and Yanadi mostly live outside the Scheduled Areas. There are one million ST households in the State and about a half of them live in 5,936 villages in the nine ITDA areas. The Scheduled areas are inhabited by an estimated 2.8 million tribals who are entitled to the benefits of tribal sub-plan (TSP) projects and protective legislations. A good number of households formed into SHGs and credit linked to banks.

The tribals are socially and economically vulnerable. A majority of the households are simple families, with more illiterates and many non-working members. A few households have accounted seasonal migration due to economic factors. Mostly, they are small and marginal farmers primarily depending on rain-fed agriculture; labour and MFP/NTFP collection are the household subsidiary economic activities. At present, the households' engagement in MFP collection is minimal, though it is most of the households' subsidiary activity in the past.

The tribal households accessed credit from multiple formal and informal sources. Of the formal sources, banks have provided a lion's share to household credit under SHG bank linkage programme; where as, of the informal sources, money lenders and friends and relatives have contributed much to the household credit. The household credit varies from less than one thousand to more than a lakh. The size of the loans taken from informal sources is high, when compared to the size of loans from formal sources. Irrespective of credit sources, a majority loans are less than one year old. However, many loans from VO and friends and relatives are more than two years old.

The tribal households borrowed majority of the loans and amount for production - especially for meeting the costs of agriculture inputs, followed by social needs - mainly for health and education. Of the loans and amount from formal sources, a major chunk is for production followed by social needs. In contrast, majority of the loans and amount from informal sources is to social needs followed by production. It shows that the tribal households largely depend on formal sources for production purposes, and on informal sources for social needs.

The households have large loans outstanding with formal and informal sources. A majority of loans from informal sources have 100 percent of loan outstanding against the total loan. Further, majority of the loans that are more than one year old also have 100 percent of loan outstanding because of flexible loan repayment norms of informal sources. However, in case of formal sources, the percentage of loans having 100 percent of loan outstanding against total loan is low because of monthly repayment norm; further, many loans which are more than one year old have 75-100 percent of loan outstanding, which indicates low repayment rate from members to SHGs or defaulting to formal sources. Tribals are not able to take advantage of the "pavala vaddi" and the more recently introduced "interest-free" loans available from the banking sector with interest subsidy paid by the Government of Andhra Pradesh. There is a substantial interest burden on many tribal households because of exorbitant rate of interest on loans charged by the informal sources; even then, many households prefer loans because of large volume of loan at door steps, at any time and for any purpose with flexible repayment norms and without any bribe/ payments.

The tribal households have been encountering some core issues in accessing credit from formal and informal sources. Exorbitant rate of interest, loss of assets mortgaged and low prices to their agriculture produce are the important issues while accessing credit from informal sources. The major problems that have been faced by the households in accessing credit from banks are absence of title deeds and the problems of collateral security, loans for limited purposes and credit services are not in vicinity, that are contradictory to the advantages of informal sources. The problems in accessing credit from SHGs are paucity of funds at SHGs for on lending to members, marginalization of quality SHGs in remote villages and poor quality of SHGs, VOs and MSs, that are distinct in accessing credit from banks and traditional sources.

In conclusion, majority of the tribal households have accessed financial services from banks through SHGs. Nevertheless, nearly one half of the households depending on informal sources, whose interest rates are high, for large credit, mostly to cater the social needs of the household members. Further, the formal institutions could not succeed in meeting the credit demand of the SHG member households because of diverse reasons.

In the above context, to reduce the dependence of tribal households on money lenders and to extend and provide quality financial services to the underserved to enable them to take advantage of the interest-free loans, banks and Sthree Nidhi should adopt a two pronged approach: i) adoption of business correspondents model by using modern technologies where there is no problem of connectivity; and ii) In the absence of technology, engagement of village organizations as 'business correspondents' with adequate capacity building inputs on 'strengthening CBOs' and 'financial literacy'.

NOTES

1. SERP is a non-government organization promoted by Govt. of Andhra Pradesh working with the World Bank funding support for poverty reduction and empowerment (www.serp.org).
2. SHG is a small group (15 to 20 members), voluntarily formed and related by affinity for specific purpose, it is a group whose members use savings, credit and social involvement as instruments of empowerment.
3. Village organization is the primary level federation of SHGs at village level. A federation is an association of primary organizations.
4. Mandal Samakhya is the federation at mandal level formed with primary level federations.
5. Community based organization is a non-profit organization which works to serve the disadvantaged in the community with public and private funds in which it is located.
6. Andh, Bagata, Bhil, Chenchu, Gadaba, Gond, Goudu, Hill Reddis, Jatapus, Mammar, Kattunayakan, Kolam/Kolawar, Konda Doras/Kubi, Konda Kapus, Konda Reddis, Kondh/Kodi/ Kodhu/Desaya Kondh/ Dongria Kondh/ Kuttiya Kondh/ Tikira Kondh/ Yenity Kondh/ Kuvinga, Kotia/Bentho Oriya/ Bartika/ Dulia/ Holva/ Sanrona/ Sidhopaiko, Koya, Kulia, Malis, Manna Dhora, Mukha Dhora, Nooka Dhora, Nakkala/ Kurvikaran, Nayaks, Pardhan, Porja/ parangiporja, Reddi Dhoras, Rona/Rena, Savaras, Thoti, Valmiki, Yanadi, Yerukala and Dhulia/Paiko/Putiya
7. Chenchu, Gadaba, Kolam, Konda Reddy, Khond, Porja, Savara and Valmiki- are the most backward tribes in the state of Andhra Pradesh, primarily depend on food gathering economy.

8. The formal sources include SHG funds, SHG-Bank Linkage, loans from village organization/ Mandal Mahila Samakhya and agriculture loans from banks on individual capacity
9. The informal sources include money lenders, chits, traders and friends & relatives.
10. The amount of interest paid by households on loan outstanding was computed based on the rate of interest paid by majority of the households on each source of loans - SHGs @ of 12% per annum, friends & relatives and traders @ of 24 per annum and money lenders @ 36% per annum.

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Determinants of the Length of Credit Cycle among Self-Help Group Households in Odisha

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Abstract

The stability phase of the Self-Help Group ensures easier access to bank loan for the members of the SHGs. Once the first dose of bank loans is repaid, the second and subsequent doses of loans are provided to the members of SHGs by the banks. The time period for each loan cycle is not uniform across members and SHGs. The time lags between two successive doses of loans are termed as credit cycle. Intra-group variation in the length of credit cycle is usually measured in terms of the number of days required to repay the loans which is conditional upon the socio economic differences among the SHG households. The present study examines the determinants of the length of credit cycle with the aid of econometric tools.

SHG Household refers to any household in which at least any one of the members of the household is a member of Self-Help Group. SHG ensures easier access to bank loan for their members. Majority of the SHG members, due to poor repayment track record, are not able to graduate to higher credit cycles. There exists a direct relationship between higher credit cycles and sustainability of SHGs.

Background

There has been a phenomenal growth of SHGs in Odisha under NABARD initiated SHG Bank Linkage Programme (SBLP) and Swarna Jayanti Gram Swarojgar Yojana (SGSY). It is most often reported that a majority of the SHG members, due to poor repayment track record, are not able to graduate to higher credit cycles. Theoretically, there exists a direct relationship between higher credit cycles and sustainability of SHGs. Sustainability of the SHG, in turn, ensures socio economic empowerment (Harper 1998, Grameen Trust 2001, Karmakar 2008).

This paper seeks to examine the determinants of the length of credit cycle of the loans availed by the members of the SHGs from their respective link banks. The study

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covers 150 SHG members under SBLP in Ganjam district and another 150 SHG members under SGSY in Gajapati district in Odisha. SHG Household refers to any household in which at least any one of the members of the household is a member of a Self-Help Group.

Research Methodology

In each district of Ganjam and Gajapati in Odisha, 10 activity based SHGs were identified for data collection; the SHGs were based in a cluster comprising adjacent villages. To give due weightage to availability of bank loan to SHG members, the oldest functioning SHGs of the district were identified in consultation with the district microfinance coordination cell which, incidentally were functional in both the districts under study. As many as 50 SHGs comprising of 150 members from each district constituted the sample for the study. Thus, in total, 300 SHG members, comprising 150 SHG members under SBLP each in Ganjam and Gajapati districts, was the sample for this study.

To analyze the determinants of loan period, the ordinary least square (OLS) regression analysis method has been used. The dependent variable is time period of loan in number of days which is regressed on number of independent explanatory variables such as loan amount, annual household income, dependency ratio of household (defined as the ratio of non-working members to working members in the family), year of schooling as proxy for education, total sales proceeds from the business activity done after taking the loan, total land holdings of household, Dummy for BPL household if having BPL card then 1 else 0, Dummy for MGNREGA household, dummy for gifts and grants as 1 if he/she receives any kind of subsidy, gift, or grants else 0, ratio of total cash inflow upon total cash outflow from all the sources that borrowers receive, Engel's ratio (defined as the expenditure on annual food consumption compared to annual total expenditure of household, and the experience of borrowers with the SHG group.

$$\begin{aligned}\text{Time Period of Loan (Y)} = {} & \beta_1{*}LA+\beta_2{*}AHI+\beta_3{*}DR+\beta_4{*}EDUC+\beta_5{*}EXP+\beta_6{*}TSP+ \\ & \beta_7{*}BPL+\beta_8{*}TLH+\beta_9{*}D_{MGNREGA}+\beta_{10}\ ENGELS{*}+ \\ & \beta_{11}{*}\ D_{GIFT}+\beta_{12}{*}\ IO+\beta_0+U\end{aligned}$$

Expected Sign of Variables

The expected sign of the coefficients of independent explanatory variables depends on the type of relationship it has with the time period of loan. This can be explained by the sign of marginal coefficient of that variable (when independent variable changes by 1 unit, then what changes occur during the time period of the loan).

Positive Relationship: when independent variable is increased by 1 unit the time period of loan will increase. From the theory amount of loan, dependency ratio, total sales proceeds, ratio of total cash inflow to cash outflow, and experience with the SHG are considered to have a positive relationship with the time period of loan.

Negative Relationship: Annual household income, education in terms of years of schooling, total land holdings, dummies for gift and grants, and Engel's ratio are expected to have negative relationship with the time period of loan.

*Uncertain Relationship:*_Theoretically, poorer households are provided with Below Poverty Line (BPL) cards and job cards under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). Incidentally, membership of SHGs is encouraged among BPL households on priority. It is reported that some of the poorer households even after escaping from poverty have either retained their entitlement cards (like BPL cards and job cards) or have scrupulously appropriated the benefits of entitlement cards. Again lured by the benefits of SHG programme some of the members from Above Poverty Line (APL) rural families have joined SHGs. Against this background no systematic relationship can be priory expected between the repayment behaviour and entitlement cards such as BPL cards and job cards. So Dummies for BPL card holder and MGNREGA household display unexpected indicators, which cannot be judged from the theory. They can have either positive or negative relationship with the time period of loan.

Results and Interpretation

When the simple OLS regression was performed on the time period of loan as dependent variable using the pool of independent explanatory variables, then the result was inconsistent because of heteroskedasticity. The Breusch Pagan/Cook-Weisberg test was used to check whether heteroskedasticity was present in the model. The chi square value of Breusch pagan test comes to be 17.54 with degree of freedom equal to one, which led to rejection of null hypothesis of constant variance against the acceptance of alternative hypothesis of heteroskedasticity. So to correct for heteroskedasticity, robust standard error was used in linear regression model. The regression result is presented in Table 1.

The R-square value which shows the goodness of fit of the model means how the explanatory variable is capable of explaining the variation in the dependent variable comes out to be 0.62. So the explanatory variables have 62% capability to explain the variation in time period of loan which is considered to be good value in regression analysis. The second statistics F-stat was used to find whether the entire explanatory variables are jointly significant or not. The value of F-stat

Table 1: Regression Results

Dependent Variable: Time Period of Loan (TIME)				
Variables	Coefficient	t-stat	P-value	Standard Error
Loan Amount in Rupees (LA)	0.002	1.171	0.243	0.002
Annual Household Income in Rupees (AHI)	-0.001	-3.078	0.002	0.000 ***
Dependency Ratio (DR)	31.654	2.012	0.046	15.734 **
Education (Years Of Schooling EDUC)	-15.041	-2.271	0.024	6.622 **
Total Sales In Rs. (TSP)	0.013	3.297	0.001	0.004 ***
Total Land Holdings Of HH (In Acres TLH)	-22.251	-1.591	0.113	13.989
Dummy For BPL Card Holder (BPL)	-110.032	-2.905	0.004	37.874 ***
Dummy For MGNREGA HH (MGNREGA)	90.837	2.218	0.028	40.956 **
Dummy for Gifts & Grants Received (GIFT)	-99.067	-2.740	0.007	36.160 ***
Ratio of Cash Inflow to Cash Outflow (IO)	0.547	2.442	0.016	0.224 **
Engel's Ratio (ENGELS)	-913.562	-5.460	0.000	167.313 ***
Experience with SHG In Days (EXP)	0.115	4.307	0.000	0.027 ***
Constant	888.165	6.589	0.000	134.789 ***
Observations = 200	F(12,187) =43.94			R-squared =0.6203
R-squared = 0.620	Prob > F=0.0000			Root MSE =256.13
*** p<0.01, ** p<0.05, * p<0.1				

came to 43.94 with 12 degree of freedom leading to rejection of null hypothesis of jointly insignificant variables.

From the table we can conclude that Loan Amount and Total land holding of HH are insignificant, years of schooling as proxy for education, Dependency Ratio, Dummy for MGNREGA HH, and ratio of Total Cash Inflows to total Cash Outflows are significant at 5% level. The dependency ratio has marginal coefficient 31.654 which gives the concluding statement of increasing the dependency ratio by 1 unit, the loan period will increase by 31.654 days. In a family, the higher the number of non-working members, the more the borrower has to spend on the non-working members, which could have been used to repay the loan. So DR has a positive relationship with the time period of loan. The years of schooling has a marginal coefficient as -15.041, which means that by increasing the education by one more year, borrowers take 15.041 days less to repay the loan which is expected from the model. Total cash inflow to total cash outflow shows the ratio of the borrower's total income to his total expenses. With the higher value of this variable, he/she has greater tendency to keep the money. This is because wealthier individuals or households tend to be more liquid compared to poorer households. So he takes longer to repay the money. The marginal coefficient of this variable is 0.547 which means by increasing the explanatory variable (IO) by 1 more unit, the borrowers takes 0.547 days extra to repay the loan amount.

Dummy for BPL card holder, Dummy for HH who receives any kind of gift, grants, or subsidies, Annual HH Income, the Engel's ratio, Total sales proceeds, and experience with SHG are significant at 1 % of significant level. The marginal coefficient of loan period with respect to Total sales proceeds has value equal to 0.013 which means by increasing the total sales proceeds by 1 rupee the loan period increases by 0.013 days. Total sales proceed has positive relationship with time period of loan. The marginal coefficient of annual household income is -.001 which means by increasing the annual household income by 1000 rupee the borrowers take 1 day less to repay the loan. The Engel's ratio has negative co-relationship with the time period of loan. If a person is spending more on food, his health will be good and he can work more efficiently in repaying the loan earlier. The marginal coefficient for Engel's ratio is -913.562 days which means if Engel's ratio increases by 0 .01 units then the loan repayment days decrease by 9.13 days. Experience with the SHG is defined as the time difference between joining of the SHG and date of issuing of the loan. The coefficient of experience with the SHG is 0.115. With 1 day increase in experience with the SHG, the loan period increases by 0.118 days which is contrary to the expected result. This is because as the members become more experienced in SHGs, they scale up their income generating activity and consequently prefer to delay repayment of loan.

Dummies are included in the model to see the changes in the mean time period of a reference person with the observed person. If Dummies for BPL, MGNREGA, and Gift is zero then the person belongs to APL group who does not receive any kind of subsidy, grants and do not have MGNREGA card. The Mean time period for such person is the value of constant which is 888.165 days. If the dummy for BPL is one and others zero, then the person belongs to BPL HH with no subsidy received and with non-MGNREGA HH. The mean time period for such person will be sum of constant and coefficient of BPL dummy which has value equals to 778.133 days. The dummies calculation is presented in the following table:

Table 2: Explanation Regarding the Influence of the Dummy Variables on Mean Time Period of Loan

BPL	MGNREGA	GIFT	Mean Time Periods
0	0	0	888.165
1	0	0	778.133
0	1	0	929.121
0	0	1	789.098
1	1	0	819.098
1	0	1	679.066
0	1	1	830.054
1	1	1	720.022

The regression results shows that the BPL card holder who receives gift has minimum loan clearing time period, followed by BPL, MGNREGA households who receives Gift. BPL households receive gifts in terms of remittances from family members who mostly work outside their home state. It was reported that most of the unskilled people in the study area migrated to work in the textile mills of Surat and construction sites in Kerala. It is a common practise among SHG households that at the time of need, they borrow from SHGs and repay the loan as soon as they receive their remittance. On the contrary, among APL households, the loan period was found to be on the higher side. During the field study it was found that the APL households mostly concentrated on agricultural operations and had higher landholding size. These households were found to be cash strapped due to rising agricultural cost and very less surplus income. This was probably one of the main reasons behind members from APL households under agricultural sector joining the SHG programme. Typically, these households were not resorting to migration due to family prestige and constant requirement of family labour. As such the length of the credit cycle of the APL households stood higher compared to their BPL counterparts.

Conclusion

The above analysis suggests that the amount of loan should be small at the member level for easier repayment and consequently of lowered length of credit cycle. Households having better cash inflow from other sources of family income had better repayment behaviour. This indicates that loans taken by the members of SHGs are utilised for different cash needs at the family level rather than exclusively for SHG led enterprising activities. SHG households from BPL Category resorting to outstate migration had better repayment behaviour. Similarly educated members also had better repayment behaviour. SHG members from well fed households tend to have better repayment behaviour. SHG members from the agricultural households coming under APL category had poor track record of loan repayment. In the light of these findings the paper views that good nutrition coupled with good education have remotely positive links with the repayment behaviour of SHG members. At the same time, due to institutional credit gap in the agricultural sector, members of agricultural households consider SHG enabled loan as alternative to bank credit. It is suggested that in addition to mainstream activities of SHG Programme, there should be awareness on importance of education and nutrition among SHG members. In the formation process of new SHGs, women members of agricultural households under APL category might be targeted for membership. This could be introduced even in the agriculturally advanced regions where there is poor penetration of SHGs.

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Does Federating Help Self-Help Groups?: An Empirical Study[1]

Sunil Kumar*

The SHG bank linkage programme has completed two decades of existence. The tremendous success of the SHG movement relied, and continues to rely, heavily on promoting institutions to mobilize, train, and support groups.

Abstract

The Self-Help Group (SHG) Bank Linkage programme has during last two decades covered more than 8.06 crore Indian poor households, making it the largest community based microfinance programme in the world. However, in spite of its considerable outreach, successful savings mobilisation, and high loan-repayment rates, the sustainability of SHG banking has not been clear. To address this problem, a number of SHG Federations have emerged in recent years. Networking of SHGs into Federation has been inspired by the felt need of the SHGs that are not able to deal with issues that are beyond their reach. SHGs having a membership of 10-20 women are too small and informal to deal with larger issues to realize the needs and aspirations of women members. Inter-group lending, ability to negotiate with higher level structures and to gain greater bargaining power are some of the reasons for formation of SHG Federations, which have been promoted by the NGOs and the Government since mid 1990s. The present study attempts to assess the influence of SHG federations on constituent SHGs by

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Key words: SHG Federations, financial sustainability, critical rating index, governance, financial management

comparing groups belonging to federations with those groups which are not part of any federation in terms of a number of governance/ system related and financial management related variables.

Introduction

The SHG bank linkage programme has completed two decades of existence. While the growth has been phenomenal in terms of number of groups, there are several concerns that are emerging on the sustainability of the programme. The premises on which the programme has been built are that the groups will manage on their own after the initial capacity is built; the Self-Help Promoting Institutions (SHPIs) will build the capacity of the groups, link them to the banks and scale down their involvement. If banks are the SHPIs, the relationship continues more as a lender than the capacity builder. Further, once the groups are linked to the banks, they will not need external assistance and the banks will continue the banking relationship seeing the business opportunity. However, field level experiences of the last two decades show that these two premises are not really holding good. The moot question is "*Can groups manage on their own?*"

The tremendous success of the SHG movement relied, and continues to rely, heavily on promoting institutions to mobilize, train, and support groups. As groups strengthened and the number of groups increased, there arose a need to bring together SHGs to deal with issues beyond the reach of these small groups. Thus networks of SHGs, referred to as Federations, have come together in various forms.

Networking of SHGs was inspired by the felt need of the SHGs that are not able to deal with issues that are beyond their reach. SHGs having a membership of 10-20 women are too small and informal to deal with larger issues to realize the needs and aspirations of women members. Inter-group lending, ability to negotiate with higher level structures and to gain greater bargaining power, were the reasons for which informal SHG networking was initiated by non-government organisations (NGOs). SHG Federations have been promoted by the NGOs and the Government departments to address the issues of ensuring quality while up-scaling, to ensure that costs of promotion are low, and to create sustainable institutions to facilitate withdrawal of the promoting organization, from some of its functions and roles.

The role of SHG federations has been a keenly debated subject at policy as well as grassroots level. The present study is an attempt to study whether there has been a positive influence of SHG federations in imparting sustainability to constituent SHGs by comparing groups belonging to federations with those groups which are not part of any federation.

Objective of the Study

The objective of the study is to assess the influence of existence of federations on SHGs, by comparing the differences between SHGs under the umbrella of Federations and other SHGs which are not part of federation, in terms of governance/ systems related variables and financial management related variables.

Data and Methodology

Study Sample

As per a study conducted by APMAS (2007), there are around 69,000 SHG federations in the country. Of these 66,310 are primary federations, 2,571 are secondary federations and 22 are apex federations. Of the total federations, 88.9% are in the southern region and the rest are in the remaining five regions. In the southern region, Andhra Pradesh is ahead with 42.5% followed by Kerala (22.4%), Tamil Nadu (21.2%). In the northern states, Orissa (5.8%) and West Bengal (2.2%) have a higher number of federations compared to other states.

Keeping in view the uneven regional distribution and differing maturity levels of SHG federations, the study attempted to capture a pan India picture by focusing on five sample states described in Table 1.

Table 1: Selection of Sample States

SN	Region	Name of the state	No. of SHG Federations*	Remark *(Why the particular state was selected as a sample State?)*
1	Northern India	Rajasthan	147	Other states in North (Punjab, Haryana, Himachal Pradesh and Jammu & Kashmir) do not have any SHG Federations.
2	Southern India	Andhra Pradesh	29,273	Andhra Pradesh has highest number of SHG Federations in south.
3	Western India	Maharashtra	600	Goa does not have any SHG Federation and Gujarat has only 64 federations.
4	Eastern India	Orissa	4,000	Orissa has the highest number of SHG Federations in the region.
5	Central India	UP	161	Being a large and backward state, SHG Bank linkage programme had a late start in the state. So to get a flavour of issues in respect of a late starting state, Uttar Pradesh was included in the sample.

*Source: APMAS (2007)

In each of the States, two SHG Federations were selected for detailed study in two different districts. A multistage sample design was adopted for selecting the sample SHG Federations. The classification of the districts into 'developed' and 'less developed' was made with respect to data on development indices (such as literacy rate, poverty level and infant mortality rate), number of SHGs, extent of bank branch network in rural area in the district. *Thus total number of sample SHG federations which have been studied in five States is 10.*

For each sample federation, 10 SHGs under the Federation and 10 SHGs outside the Federation (control group) have been studied to identify their differences in terms of the quality of SHGs based on critical rating index (CRI) developed by NABARD. Non federation groups were selected on a random basis in the same/ adjoining village so that the socio economic and political milieu were similar for federation and non federation groups. The critical rating index has been used as proxy to measure financial and organizational sustainability of SHGs with or without Federation. Thus, the total number of sample SHGs which have been studied in 5 states is 10*10*2 = 200.

Using the above framework, Federations indicated in Table 2 were selected for detailed study;

Table 2: Sample Federations selected for Study

SN	Name of SHG Federation	District / State	Promoted by
1	Mahila Sangharsh Manch	Alwar / Rajasthan	Ibdata, Alwar
2	Saheli Samiti	Dausa / Rajasthan	PRADAN
3	Gramin Mahila Swayamsiddha Sangh (GMSS)	Pune / Maharshtra	Chaitanya, Pune
4	Savitribhai Phule Sawadhan Kendra Karanja	Wardha / Maharshtra	Nagesheara Charitable Trust, Nagpur
5	Mahbubnagar Zila Mahila Samakhya	Mahbubnagar / AP	World Bank's Project –SERP (Society for Elimination of Rural Poverty)
6	Samsthan Narayanpur Kalanjia Sangamitra (SNAKS)	Nalgonda / AP	Dhan Foundation
7	Maneswar Matrushakti Block level Federation	Sambalpur / Orissa	Women & Child Development Department of Govt. of Orissa
8	Janani Mahila Vikash Parisada	Bharatpur, Khurda / Orissa	Swayamshree Micro Credit Services (MFI)
9	Shakti Block Mahila Sangathan	Rae Bareli / UP	Rajiv Gandhi Mahila Vikas Pariyojna (RGMVP), Rae Bareli
10	Annapurna Sewa Sansthan	Sant Kabir Das Nagar / UP	Grameen Development Services, Lucknow

Research Tools

Two different sets of detailed interview schedule were developed and administered to collect data from 10 sample SHG Federations and 200 sample SHGs. The interview schedule used for data collection from Federation was designed to elicit qualitative responses from promoters and office bearers of SHG Federations as well as control group SHGs. The schedule was designed based on NABARD's Critical Rating Index (CRI) and was supplemented by member-wise loan sheets and external loan details. The CRI basically consists of two sets of variables, namely, governance and systems related variables and financial variables. Governance related parameters are periodicity of meetings, attendance in the meetings, decision making process in the meeting, observation of norms, saving and loan installment collection methods, lending procedure, rotation of leadership, book keeping, and so on. Financial parameters include periodicity and regularity of saving, use of savings for internal lending, lending rates, lending norms, regularity in loan repayment, and so on.

The interview schedule was prepared with a lot of discussions and review. It was tested in the field in Raebareli district and finalised. This was supplemented with using the focus group discussion method with federation leaders, federation office bearers and federation promoting organizations to assess the impact of SHG federations on working of SHGs.

Data Collection

A three member team comprising the author and two more faculty members of BIRD conducted field visits in 10 districts of five identified States for collecting data from SHG Federations and SHG members. The data collection was done during February to April 2010.

Role of SHG Federation – a Theoretical Discussion

The concept of federation emerged from the felt need of the SHGs that have been functioning well and were keen to come together for sharing and learning. The federation was to serve the purpose of undertaking those roles that cannot be performed well by individual SHGs on their own. Some of these roles include:

- **Expansion of SHGs:** As the number of groups grows with continuous addition of new groups, the promoter's degree of involvement and even direct contact with the groups starts diminishing. At this stage, the promoter begins to think of setting up an apex level body (Federation) that is able to take on many of the promoters' tasks thus enabling it to leverage its limited resources in the most judicious manner possible.
- **Imparting Sustainability:** The promoting organization cannot continue working in the same area for an indefinite period of time. To provide sustainability to SHG activity initiated and developed by the promoter, it is necessary to build people's institutions that can eventually and independently carry forward the social and economic empowerment agenda.
- **Community Actions:** In a few cases, groups may have come together informally either on a particular issue/crises or for exchanging information and experiences through joint meetings. In such cases the initiative for a collective organisation comes from the SHGs themselves but the setting up of a formal structure is usually promoted and guided by the promoting agency. Usually these groups have been formed to take up community action programs and mobilize and lead collective action on wider social issues like child labour, female infanticide, illicit liquor, representation of women in panchayats, and violence against women.
- **Collective Bargaining Power:** When dealing with local bodies and institutions, individual groups do not carry much weight, but as a collective repre-

senting a large number of people, they gain both visibility and impact. As a collective it is possible to establish linkages with banks and other financial institutions to access greater funds and influence rules of the game in their market segment.

Although the merits of having federations are numerous, there also several competing arguments highlighting disadvantages or dangers associated with promotion of federations. The following are the major limitations of SHG Federations:

- Majority of the well-functioning SHGs have bank linkage. SHG federation is not required to play the financial intermediary role as SHG-bank linkage is a sustainable relationship.
- India has a good network of bank branches enabling rural poor an accessible place at which to make deposits or take loans. Therefore, federations may not be required to provide the same services.

Harper (2003) has strongly argued against formation of SHG federation. According to him, it is not justified to add any new layer of middlemen to any transaction, unless it can be clearly shown that the new intermediary adds value. The burden of proof is on anyone who proposes a new intermediary; he must show that it serves a purpose whose value outweighs its cost.

However, there are a number of other studies which have found lot of merits in promoting SHG federations. Nair (2005) examined the potential of SHG federations in providing sustainability to SHGs through financial and organisational support. Specifically, the study examined issues like (i) variety of services provided by the federations and their benefits to SHGs, (ii) financial variability of SHGs and SHG federations and cost of promoting them, (iii) identification of constraints of promoting SHG federations, and, (iv) policy recommendations to strengthen SHG federations. In terms of services provided by SHG federations and thrift cooperation to SHGs, the study found that the most common service is savings and loan facilities. Savings include general savings and particular savings for education, housing, marriages, and festivals. Loans include both small and large loans at costs lower than those available in the market. Besides these services, the SHG federations helped SHGs to internalize all operational costs and reduce the cost of promoting new SHGs. Further, SHG federations provide all essential services to SHGs with minimum costs. These services were often provided by the promoting agencies in the initial stage of SHG development. They include auditing, capacity building like training the SHG members, leaders and SHG accountants, and forming a common forum for reviewing the performance of SHGs. The federations also help in resolving conflicts among SHG members, between SHGs and between SHGs and banks. Another important aspect is that they assist in reducing the transaction costs of SHG-bank linkage programme by grouping 10-20 accounts into one single SHG account. The federations help in reduction of loan default-both within SHGs and from SHGs to banks. They provide micro-insurance services and social services such as education, health and livestock support. The federations employ their own resources in promoting new SHGs while minimising the promotional costs as compared to other agencies like the banks and NGOs. They also help in empowering the SHG members.

MYRADA (1999), Sa-dhan (2006), CS Reddy (2004) and Shashi Rajagopalan (2006) are the other prominent SHG federation related studies that have been conducted in India. These studies broadly bring out the rationale behind the promotion of federations in following terms;

- It helps in strengthening existing SHGs.
- It facilitates formation of new SHGs of the poor.
- It enables SHG members to access myriad services which individual SHGs could not have managed to access.
- It helps in developing a sense of solidarity among members of different SHGs in an area.
- It enhances sustainability of SHGs.
- It facilitates SHG Bank linkage.
- Federations play an important part in SHG capacity building and conflict resolution - both internally and externally.

As per these studies, the concept of federation emerged from the felt need of the SHGs that have been functioning well and were keen to come together for sharing and learning. Each promoter has different reason(s) for federating SHGs at different levels. The reasons include i) scaling up, ii) withdrawal strategy, iii) issue based, iv) collective bargaining power, and v) principle of subsidiary.

Findings of the Study

Based on our field visits we got an overwhelming feedback that SHG Federations are promoted for strengthening existing SHGs, promoting new SHGs of the poor and for helping member SHGs to access various services from government and banking sector. We also found that Federations play a very important part in SHG capacity building. Based on this, we could safely proceed with a hypothesis that since SHGs belonging to Federations have the benefit of constant oversight by higher tier, their quality should be better as compared to other SHGs. To validate this, data was collected on various parameters to compare the quality of SHGs belonging to Federations and other SHGs.

In this exercise, an attempt has been made to compare the differences in quality of SHGs between SHGs under the umbrella of Federations and other SHGs which are not part of Federation. For this purpose, 100 SHGs belonging to 10 Federations and 100 SHGs working in similar socio- economic, cultural and geographical milieu but not parts of a Federation have been studied and compared.

Quality is the major challenge that the SHG movement is confronted with at this point of time in the country. To assess the quality of SHGs, NABARD developed a rating tool known as critical rating index (CRI) and advised all banks to assess the quality of groups using the CRI before every credit linkage. The CRI basically consists of two sets of variables, namely governance and systems related variables and financial management related variables. Governance related parameters include periodicity of meetings, attendance in the meetings, decision making process in the meeting, observation of norms, saving and loan installment collection methods, lending procedure, rotation of leadership, book keeping and so on. Financial management related parameters include periodicity and regularity of saving, use of savings for internal lending, lending rates, lending norms, regularity in loan repayment, etc.

Various quality parameters of SHGs under the umbrella of Federations and other SHGs have been collected based on CRI.

Characteristics of SHGs Studied

Main characteristics of sample SHGs are given in Table 3. From Table 3, it is evident that two sample groups (Federation SHGs and Non Federation SHGs) are more or less similar in terms of their membership size and age.

Table 3: SHG Sample Description

Particulars	Federation SHG	Non Federation SHG (Control Group)
No. of Sample SHGs	100	100
SHG - Only Women members	100	99
SHG - Only Men members	0	1
SHG - Mixed	0	0
Average number of members per SHG	13.4	13.8
Age of SHGs *(Figures in percent)*		
0-2 Years Old	22	24
2-4 Years Old	34	38
> 4 Years Old	44	38
Average number of years of existence	4.6	4.3

Source: Based on Primary Data

Composition of SHGs

SHGs are expected to primarily help poor people. The composition of SHGs in terms of BPL membership has been summarised in the Table 4.

Table 4: Composition of SHGs

Particulars	Federation SHG	Non Federation SHG (Control Group)
Having only BPL members	18	15
Having > 5 BPL Members	42	41
Having 1-5 BPL members	40	44
Av. number of BPL members per group (no.)	5.3	5.8
BPL members as a % of total members of SHG	39.5%	42%

In terms of representation of BPL population in groups also it is observed that two sample groups (Federation SHGs and Non-Federation SHGs) are almost identical. However, it is encouraging to note that BPL forms a sizeable chunk of membership of SHGs, both under Federation category and Non-Federation category.

Frequency of Meetings and Savings of SHGs

Table 5 summarises the frequency of group meetings and the frequency at which savings are collected by the groups.

It is observed that meeting and saving on a monthly basis seems most popular as more than four-fifth of the SHGs seem to have preferred monthly meeting and savings to other kinds of periodicity both under Federation category and Non-Federation category. Nearly 14 percent of SHGs save weekly. We did not come across any SHG resorting to saving fortnightly or once in two months.

Table 5: Frequency of Meetings and Savings of SHGs

(Figures in percent of SHGs)

Particulars	Federation SHGs	Non Federation SHGs (Control Group)
Once in a month	84	88
Fortnightly	0	0
Weekly	16	12

Level of Awareness of SHG Members

The SHG members' awareness and understanding about the purpose of the group and the reason behind the formation of SHG is considered to be the core for the SHGs to sustain. Our field assessments have shown that members of SHG (of both categories) by and large have good awareness about the activities taking place in the group, individual savings, loan details bank procedures, etc. In some of the Non-Federation SHGs, especially in Dausa district of Rajasthan, Rae Bareli district of UP and Pune district of Maharashtra, it was observed that some of the processes followed by SHG members were not as per recommended practices. Some of the examples are given below;

- Quality of book keeping was poor; delay in updation and absence of signature of members attending the meetings.
- Group members did not remember when the group was set up.
- Bank loan received by the group was distributed equally among the members.
- One group, which was more than a year old, had saving of Rs. 13,000/- but it had not started internal lending nor applied for bank linkage.
- Savings amount was distributed among members after 5 years.

The SHG members of both categories were observed to actively participate in the group activities and decision making process also.

Further, it was also observed that about 90 percent of SHGs belonging to both categories had rules and regulations in written form and the same was available to any SHG member if required.

Attendance in Meetings of SHGs

The level of attendance in SHG meetings in both categories of SHGs has been summarised in Table 6.

Table 6: Attendance in Meetings of SHGs

(Figures in percent of SHG members)

Particulars	Federation SHGs	Non Federation SHGs (Control Group)
0-2 Years Old	94	89
2-4 Years Old	95	87
> 4 Years Old	91	83
Combined average	94	86

It is observed that the level of attendance in group meeting in Federation SHG is higher than that of non Federation SHGs. It is an expected outcome. Based on our field observations, this can easily be attributed to that fact that Federations monitor SHG meetings closely and by and large there is always some representative/community worker who is present during the meeting.

Average Monthly Savings of SHG Members

The data relating to average monthly savings of SHG groups in both categories of SHGs has been shown in the Table 7.

Table 7: Average Monthly Savings of SHG Members

(Figures in percent)

Amount (in Rupees)	Federation SHGs	Non Federation SHGs (Control Group)
0- 20	6	22
20-50	43	42
50-100	51	35
>100	0	1
Combined Average	Rs.72	Rs.62

Based on the financial strength of the members, each SHG fixes a certain amount as mandatory savings. In our sample, the average saving per member amounted to Rs.67/- per month for the entire sample SHGs. It is observed that members save more in case of Federation SHGs as compared to Non-Federation SHGs. In case of Federation SHGs, majority of them save more than Rs.50/- per month while in case of non Federation SHGs only 36% of SHGs save more than Rs. 50/- per month. Federation SHGs save higher amount as compared to Non-Federation SHGs because of better understanding of benefits emanating from cumulative effect of higher amount of regular savings.

Annual Savings per Member in Terms of Age of SHGs

The data relating to annual average savings of SHG groups in both categories of SHGs has been shown in the Table 8.

Table 8: Annual Savings per Member in Terms of Age of SHGs

(Figures in Rupees)

Age of SHG	Federation SHGs	Non Federation SHGs (Control Group)
0-2 Years Old	576	480
2-4 Years Old	828	696
> 4 Years Old	912	768
Combined Average	864	744

As observed earlier, members save more in case of Federation SHGs as compared to Non Federation SHGs.

Cumulative Savings of Group

The data relating to annual cumulative savings of SHG groups since the time of group formation (on the date of data collection) in both categories of SHGs has been summarised in Table 9.

It was observed that the average amount of funds available with SHG (including savings, interest earned, fines and other miscellaneous incomes) stood at Rs. 49,860 for Federation groups and Rs. 33,660/- for non-federation groups. One of the reasons for such a high difference in group's funds was that in case of federation groups, two groups

Table 9: Cumulative Savings of Groups in 2010

(Figures in Rupees)

Age of SHG	Federation SHGs	Non Federation SHGs (Control Group)
0-2 Years Old	7,718	6,293
2-4 Years Old	33,286	23,814
> 4 Years Old	61,104	41,992
Combined Average	49,860	33,660

had distributed savings after five years whereas in case of non Federation group this was done in respect of 18 groups. From this it is evident that non federation groups did not clearly recognise the importance of growing kitty of group savings in terms of leveraging external credit and in terms of high interest earning for each member when the fund is used for internal lending.

Utilization of Group's Savings for Internal Lending

The data relating to utilization of savings of SHG groups for internal lending (on the date of data collection) in both categories of SHGs has been given in the Table 10.

Table 10: Utilization of Group's Savings for Internal Lending

(Figures in percent of Group's Savings)

Age of SHG	Federation SHGs	Non Federation SHGs (Control Group)
0-2 Years Old	54	32
2-4 Years Old	64	44
> 4 Years Old	59	43
Combined Average	61	41

As on the date of data collection (during Feb-April 2010), it was observed that 51% of groups savings (along with interest and other receipts like fine, etc.), for the entire sample SHGs taken together, was deployed for internal lending to members. Rest of the amount was kept either in the savings bank account or in the form of cash with the group. The extent of deployment of group's savings for internal lending was higher in case of Federation SHGs as compared to Non-Federation SHGs. This is another indicator reflecting better financial management practice in Federation SHGs as compared to non-federation SHGs.

Interest Rate Charged on Lending by Groups

Table 11 gives the details regarding interest rate charged on lending by Groups.

Table 11: Interest Rate Charged on Lending by Groups

(Figures in percent of SHGs)

Rate of Interest	Federation SHGs	Non Federation SHGs (Control Group)
Depending on Purpose	3	1
Less than 18%	9	8
18-30%	80	91
> 30%	8	0

Groups were found to charge same interest rate on internal lending as well as lending of funds received from external sources. It was observed that almost 80% of groups were charging interest rate of 24% p.a. on internal lending as well as lending of funds received from external sources. Groups belonging to Gramin Mahila Swayamsiddha Sangh (GMSS), Samsthan Narayanpur Kalanjia Sangamitra and Janani Mahila Vikash Parisada were charging around 30% p.a. from their members on loans taken by them.

Group Members Benefiting from Internal Lending

The data relating to extent of SHG members benefiting from internal lending (on the date of data collection) in both categories of SHGs has been given in Table 12.

Table 12: Group Members Benefiting from Internal Lending

(Figures in percent of SHG members)

Age of SHG	Federation SHGs	Non Federation SHGs (Control Group)
0-2 Years Old	24	16
2-4 Years Old	66	46
> 4 Years Old	76	58
Combined Average	70	52

It is observed that the percent of SHG members benefiting from internal lending in respect of Federation SHGs was higher as compared to non Federation groups. This can be interpreted in terms of more inclusive beneficial impact of internal lending in case of Federation SHGs as compared to the control group.

Percent of SHGs Credit Linked

The data relating to extent of Bank linkage of SHGs (in both categories) has been given in Table 13.

Table 13: Percent of SHGs Credit Linked

(Figures in percent of SHGs)

Age of SHG	Federation SHGs *	Non Federation SHGs (Control Group)
0-2 Years Old	44	32
2-4 Years Old	81	66
> 4 Years Old	88	75
Combined Average	76	61

* Also includes credit linkage with MFIs as in case of Gramin Mahila Swayamsiddha Sangh (GMSS), Samsthan Narayanpur Kalanjia Sangamitra and Janani Mahila Vikash Parisada.

As on the date of data collection (during Feb-April 2010), it was observed that 76% of Federation SHGs were credit linked as against only 61% of Non-Federation SHGs. This clearly brings to fore the useful role played by Federations in enabling groups to access external funds.

Repeat Bank Linkages

The data relating to extent of repeat bank linkage (in terms of number of times bank has provided credit to groups) of SHGs (in both categories) has been shown in the Table 14.

Table 14: Number of Times SHGs Accessed Credit from Banks

Age of SHG	Federation SHGs	Non Federation SHGs (Control Group)
0-2 Years Old	1.8	1.2
2-4 Years Old	2.8	1.6
> 4 Years Old	3.6	2.2
Combined Average	3.2	1.9

On an average, for all the groups taken together, SHGs had got CC limit sanctioned by banks more than two times during their entire period of existence. The Federation SHGs, on an average, could manage to get CC limit sanctioned 3.2 times by banks as against only 1.9 times by Non-Federation SHGs. This further confirms the beneficial role played by Federation in helping SHGs to access bank credit more frequently.

Cumulative Amount of Credit Sanctioned by Banks

The data relating to cumulative amount of credit sanctioned by banks to SHGs (in both categories) has been shown in Table 15.

An analysis of cumulative amount of loan sanctioned by Banks to credit linked SHGs indicate that Banks, on an average, sanctioned an amount of Rs. 65,655 to Federation SHGs and for non Federation SHGs this amount stands at Rs. 51,140/- This clearly established that presence of Federations facilitates groups to access more credit from Banks.

Table 15: Cumulative Amount of Credit Sanctioned by Banks

(Figures in Rupees)

Age of SHG	Federation SHGs	Non Federation SHGs (Control Group)
0-2 Years Old	18,330	14,685
2-4 Years Old	66,450	50,625
> 4 Years Old	84,610	66,180
Combined Average	65,655	51,140

Group Members Benefiting from Credit Sanctioned by Banks

The data relating to percentage of members of SHGs (in both categories) benefiting from Bank linkage has been shown in the Table 16.

It is evident from Table 16 that while 62% of SHG members of Federation SHGs could get the benefit of loan accessed from Banks, the same stood at only 44% in case of Non-Federation SHGs. This indicates that presence of Federation helps more SHG members to get the benefit of external credit.

Table 16: Group Members Benefiting from Credit Sanctioned by Banks

(Figures in percent)

Age of SHG	Federation SHGs	Non Federation SHGs (Control Group)
0-2 Years Old	36	22
2-4 Years Old	58	43
> 4 Years Old	64	48
Combined Average	62	44

It was also observed that the average amount of loan availed by a group member (including internal loan) stood at Rs. 5,833/- for Federation SHGs while the same stood at Rs. 4,271/- for Non-Federation SHGs.

Educational Level of SHG Members

In order to study the percentage distribution of SHGs by literacy level of the members of the groups, the SHGs were divided into three categories:

- those in which all the members of the group are literate,
- those in which more than 50 percent of the members were literate, and
- those in which less than 50 percent of the members were literate.

The data relating to literacy levels of members of SHGs (in both categories) benefiting from Bank linkage has been shown in the Table 17.

Table 17: Educational Level of SHG Members

(Figures in percent of SHGs)

Particulars	Federation SHGs	Non Federation SHG
All the members of the group are literate	13	19
More than 50 percent of the members are literate (excluding groups having all literate members)	23	31
Less than 50 percent of the members are literate	64	50
Overall percent of literate members	*63*	*68*
Percent of SHGs reporting increase in number of literate members since formation of Group	61	78

It was observed that the literacy level was higher in Non-Federation SHGs as compared to Federation SHGs. One of the reasons for this was that most of the Non-Federation SHGs did not have the support of Federation for writing books of accounts and, therefore, they were encouraged by SHPI to learn writing their books themselves.

Quality of Book Keeping

The quality of maintenance of books in respect of both categories of SHGs has been summarised in Table 18.

It was observed that incase of Federation SHGs, books of accounts (minutes book, attendance register, members pass book, etc.) were written by *Samooh Sakhi* (local resource person) for which they were paid by the group. This made the group dependent on outsider to write their books. In case of Non-Federation

SHGs, groups managed this function on their own.

The quality of book keeping system in the SHGs of both categories was found to be a matter of concern, books were available but not updated. In most cases, the minute books were updated every month; other books like loan register, saving register were updated when the book keepers had sufficient time to update.

Table 18: Maintenance of Books of Accounts

(Figures in percent of SHGs)

Books of accounts written by	Federation SHGs	Non Federation SHG
A literate member of SHG	22	46
Representative of Federation / NGO	14	12
Person employed by SHG (local resource person)	42	4
Any other (relatives, friends)	22	38
Without outside assistance	22	46
With outside assistance	78	54

Governance of SHGs

The information regarding rotation of leadership in respect of both categories of SHGs has been given in the Table 19.

Table 19: Rotation of Leadership

(Figures in percent of SHGs)

Age of SHG	Federation SHGs	Non Federation SHGs (Control Group)
Groups in which leadership was changed even once since inception	06	21

Only 6 out of 100 Federation SHGs reported change of leadership even once during the entire lifetime of the SHG. In case of Non-Federation SHGs, the incidence of changes in leadership was much higher at 21. During the field study it was observed that in many of the SHGs, the members wanted and preferred the highest educated among them to be the leader since number of members were illiterate. Further, it could be also in the interest of the Federation/NGOs to appoint a capable as well as literate member of the group as the leader so that the running of the SHG is smooth. The concern for smoothness in day to day operations could be an important reason for persistence with the same group leader over a period of time.

Summary

SHG federation members are SHGs, and they are the purpose for the federation to exist. Hence the performance of the SHGs is very important in assessing the overall performance of the federation. In this section quality of SHGs in terms of a number of parameters has been analyzed and the summary of the same is given in the Table 20.

Conclusions

From the foregoing, it clearly emerges that the quality of Federation SHGs on parameters related to financial management (savings, inter lending, bank linkage, amount of credit from external sources and so on) is better as compared to the non Federation SHGs. On parameters related to general management

Table 20: A Comparative Analysis of Quality of Groups

SN	Parameter	Federation SHGs	Non Federation SHGs
1	BPL members as a % of total members of SHG	No difference	
2	Frequency of meetings	No difference	
3	Attendance in meetings of SHGs	Higher	
4	Level of awareness about functioning of SHGs among members	Higher	
5	Average monthly savings of SHG members	Higher	
6	Annual savings per member in terms of Age of SHGs	Higher	
7	Cumulative savings of the group	Higher	
8	Utilization of group's savings for internal lending	Higher	
9	Interest rate charged on lending by groups	No difference	
10	Percent of group members benefiting from internal lending	Higher	
11	Percent of SHGs credit linked	Higher	
12	Number of times SHGs accessed credit from banks	Higher	
13	Cumulative amount of credit sanctioned by banks	Higher	
14	Percent of group members benefiting from credit sanctioned by Banks	Higher	
15	Educational level of SHG members		Higher literacy level
16	Maintenance of Books of Accounts		Lesser dependence on outsider
17	Rotation of leadership		More frequent

practices (frequency of meetings, level of attendance, level of awareness regarding objectives of SHGs, availability of written rules and regulations and so on both categories of SHGs were found to be more or less similarly placed. In terms of governance (rotation of leadership) and writing of books of accounts Non-Federation SHGs exhibited better quality as compared to Federation SHGs.

Therefore, it can be concluded that presence of Federation has indeed helped SHGs to manage their financial operations better as compared to Non-Federation SHGs. In a way, it has helped in imparting sustainability to the operations of the SHGs.

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NOTE

1 This paper is part of a larger study "SHG Federations: Challenges and Opportunities" conducted by the author under the aegis of Centre for Microfinance Research at Bankers Institute of Rural Development, Lucknow.

Cost of Microfinance Borrowing: An Empirical Study on Clients' Perspective

Pinky Dutta* and Debabrata Das*

Other than interest rate, transaction costs are also associated with loan while applying and obtaining credit from MFIs. These costs are higher than the financial cost. The main reason for the failure of the credit programs was the high transaction cost and lack of creditability of the borrowers.

Abstract

Many developing countries initiated subsidized credit programs with the objective of creating credit facilities for their rural population. It was realized that some of these credit programs were not effective enough in meeting the requirements of lenders and borrowers, because of large transaction cost and lack of creditability of the borrowers. Microfinance institutions (MFIs) adopted group based lending system with the objective of decreasing transaction costs and other associated problems. The interest rate charged on loans is not the only cost of credit but are other costs associated with it. To evaluate the viability and efficiency of any credit program it is necessary to analyze the costs from the clients' perspective.

Introduction

Providing access to credit is considered an important step in raising income levels. During the period of 1960s to 1970s, many developing countries initiated subsidized credit programs with the objective of creating credit facilities for their rural population. However, later it was realized that some of these credit programs were not effective enough in meeting the requirements of lenders and borrowers (Llanto, 2004 and Hosseini et al. 2012). The main reason for the failure of these programs was the high transaction cost and lack of creditability of the borrowers. Microfinance institutions (MFIs) adopted group based lending system with the objective of decreasing transaction costs and other associated problems.

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Key Words: Microfinance Institutions, Cost of Borrowing Self-Help Groups

Despite the efforts of MFIs in providing credit to the poor at an affordable cost, the costs of microfinance services have always been debated among researchers and practitioners. In some countries, such as Brazil, Nigeria, India, Pakistan etc., MFIs seem to charge high interest rates from borrowers (Hossieni et al, 2012). The use of coercive methods for loan recovery by some MFIs in Andhra Pradesh in South India refueled the whole issue and in response to such events Reserve Bank of India (RBI) fixed the interest rates, processing charge and margin-cap for MFIs (RBI, 2011).

Given the importance of the cost of availing loan from MFIs, several researchers have studied the cost components of MFIs in India and other developing countries. However, not much seems to be known about the charges borne by the clients of the MFIs in the north east region of India, particularly in Assam. The interest rate charged on loans is not the only cost of credit. There are other costs associated with loan while applying and obtaining credit from MFIs. These are known as transaction costs which are un-avoidable and sometimes these costs are higher than the financial cost (Rojas and Rojas, 1997). Hence, to evaluate the viability and efficiency of any credit program it is necessary to analyze the costs from the clients' perspective. The aim of this paper is to analyze the cost of borrowing for the clients while availing credit from MFIs in Assam, India.

Review of literature

Substantial research work has been done on MFI cost components and their impact on the total cost of MFIs in different countries, Hartarska et al., 2006; Ranade et al., 2006; Churchill and Frankiewicz, 2006; Shankar, 2007; among the most recent. Transaction cost has been widely studied by several researchers. Transaction costs are incurred by economic exchanges across a separable interface (Williamson, 1979). In case of MFIs the exchange takes place between the institution and the client. Transaction cost includes all implicit and explicit costs incurred by the participants involved in a financial transaction (Adams, 1994). Igwe and Egbuson (2013) argued that transaction cost is the non interest expenses incurred by both lenders and borrowers in making, servicing and collecting loans. For microfinance institutions, the cost of transaction revolves around the delivery of services to their customers. The cost varies with lending methodology, location of client, loan features and process involved in loan disbursement (Shankar, 2007). Puhazhendi (1995); Srinivasan and Satish (2000) and Seibel and Dave (2002) have studied the cost effectiveness of delivering credit through the intermediation of NGOs and SHGs in India. They assert that the cost of lending is reduced by 21 to 41 percent for the banks and 85 percent for borrowers due to the intermediation of NGOs and SHGs. In case of MFIs the group lending method involves some particular cost component, such as group formation cost, cost of training the borrowers, cost of monitoring and collection cost (Thorat, 2006; Shankar 2007). In an empirical study, Facihini et al. (2008) observed that the group lending model imposes several constraints, such as compulsory savings, participation in meetings and attending weekly courses, etc. Also the transaction cost to individual borrowers is lower than the soliditory groups in rural areas of Brazil. The meeting schedule of the groups seems to affect the cost of the MFIs. Shankar (2007) report that weekly collection increases the total direct cost of MFIs in India. In case of SHGs, weekly meeting schedule against the monthly schedule increases the cost of the SHGs by 34% (Karduck and Seibel, 2004). It is also observed that members forgo some earning opportunity to attend the meetings.

The number of papers focused on the cost of borrowing from the clients' perspective seems to be relatively less. There are a few studies undertaken in South India, Brazil and Iran, for instance, Puhazhendi, 1995; Karduck and Seibel, 2004; Swami and Tulasimala, 2011; Facihini et al., 2008; and Hosseini et al. 2012. Far less seems to be known about MFIs and their clients in the North East of India. The aim of the paper is to fill up this gap to some extent. Here the cost of borrowing has been studied from the perspective of the clients of MFIs in Assam, India.

Cost Components

From the perspective of MFI clients, the total cost comprises of transaction cost and financial cost. Financial cost includes interest, fees, commissions, insurance fund contributions, savings requirements, etc., whereas transaction cost includes the various charges imposed by the lenders as interest (Untalan and Cuevas, 1989; Masuko and Marufu, 2003). It involves the cost of initial visit to MFI branch which includes opportunity cost of one day wages, transportation cost of the visit; cost of procuring the necessary documents, etc. Rojas and Rojas, (1997) and Hossieni et al. (2012) summarised the total cost of obtaining credit as,

$$TCC = IC + TC,$$

where, TCC stands for total credit cost, IC for interest cost and TC for transaction cost. From the empirical studies of Masuko and Marufu, (2003); Hosseini et al. (2012), it was observed that loan size, distance of the borrower's residence from the financial centre, traveling cost and security cost comprises of 80% of the total transaction cost. Facihini et al. (2008) reported that the total transaction cost corresponded to 2.22% of the loan amount. They also found that the cost for borrowers with lower loan amount is higher than for borrowers with higher loan amount. Puhazhendi (1995) and Swami and Tulasimala (2011) identified travel cost and incidental cost, documentation expenses and opportunity cost as the main components of borrowers' transaction cost. More than 35% of the total transaction cost was incurred in visiting the MFI offices. Opportunity costs of SHG members included the value of time spent on meetings, financial matters outside of meetings and bank-related travel. It was observed that the opportunity cost was higher when the MFIs followed frequent collection process.

Fachini et al. (2008) found that opportunity cost consists of 40% of the total transaction cost for borrowers, whereas Karduck and Seibel (2004) reported that opportunity cost for SHG members stood for 2.3% of loans outstanding. The recent study of Dehem and Hudon (2013) compares the transaction cost of rural and urban clients of Karnataka and Tamilnadu. They reported that the transaction costs are still relatively low compared to the main cost of loans, i.e., their interest rates.

The above mentioned studies identified some important variables that effect the transaction cost for borrowers. In the present study some additional variables based on field experience have been considered along with those mentioned above. It was observed that the majority of the studies considered only the clients' transaction cost and did not take into account the financial cost. Here both the transaction cost and financial cost incurred by the client in one loan cycle have been considered.

Data

A survey was carried out to gather data on the cost borne by the clients of seven leading microfinance institutions operating in Assam. MFIs in Assam satisfying the following criteria were considered, viz.

(a) the number of active clients by 2012 exceeding 2,000,
(b) more than three years of operations in Assam, and
(c) operating as For-Profit Non Banking Financial Companies (NBFCs) or Non Government Organizations - Microfinance Institutions (NGO-MFI).

Based on the above criteria, three state level NBFCs, two National level NBFCs and two state level NGO-MFIs operating in Assam were considered (Table 1).These

Table 1: List of Selected MFIs Considered in the Study

	Name of the MFI	Legal Structure	Number of Active Borrowers as on 31st March 2013
State level Microfinance Institutions	ASOMI Finance Private Limited	NBFC	51,929
	RGVN (NE) Microfinance Private limited	NBFC	162,575
	Prochesta	NGO-MFI	7,783
	Morigaon Jila Gramya Puthibharal Sanstha (MZGPS)	NGO-MFI	6,756
	Nightingale Finvest Private Limited	NBFC	21,270
National Level Microfinance Institutions	UNACCO Financial Services Private Limited	NBFC	61,569
	Bandhan Financial services private limited	NBFC	4.4 million

Source: http://www.unacco.in/files/AnnualReport12.pdf,; http://www.mixmarket.org/mfi/country/India
http://www.sa-dhan.net/files/Sa-dhan-indian-map.htm

organizations had more than 250 branches scattered over the state. The highest number of branches were in Kamrup and Sonitpur districts, followed by Barpeta, Jorhat and Morigaon districts of Assam. These districts are spread over the upper, central and lower part of Assam. The data consist of responses of 503 clients of the seven MFIs spread over these five districts.

An interview was carried out with 503 clients belonging to these seven MFIs. A structured schedule was used to collect information from clients. The schedule comprised of three parts:

a. Information about the client
b. Loan information about the client
c. Transaction cost of the client

Period of data collection: The data was collected from June 2013 to April 2014.

Lending Models of MFIs

The MFIs in Assam use three different lending models for providing loan to clients. In the first model, loan is provided to a group of 30-35 clients (referred to as bigger group), the second group had 10-20 members, i.e., Self-Help Group (SHG) and the third model is Joint Liability Group (JLG) with five members.

Table 2: Characteristics of the Sample

Lending Model	Number of Groups
JLG	40
Larger group	10
SHG	25
Total	75

In Table 2 the number of groups and respondents interviewed under each category are listed. Our sample consists of 40 JLGs, 25 SHGs and 10 bigger groups.

General Feature of the MFIs in the NE Region

In Table 3, general features of the MFIs considered for the study is explained. From this it is observed that the majority of the NBFCs follow the JLG lending model, whereas NGO-MFIs follow the SHG model. The MFIs offer one year and two year loans, and their interest rates vary from 18% to 26% p.a., on the reducing balance. All the MFIs collected passport photograph, identity proof (ID) and address proof from the borrower. The repayment schedule of NGO-MFIs was different from that of NBFCs. All the NBFCs collected repayment on weekly basis, whereas NGO-MFIs collected the same on monthly basis.

Methodology: Assessment of Total Cost of MFI Clients

For the present study activity based method[1] is adopted. This method is widely used to calculate the total borrowing cost for the poor (Swamy V and Tulasimala, 2011). The various activities involved while availing loan from microfinance institutions are broadly categorized into two categories, viz., transaction cost (includes documentation cost, transportation cost, incidental cost), and financial

Table 3: General Feature of the MFIs

Name of the MFI	Lending Model	Loan Tenure	Interest Rate	Insurance Service (Yes/No)	Documents Required	Repayment Schedule
ASOMI Finance Private Limited	SHG	12 months	25.50%	no	Photograph of the borrower and certificate from village head	weekly
RGVN (NE) Microfinance private limited	Individual and JLG	12 and 24 months	26%	yes	Photographs, address proof, ID proof, Stamp paper, and revenue stamp	weekly
Nightingale Finvest Private Limited	JLG	12 and 18 months	25%	yes	Passport photograph of the borrower, voters list, PAN card and address proof	monthly
UNACCO Financial Services Private Limited	JLG	12 months	26%	yes	Passport photograph of the borrower, ID proof and address proof of both the borrower and guardian	weekly and fortnightly
Bandhan Financial Services Private limited	Larger groups	12 and 24 months	22.90%	yes	Passport photograph of the borrower, voters list, PAN card and address proof	weekly
Prochesta	Individual and SHG	12 and 24 months	24%	yes	Photographs, address proof	monthly
Morigaon Jila Gramya Puthibharal Sanstha (MZGPS)	Individual and SHG	12 and 24 months	18%	no	Group photograph of the members Stamp paper, Quartz paper with revenue, NOC from guardian	monthly

cost. The components for transaction cost are gathered through pilot survey as these are not standardised or similar for every MFI. The Total Borrowing Cost (TBC) is the summation of transaction cost (TC) and Financial cost (FC) i.e.,

$$TBC = TC + FC$$

The cost items included in the study are discussed as follows:

Transaction cost (TC) for the clients is measured by adding the cost incurred in documentation cost, transportation and in incidental work. Opportunity cost is another important component of the TC. Documentation cost includes the cost of documents such as address proof, identity proof, proof of relationship, age proof for insurance service, certificate from village head, photographs, etc. The clients also maintain group register to record regular savings, internal and external loans, etc. In case of SHGs they have their group stamp pad, and also in some cases the group bought sitting mat to conduct the meetings. Some MFIs take stamp paper and revenue stamp from clients before disbursement of loan. Transportation and incidentals costs are those costs incurred by the clients while visiting the MFIs for availing loan, to the banks for enchasing cheques and also for withdrawing money and depositing group saving amount. These visits included long distance travel. In some cases, cost of light refreshment were also included

Financial cost (FC) includes insurance cost, processing or documentation cost, service tax and interest paid. Insurance, processing or documentation, service tax is fixed in proportion to the loan amount and collected at the time of loan disbursement. Interest cost is spread over the entire tenure of the loan and calculated on a reducing basis. For instance, if the loan is of one year tenure and repayment is spread over 52 weeks. The installment amount for 51 weeks is L_o and installment amount for 52^{nd} week is L_1. Hence, the total repayment amount (including interest) equals to $51(L_o)+L_1$.

The TBC is expressed as percentage of the loan amount. TC and FC are expressed as percentages of the TBC and also of the loan amount (L). Thus, we find (TC/TBC) x100, (FC/TBC) x 100 and (TC/L) x 100, (FC/L)x 100. These percentages provide insight into the extent of impact TC and FC have on TBC and loan amount. The findings of this study are based on these ratios and percentages. The components included for analyses are only those which are directly related to the application, processing and maintaining credit. Detailed information and cost regarding the activities were gathered from the clients and also verified from the MFI branches.

Data Analysis

Part I: Information about the Clients:

Table 4 provides a brief overview of the respondents. The data set comprises of responses of 503 women clients.

Some of the main observations are as follows.

1. Majority (55.3%) of the respondents were within the age group of 31-45 years, while 23.3% of the respondents were above 46 years of age.
2. The data on educational qualification showed that 11.0% of the respondents were illiterate, whereas only 2. 8% of the total respondents had access to secondary level education.
3. Only 11.13% of the respondents had monthly income of above ₹5000, and 40.6% had annual surplus income (income after all expenditures) below ₹3000.
4. Self-employment activities like livestock farming and small business (initiated or expanded with loan from the MFI), were the main sources of income. 96.8% of the respondents were engaged in their own business, whereas only 3.2% had jobs.

Table 4: Profile of Respondents

Parameters	Options	Frequency	%
Gender	Female	503	100.0
Age	18-30yrs	108	21.5
	31-45yrs	278	55.3
	46 and above yrs	117	23.3
Source of income	Agricultural farmer	7	1.4
	Livestock farming	208	41.4
	Small business	272	54.1
	Job	16	3.2
Educational qualification	Illiterate	54	11.0
	Education up to primary level	174	34.6
	Education up to class VII	124	24.7
	Matriculate	136	27.0
	Undergraduate	14	2.8
	Above graduation	1	0.2
Monthly income of the household	Below ₹3000	243	48.3
	₹ 3000-5000	204	40.6
	Above ₹5000	56	11.1
Bank account	Yes	336	66.1
	No	167	33.2

Table 5 provides information on member selection and account maintenance behavior of the respondents.

5. As many as 67.6% of the members obtained information about the facilities of the MFI from their friends and relatives. Only 26.4% were encouraged by the MFI officials to form groups. For instance, it was observed that in case of MZGPS the groups were formed by the NGO-MFI to distribute loans/provide facilities from institutions like National Bank for Agriculture and Rural Development (NABARD), Small Industries Development Bank of India (SIDBI), etc.

Table 5: Group characteristics

Parameter	Options	%
Source of information	NGO / MF	26.4
	Govt. official	6.0
	Friends/relatives	67.6
Initiator of group formation	Members themselves	89.2
	NGO/MFI	10.8
Selection criteria for group members	Income source	9.6
	credit history	29.0
	Reputation	30.0
	Relationship with villagers	17.2
	Location of residence	14.4
Bank account for the group	Yes	21.2
	No	78.8
Mobilization of savings among group members	Yes	21.2
	No	78.8
Frequency of mobilization	Daily	0.0
	Weekly	0.0
	Fortnightly	0.0
	Monthly	84.9
	Quarterly	15.1

6. 89% of the groups were formed by the members themselves. The MFIs supported the formation of such groups, as they seemed to sustain for longer periods and were more liable for group responsibilities. Members were usually selected on the basis of their reputation in the village (30%) and credit history (29%).
7. Only 21% of the members had group account in the bank with regular transactions of ₹20 to ₹50.

The saved amount of a group was generally used to provide internal loans to needy members at an interest rate of two to five percent per month. The members were more inclined to mobilize their savings for internal loans, instead of depositing it in bank accounts. The reason behind this was that while most of banks provided interest of 4% annually on saving accounts, the groups earned higher interest from the internal loans.

Part II: Cost Components from the Clients' Perspective:

From the perspective of MFI clients, the costs involved in availing loan can be divided into two broad categories, viz., transaction cost and financial cost. In the next section, the total borrowing cost of the respondents in availing first loan only has been highlighted.

Transaction cost: Transaction cost consisted of a) documentation cost, and b) transportation and incidental cost. Table 6 shows the total transaction cost incurred by clients in availing the first loan. The cost of documentation included the cost of register, stamp pad, stationary, group photograph, individual photo-

Table 6: Transaction Cost of Respondents in Availing First Loan

	Mean	Std. Deviation	Minimum (in ₹)	Maximum (in ₹)
A. Initial cost (for individual respondents)				
Cost of Register (Record books maintained by the groups)	7.94	8.55	1.00	24.00
Cost of stamp pad	1.49	3.57	0.00	10.00
Cost of stationery	1.27	0.45	1.00	2.00
Cost of sitting mat	4.53	6.56	0.00	17.00
B. Cost of documentation (for individual respondents)				
Cost of group photograph	0.30	0.71	0.00	2.00
Certificate from village head	14.73	8.20	0.00	20.00
Cost of stamp paper	0.72	1.28	0.00	4.00
Cost of revenue stamp	0.46	0.50	0.00	1.00
Cost of joint or individual photographs	32.43	11.10	20.00	50.00
Cost of duplication of address proof, PAN card	2.16	1.78	1.00	8.00
C. Transportation and incidental cost				
Transportation cost	18.85	20.83	0.00	60.00
Incidental cost	0.74	1.88	0.00	10.00
Total cost (A+B+C)	85.63	35.12	30.00	142.00

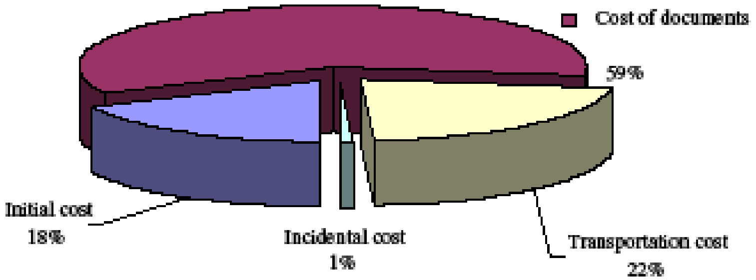
Note: In some cases the cost is "0" as no cost was associated with the activity

graph, revenue stamp, certificate from village head, address proof and identity proof. Transportation cost included the cost of traveling to the MFI and bank for availing loan. In addition to this, the group incurred cost in buying sitting mat for conducting meetings, and other incidental cost and opportunity cost.

The main observations from Table 6 are as follows:

1. *The initial cost* in case of first loan included the cost of register, stationary and sitting mat. The major part of initial cost included the cost of register, which was required to maintain group attendance record, minutes of the meetings and record of internal loans. In case of SHGs, it was observed that they maintained three separate registers for each activity, which hiked their initial cost (Annexure Table 1). In addition the SHGs of ASOMI Finance Private Limited have their own stampad, which incurs a cost of Rs 10 per member. Whereas, the JLGs and large groups maintained only one register to record their attendance and meeting minutes. Hence, the initial cost was higher for the SHGs as compared to other lending models. In case of SHGs the initial cost for an individual member varied from ₹17 to ₹24. Another major part of initial cost was incurred by the groups in buying sitting mat for group meetings. This cost reduced in the second loan cycle as the groups did not need to incur all the initial costs. The documentation cost varied substantially from one MFI to another. One of the reasons of such heterogeneity in documentation cost appeared to be the fact that different MFIs required different documents for loan sanction and maintenance (Table 3). For instance, all the NBFCs collected only two joint photographs, address or identity proof from clients, whereas some NGO-MFIs collected only photographs from the clients. It was observed that in rural areas the cost of identity proof was higher as compared to

Figure 1: Proportion of each Activity in Total Transaction Cost of the Clients



urban areas. This was because villagers were required to obtain identity certificate from the village head, which cost between ₹10 to ₹50, whereas in urban areas, the clients usually had PAN card or other identity proof.

2. *The documentation cost* also varied with lending models followed by the MFIs (See Table 1 in Annexure). ASOMI Finance Private Limited and Prochesta delivered their loans to the SHGs. Under SHG model, the members had to submit their documents both to the bank and to the MFI. The documentation cost involved in this process were therefore higher than those of other models, viz. JLGs and bigger groups.
3. *The transportation cost* included the cost of traveling to the MFI and bank for availing loan. The transportation cost mainly depended upon the distance of the MFI from the clients' residence. Significant positive correlation (0.605) was observed between the distance of the MFI and the cost of transportation (annexure Table 4). The cost also depended on the number of members in the group.
4. *Incidental cost,* it was observed that in case of SHGs incidental costs did not exceed ₹10/-.

Table 7: Correlation Table

		Age of the borrower	Educational qualification of the borrower	Monthly income of the household	Transaction cost
Age of the borrower	Pearson Correlation	1	-.032	.275(**)	.171(**)
	Sig. (2-tailed)	.	.468	.000	.000
	N	503	503	503	503
Educational qualification of the borrower	Pearson Correlation	-.032	1	.288(**)	.216(**)
	Sig. (2-tailed)	.468	.	.000	.000
	N	503	503	503	503
Monthly income of the household	Pearson Correlation	.275(**)	.288(**)	1	.299(**)
	Sig. (2-tailed)	.000	.000	.	.000
	N	503	503	503	503
Transaction cost	Pearson Correlation	.171(**)	.216(**)	.299(**)	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	503	503	503	503

Note: ** Correlation is significant at the 0.01 level (2-tailed).

The proportion of initial cost, cost of documents, transportation cost and incidental cost in total transaction cost of the client is reported in Figure 1. A significant portion of transaction cost was in documentation (59%) and transportation cost (22%).

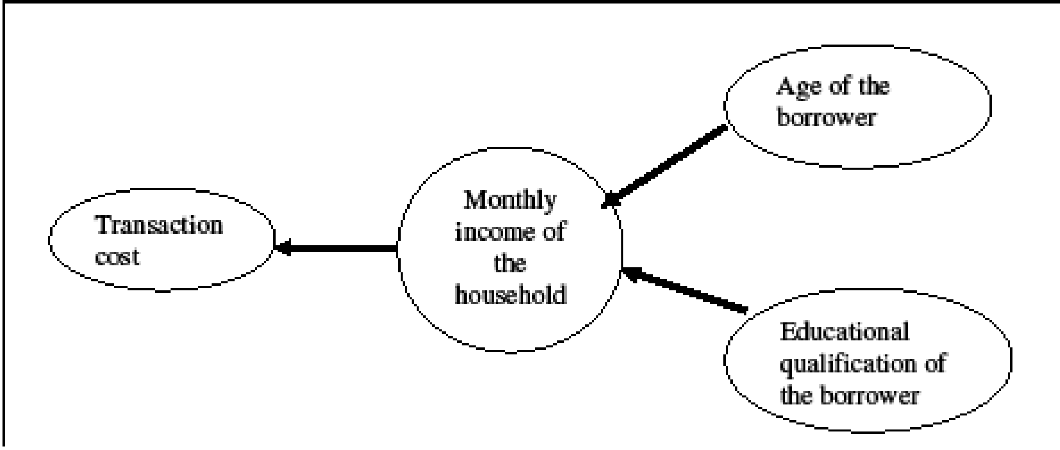
Table 7 indicates the correlation between the ages and educational qualification of the borrower, monthly income of the household, with the transaction cost incurred by the borrower in availing loan. It was observed that the variables were positively correlated with transaction cost, although the relationships were not very strong.

An interesting observation from the Table 7 is that, age and educational qualification of the borrowers were positively correlated with the monthly household income of the borrowers. This suggested that higher education led to higher income. Also, with the increase in age the borrowers could raise their income level. This may be due to the fact that with maturity people gained experience. Moreover, monthly income seemed to have significant positive correlation with transaction cost. These observations are summarised in the form of the graphical model at Figure 2.

Financial Cost: Financial costs were unavoidable and the client had to bear the costs to avail the loan. For instance, the client had to pay processing fees, service tax and insurance in order to avail loan. The interest cost was spread over the full tenure of the loan. Table 7 reports the mean and standard deviation values for each category of financial cost. Following are the main observations on financial cost.

1. All the MFIs collected processing fees and service tax as per RBI guidelines (see RBI, 2013). While ASOMI Finance Private Limited and MZGPS

Figure 2: Relationship between the age and educational qualification of the borrower, monthly household income of the borrowers and transaction cost



did not impose any insurance cost, other MFIs charged a fixed insurance premium from clients based on their loan slab. While insurance premium was an extra burden on the poor borrowers, it provided security against unforeseen events to both the MFI and the borrower.

2. The MFIs were charging interest rate on a reducing balance. The interest rate ranged from 18% to 26%. It was observed that in the given data the average loan size was ₹13,373.93 and the resultant mean financial cost equalled ₹2,681.4. Hence, the average financial cost was 20.1% of the average loan amount. According to RBI guidelines the cap on interest rate on loan amount is 26% (excluding processing fees and service tax). It would therefore appear that MFIs operating in Assam were providing loans at an expense well within the RBI regulations.

In Table 8, the total cost incurred (financial cost plus transaction cost) by the borrower based on the mean loan size is reported. The descriptive statistics (mean and standard deviation) for the loan amount, financial cost, transaction cost and total borrowing cost is calculated. It is observed that the average loan amount was ₹13,373.9 and the total borrowing cost ₹2,767.1. Hence the average total borrowing cost was 20.7% of the average loan amount.

Table 8: Total Borrowing Cost for Individual Borrowers

	Mean (in ₹)	Std. Deviation
A. Loan amount	13,373.9	5,826.2
B. Processing fees	127.6	64.9
C. Service tax	14.5	9.0
D. Insurance	71.4	68.2
E. Interest paid	2,467.9	1,482.2
F. Total financial cost (B+C+D+E)	2,681.4	1,548.3
G. Transaction cost	85.6	35.1
H. Total borrowing cost (F+G)	2,767.1	1,583.3

The next section highlights the MFI wise total cost of borrowing against two loan sizes i.e., ₹10,000 and ₹15,000, which were common among all the MFIs. Table 9 we presents the various charges, transaction cost and borrowing cost for these two loan sizes. All the MFIs (except MZGPS) were charging 1% processing fees and service tax at 12.4% of processing fees. In case of MZGPS the service tax and processing fees were included in the interest rate charged. The insurance charges varied from ₹47 to ₹78, as it depended on the insurance company the MFI was associated with. It was observed that for a loan size of ₹10,000 the total borrowing cost varied from ₹1394 to ₹2760. The transaction cost for all the MFIs varied from ₹40 to ₹60. Huge variation in total financial cost of the borrowers was observed. This was due to different interest rates and insurance charges imposed by the MFIs on the borrowers. For instance, the total borrowing cost of Prochesta, an NGO-MFI was less than that of other MFIs. The borrowing cost was highest for RGVN (North East) Microfinance Private limited which charged 26% interest on loan amount. In contrast, Prochesta charged interest rate at 22% only.

Table 9: Total Cost of Borrowing for Loan Size of ₹10,000 and ₹15,000

Loan size	Loan Features	Name of the MFI					
		Bandhan Financial Services Pvt. Ltd.	ASOMI Finance Pvt. Ltd.	RGVN (North East) Microfinance Pvt. Ltd.	Prochesta	MZGPS	Nightingale Finvest Pvt. Ltd.
	Processing fees (in ₹)	100.0	100.0	100.0	100.0	0.0	
	Service tax (in ₹)	12.4	12.4	12.4	12.4	0.0	
	Insurance (in ₹)	47.0	0.0	78.0	60.0	0.0	
	Installment amount (in ₹)	215.0	230.0	220.0	93.0	530.0	
	Repayment period (in weeks)	52	50	52	12*	24*	
	Total amount paid (in ₹)	11,215.0	11,350.0	11,359.0	11,160.0	12,720.0	Not
	Interest paid (in ₹)	1,215.0	1,350.0	1,359.0	1,160.0	2,720.0	available
	Total financial cost (in ₹)	1,374.4	1,462.4	1,549.4	1,332.4	2,720.0	
	Transaction cost (in ₹)	54.0	40.0	60.0	62.0	40.0	
	Total Borrowing cost (in ₹)	1,428.4	1,502.4	1,609.4	1,394.4	2,760.0	
	Processing fees (in ₹)	150.0	150.0	150.0			150.0
	Service tax (in ₹)	18.5	18.5	18.5			0
	Insurance (in ₹)	70.0	0.0	114.0			250
	Installment amount (in ₹)	325.0	345.0	350.0			1,009
₹ 15000	Total amount paid (in ₹)	16806.0	17025.0	17053.0			18,159
	Interest paid (in ₹)	1,806.0	2,025.0	2,053.0	Not	Not	3,159
	Total financial cost (in ₹)	2,044.5	2193.5	2335.5	available	available	3,559
	Transaction cost (in ₹)	86.0	79.0	142.0			35
	Total Borrowing cost (in ₹)	2,130.5	2272.5	2477.5			3,594

Note: For UNACCO Financial Services Private Limited data for loan amount ₹ 10000 and ₹150000 is not available.
* Monthly repayment schedule

Findings

1. Transaction Cost in Subsequent Loan Cycles

In general, the transaction cost for the borrowers in the subsequent loan cycle is lower than the cost in the first loan cycle (Shankar, 2007). This is because some of the costs, especially initial costs (includes cost of register, stamp pad, stationary, and sitting mat), are one time costs and non-recurring in nature. Hence, in subsequent loan cycles the mean transaction cost for borrowers in Assam is reduced by 17.8% in comparison to the cost of availing loan in first cycle (see Table 10).

Table 10: Transaction Cost for Borrowers in Subsequent Year (for individual respondents)

	Mean (in Rs)
A. Initial cost	15.2
B. Cost of documentation	50.8
C. Transportation and incidental cost	19.6
D. Total Transaction cost for first loan cycle	85.6
E. Transaction cost in subsequent cycle (Total Transaction cost -Initial cost)	70.4

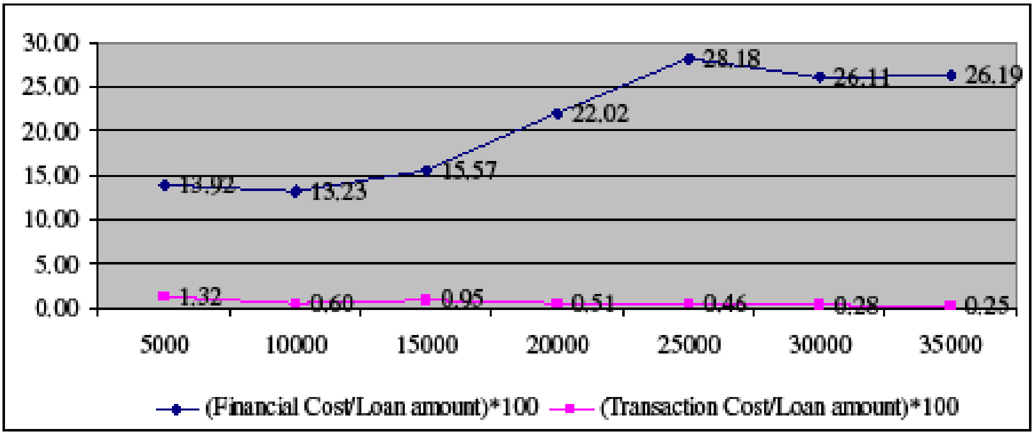
2. Relation of transaction cost and financial cost with loan amount

The total borrowing cost for various loan slabs were also calculated. It was observed that the total borrowing cost increased with the increase in loan amount. The total borrowing cost was further divided into financial cost and transaction cost. The financial cost varied between 14 to 27% of the loan amount.

Moreover, the cost was low compared to the cost incurred in direct lending from banks (Swamy and Tulasimala, 2012). They also reported that the transaction cost incurred under direct lending from banks was 9.2% of the loan amount (₹10,000), whereas this study indicated that the transaction cost for ₹10,000 was only 0.6% of the loan amount. Figure 2 represents the trend of the ratio of financial cost to loan amount and ratio of transaction cost to loan amount. The financial cost increased with the increase in loan amount. However, the transaction cost tended to decline with the increase in the amount of credit; for amounts greater than ₹10,000 they represented less than 1% of the credit amount. Thus credit was more expensive for small amounts of loan (Rojas and Rojas, 1997). Thus, for credit of ₹5,000 the proportion of transaction cost was 1.32% of the loan amount, whereas for credit of ₹20,000, the transaction cost was only 0.50% of the loan amount. This went down further to less than one percent for credit of ₹5,000.

From the present study it was observed that the total transaction cost for was much lower, varying from ₹54 to ₹142, than that indicated in earlier studies such

Figure 3: Relation of Transaction Cost and Financial Cost of in Respect to Loan Amount



as Karduck and Seibel, (2004) or Swamy and Tulasimala, (2011), who reported transaction cost between ₹169 to ₹870. Transportation cost also reduced to a large extent as members visited the branch only at the time of loan disbursement. It was found that RGVN (NE) disbursed loan cheques at the client's doorstep, which reduced the cost of transportation and also gave flexibility to members to encash the cheque at their own convenience.

For clients in Assam, opportunity cost appeared to be negligible. This seemed to be a unique feature of MFIs in Assam, as the opportunity cost was usually considered an important component of the cost structure. For instance, Swamy and Tulasimala (2011) reported opportunity cost of ₹60 per day for clients and Hossieni et al. (2012) reported that clients incurred 30% of the total cost as opportunity cost. However, in this study it was found that MFIs arranged the meeting schedules in such a way that members incurred minimum or no loss of income in attending meetings.

Conclusion

The empirical results highlight the importance of transaction cost and financial cost in the total borrowing cost of the borrower. The total borrowing cost for various loan slabs was also calculated. It was observed that the total borrowing cost decreased with the increase in loan amount. The proportion of total borrowing cost varied between 14 to 27% of the loan amount. Moreover, the cost was lower than the cost incurred in direct lending from banks (Swamy and Tulasimala, 2012). The total cost was divided into financial cost and transaction cost. Financial cost was imposed by the MFIs and was similar for all borrowers availing loan from the MFI, whereas transaction cost varied with age, educational qualification and monthly income of the borrower. It was observed that the age and educational qualification of the borrowers were positively correlated with the monthly household income of the borrowers. Moreover, monthly income seemed to have significant positive correlation with transaction cost. Transaction cost accounted for only three percent of the total borrowing cost. Transportation cost and documentation cost had stronger influence on the transaction cost of the borrower. These two items comprised 81% of the total transaction cost incurred in availing credit from the MFIs. This indicated that MFIs in future may concentrate on these two components of transaction cost to reduce the cost of credit for borrowers. It was observed that the average transaction cost varied significantly across different lending models and also with loan size. The analysis results imply that there was an inverse relationship between the cost of credit and amount of credit (Hosseini, et al. (2012) and Rojas and Rojas (1997). The study also showed that some MFIs imposed higher documentation cost than others. From a transportation cost perspective, MFIs within a distance of two km from the borrower's place were more cost effective for the borrower. Hence, the distance from the borrower's household to the lending institution exerted a positive significant effect on the transaction cost. This in turn emphasizes the importance of expansion of MFI branches and extension activities in lowering the transaction cost for borrowers.

In contrast to other studies, this study showed no significant influence of the opportunity cost on the total borrowing cost. Another important observation was that all the MFIs disclosed and communicated their interest rate, processing fees, service tax and insurance fees to the borrowers. The interest rate did vary with the size of the loan. This ensured long term survival, growth, and effectiveness of MFIs operating in the state. A positive relationship between the interest rate and the total financial cost for the borrower was also observed. It was found that the insurance products offered by the MFIs provided a cushion to the MFIs in case of death of the borrower or the guardian. There was a need to modify the products according to the requirement of the borrowers.

NOTES

1. The activities incurring cost are identified and then cost is allocated to different activities. This helps in delineating the activities in which clients incur more cost compared to other activities.

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Annexure 1

Table1: Transaction Cost for the Individual Borrower According to Lending Model in First Loan Cycle.

Parameters	JLGs	SHGs	Bigger Groups
Initial cost (in ₹)	16	24	5
Cost of documentation (in ₹)	65	79	60
Transportation cost (in ₹)	60	30	30
Incidental cost (in ₹)	1	1	0
Total (in ₹)	142	134	95

Note: In all the cases maximum cost was taken for consideration

An Assessment of Impact of Crop Loan Delivery on Credit Cooperatives

- Biswa Swarup Misra* and Ramakrishna Regulagedda**

Agricultural finance is an important activity for credit cooperatives as compared to commercial banks. Agriculture finance constitutes a large portion of the loan portfolio of credit cooperatives. Government of India has made provision for interest subvention through NABARD. Besides this, credit cooperatives get support in the form of concessional refinance from NABARD for their lending business.

Abstract

The present study attempts to decipher the actual cost of purveying crop loan to the farmer and contrast it with the assumed or presumed cost of such financing. The difference between the actual and the assumed cost of financing crop loans provides an estimate of the burden (if any) involved in such financing. For each state, cost of funds deployed by SCBs and CCBs was computed using balance sheet and income and expenditure statements. The information on risk cost and establishment cost for sample PACS for each state was also computed from their balance sheet and income and expenditure statements. The actual cost of financing crop loan through the credit cooperatives was computed in a sequential manner. First, the effective cost of funds at the CCB level which captures cost of funds/refinance, cost of funds provided by SCB and CCBs availed from NABARD. Second, the establishment and risk cost at the PACS level was added to the effective cost of funds at the CCB level to get the actual cost of disbursing crop loans. We consider five states - one from the Eastern (Orissa) and two states each from Western (Gujarat and Maharashtra), Southern (Andhra Pradesh and Tamil Nadu) regions to make the estimate of burden representative. The broad finding of the study is that the average burden of regulated crop loan is 2.83% for the five states during the study period.

Introduction

Agricultural credit in India is disbursed through a multi-agency network consisting of Commercial Banks

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Key Words: Crop Loan, Agricultural Credit, Scheduled Commercial Banks

(CBs), Regional Rural Banks (RRBs) and Cooperatives. Notwithstanding the involvement of commercial banks, the importance of credit cooperatives in meeting the crop loan requirement of farmers can be seen from their vast retail network, proximity to the farmers and the share of agricultural credit in their loan portfolio. The credit cooperatives has a vast network comprising 93,413 village-level Primary Agricultural Credit Societies (PACS), 371 District Central Cooperative Banks (DCCBs) with 13327 branches and 31 State Cooperative Banks (SCBs) with 953 branches providing primarily short and medium-term agricultural credit in India. This can be contrasted with the total branch network of 11719 of RRBs and 20810 rural (38859 if we include 18049 semi-urban) branches of Scheduled Commercial Banks (SchCBs) as on March 2011. Further, if one looks at the composition of loan portfolio of commercial banks vis-à-vis cooperatives, we find that agricultural finance is an important activity for credit cooperatives as compared to commercial banks. Agricultural loans account for 51% of the total loan outstanding at the PACS level, 41% at the CCB level and 48% for SCBs in 2010-11. This is in sharp contrast to SchCBs for whom agricultural and allied activities account for only 12.5% of the total non-food credit in 2011.

As agriculture finance constitutes a large portion of the loan portfolio of credit cooperatives, the pricing such finance will have important bearings on the financial health of the credit cooperatives in the long run. In the Union Budget for the year 2006-07, Government of India directed banks and credit cooperatives to dispense crop loans at a regulated rate of 7% to protect the interest of farmers effective from Kharif 2006-07.

To protect the interest of financial institutions involved in such regulated financing, Government of India has made provision for interest subvention. The interest subvention is affected through NABARD. Crop loans up to a principal amount of Rs 3.00 lakh were eligible for interest subvention from the Government of India, provided the respective banks finance the farmers at 7% rate of interest. The question is whether the subvention is sufficient to take care of the costs of delivery of small loans to the farmers from the credit cooperative system.

Besides the interest subventions, credit cooperatives get support in the form of concessional refinance from NABARD for their lending business. As per the NABARD guidelines, if a SCB avails refinance from NABARD, it has to dispense the credit lent from its own resources also at the regulated rate of lending. As far as Institutional interest is concerned, the cost saving from the refinance availed from NABARD has to be weighed against the loss of potential revenue from extending credit at regulated rate from own resources.

As agricultural crop loan accounts for only a small portion of the loan portfolio for commercial banks (less than 5%) leaving a scope for cross-subsidisation on the one hand and low cost deposits forming a sizeable proportion of their resources on the other, it is possible for them to absorb the costs associated with extending crop loans at the regulated rate. Unlike commercial banks, agricultural loans account for the bulk of the loan portfolio of credit cooperatives. Moreover, the cooperatives lack own resources and are heavily dependent on borrowings. Borrowings accounted for 51% of the total resources at the PACS level, 17% at the CCB level and 26% for SCBs in 2010-11. This is in sharp contrast to share of borrowings at only 8% of their total resources for SCBs (capital, reserves, deposits and borrowings). Hence, it is matter of enquiry how the regulated interest rate on crop loans is affecting the financial health of the different tiers in the cooperative structure.

In light of the above discussion, the primary objective of the research study is to enquire how the regulated interest rates on crop loans are affecting the financial health of the cooperative credit system. As some state governments provide interest compensation in addition to interest subvention being provided by the central government to extend credit to farmers at the regulated rate of 7%, the research issue further boils down to assess whether the subvention and the loss compensation provided is sufficient to protect the financial interest of the credit cooperatives. The adequacy of the support can be assessed by computing the actual cost of funds for the three tier system. As the credit cooperatives are organized as a three tier structure with interdependence across the tiers, it would be interesting to look into the cost at different levels of the three tier structure. Another related objective is to identify frictions in the smooth operation of the regulated crop lending scheme and suggest remedial measures.

The rest of the paper is structured as follows. Section-2 discusses the methodology for computing the actual cost involved in disbursing agricultural credit at the regulated rate and also the perceived cost by considering the various support mechanism available to credit cooperatives. This section also discusses the scope of study and design of data collection. The findings with regard to the actual versus perceived cost is for the different states as well for all the states taken together is discussed in section-3. Section-4 points out the main findings from the consultation with the stakeholders so that the regulated lending of crop loans through credit cooperatives is sustainable and more effective. Finally, Section-5 presents some concluding observations.

Section - 2

Methodology

In order to assess the impact of regulated rate of lending on the financial health of the credit cooperatives, we have compared the cost of funds and the assumed cost to disburse crop loan at the regulated rate. In addition to the sub-vention provided by the Government of India on own funds, the state governments provide interest compensation for different tiers of credit cooperatives. The state governments provide interest compensation in recognition of the fact that purveying small amounts of credit to farmers is a costly affair and the credit cooperatives need some support for lending to agriculture at the regulated rate.

The assumed cost of funds is computed by considering three aspects - the regulated rate, subvention provided by the central government and interest compensation extended by the state government to credit cooperatives.

The computation of the different components of assumed cost of funds is done as mentioned below:

Assumed Cost of Funds = Regulated lending rate + Central Government subvention on own resources deployed by the Cooperatives + loss compensation by State Government

Where,

Regulated lending rate =7% as announced by the Government of India.

Central Government Subvention = specific rate of subvention on the own resources. Own resources mean the Ground level credit excluding funds provided by NABARD for crop loan as refinance. Year wise rate of interest subvention made available to the credit cooperative banks on their own funds was at the rate of 2% in 2006-07, 2007-08, 2009-10 and 2011-12. For 2008-09, the applicable rate of subvention was 3% and 1.5% in 2010-11.

Interest compensation by State governments=This is a compensation provided by the state government to the credit cooperatives and varies across states and over the years.

The actual cost of funds for the SCB and CCBs consists of four components viz, deposit cost, risk cost, establishment cost and liquidity cost. The different components of the cost of funds is computed as follows:

Actual Cost of Funds = Cost of Deposit + Risk Cost + Establishment Cost + Liquidity Cost

Where,

Cost of Deposit= Interest paid on deposits*100/total deposits outstanding

Risk Cost = (Provision for standard assets + provision for different categories of NPA+ overdue interest on loans+provision for investment as the case may be)*100/working fund

Establishment Cost = Cost of Management*100/Working Fund

Liquidity Cost = cash & bank balance*return on investment/working fund

The burden (if any) is obtained by subtracting the actual cost of funds from the assumed cost of funds.

Burden = Actual cost of funds-Assumed cost of funds

It may be noted that the burden computed as per above methodology provides a breakeven level of analysis.

Scope of Study and Design of Data Collection

Period of study: The study period for assessment of burden is 2006-07 till 2011-12. The starting year 2006-07 corresponds to the year in which the regulated lending scheme was introduced. The motivation for choosing 2011-12 as the terminal year for the study is guided by availability of data on relevant parameters.

Choice of States: In order to make the study representative, five states were chosen from the Eastern (Orissa), Western (Gujarat and Maharashtra), Southern (Andhra Pradesh and Tamil Nadu) regions. All the selected states received both central government's interest subvention and interest compensation from the respective state government.

Design of Data Collection: For each state under study, SCB level information was obtained from their balance sheet and profit and loss statement. To know the cost of funds at the CCB level, it was decided to choose 4 CCBs from (one each from the northern, southern, eastern and western part) each State.

PACS do not use their own funds for dispensing of crop loans, but provide the last mile outreach to the farmer. The crop loans issued to the farmer, however, figure in the books of the PACS. PACS are exposed to risk cost in crop loans and also have their establishment cost. To get an estimate about the establishment cost at the PACS level, we have chosen 10 PACS from each of the 4 CCBs. Thus the assessment about the establishment and risk cost for each year in a state is based on 40 observations. Therefore the study is based on data from 5 State Cooperative Banks, 20 DCCBs and 200 PACS for the last six years.

It may be worthwhile to point out that information from all the requested CCBs and PACS could not be obtained. The state wise list of PACS and CCBs from whom data could be obtained is provided in Annexure-1.

The risk cost for PACS and CCB have been proxied by applying risk provisioning at 10% and 5% respectively to the 'Percentage of overdue to demand for agricultural loan' for all the states under study. The percentage of overdue to demand for agricultural loan was taken from NAFSCOB. The risk provisioning norms were chosen by consulting NABARD guidelines in this context and consultation with stakeholders. The establishment expenses for CCBs were also taken from NAFSCOB.

The establishment cost for the PACS and CCBs are based on the information supplied by them with the exception of Orissa and Tamil Nadu. For these two states, we could obtain information on establishment cost for all the PACS for the year 2010-11. For Orissa and Tamil Nadu, establishment cost for PACS is taken at 2.5% and 2.7% respectively for all the years as it is based on the establishment cost for all the PACS(2565 for Orissa and 4534 for Tamil Nadu) for the year 2010-11. There were two reasons for using the same establishment cost for all the years. First, it is based on the population rather than sample PACS and as such more representative. Second, discussion with the stakeholders in Orissa and Tamil Nadu brought out that these approximations for establishment cost across the years are quite reasonable.

In addition to obtaining financial statements from the PACS, CCBs and SCB to assess the cost structure, stake holders meetings were organized by NABARD through its regional offices in Hyderabad, Chennai, Pune and Ahmadabad. The meetings held in NABARD regional offices were attended by representatives from concerned SCB, select CCBs, select PACS, Cooperation Department and NABARD Officials. In addition, another meeting was scheduled in RCS Office in Pune which was attended by representatives from concerned SCB, select CCB and PACS, Cooperation Department and NABARD Officials. Issues related to crop loan disbursement were discussed and suggestions were made by participants for enhancing the effectiveness of the crop loan system.

Section - 3

Aggregate Picture - Cost Structure and Burden

The aggregate picture provides the average cost structure of cooperatives in five states, average cost of NABRAD refinance and the average share of different agencies in the GLC (Table 1).

In the five states, on an average in the six years under study, NABARD refinance contributed 16%, SCBs contributed 25% and CCBs 59% to the effective cost of funds at the CCBs level.

The cost of NABARD refinance has progressively increased over the study period from 0.7% in 2006-07 to 1.9% in 2011-12. Except the years 2009-10 and 2010-11, share of NABARD refinance as proportion of GLC increased progressively over the study period. The fall in the share of NABARD refinance in 2009-10 is mostly due to Maharashtra and Tamil Nadu.

SCB's share in GLC which used to be between 27% and 30% during 2007-09 declined to between 14 and 17% during 2010-12. In keeping with their declining share, the cost of funds at the SCB level declined from 2.1% in 2007-08 to 1.4% in 2011-12. This is notwithstanding the fact that cost of SCB funds remained firm during the study period and was much higher in the terminal year of the study at 9.7% than the initial year of 7.8%.

The CCBs involvement as a share of GLC declined from 45% to 38% between 2006-07 and 2008-09. It increased to 52% in 2009-10 and again declined successively to around 44% in 2011-12. The cost of CCB funds have varied between 10.2% to 11.4% in the six years under study. The cost of funds at the CCB level varied between 4.1% to 5.5% in these six years broadly reflecting their share in GLC.

The cost at the PACS level comprising the establishment and risk cost averaged 5.9% during the study period. While risk cost averaged 3.6% during 2007-12, establishment cost accounted for 2.3%. The combined establishment and risk cost at the PACS level increased continuously from 5.4% in 2006-07 to 6.7% in 2008-09. However, in the subsequent years the combined cost fell continuously and was 4.7% in 2011-12. The decrease was primarily due to the successive fall in

Table 1: Cost Structure

Actual vs Assumed Cost of Funds (Five States)

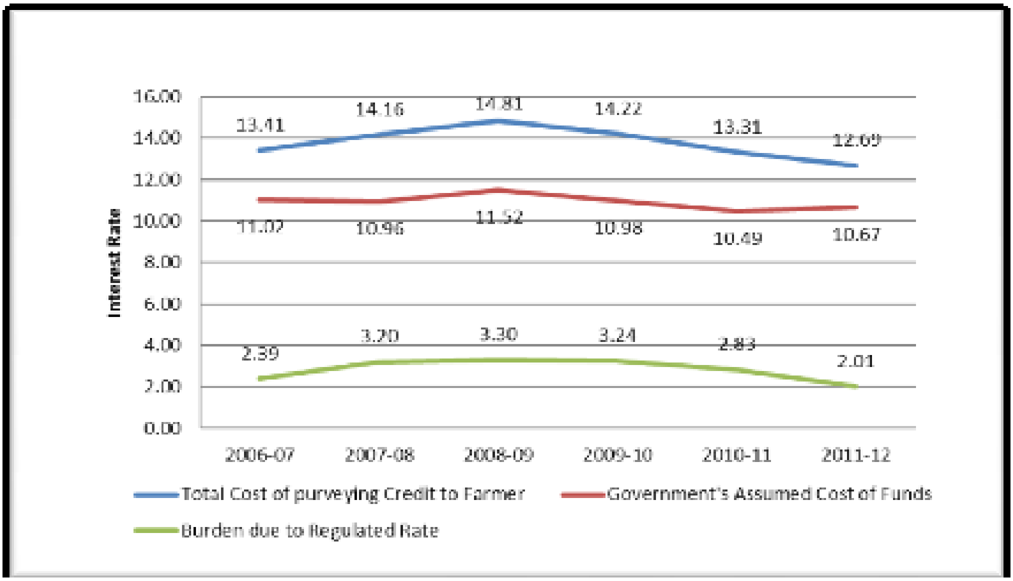
Variable		Unit	Formula	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Ground Level Credit (GLC)	1	cr		2807	2731	2227	4302	5250	6521
NABARD Refinance	2	cr		823	853	743	1196	1633	2564
NABARD Refinance as % of GLC	3	%		29.04	31.70	36.15	31.39	34.32	41.38
Rate of NABARD Refinance (%)	4	%		2.50	3.00	3.50	4.00	4.00	4.50
Cost of NABARD Refinance (%)	5	%	5=(3*4)/100	0.73	0.95	1.27	1.26	1.37	1.86
Involvement of SCB	6	cr		722	761	574	632	752	771
SCB Involvement as % of GLC	7	%		26.59	29.92	27.04	16.62	16.32	14.20
Cost of Funds of SCB	8	%	8=9+10+11+12	7.81	9.14	10.18	8.78	8.98	9.72
Deposit Cost	9	%		6.59	7.69	8.37	7.82	7.48	8.49
Establishment Cost	10	%		0.56	0.61	0.50	0.50	0.64	0.57
Risk Cost	11	%		0.39	0.53	1.09	0.31	0.59	0.35
Liquidity Cost	12	%		0.29	0.51	0.38	0.25	0.25	0.39
Cost of Funds Deployed by SCB	13	%	13=(7*8)/100	2.08	2.63	2.68	1.52	1.47	1.41
Total Effective Cost of Funds at the SCB Level	14	%	14=5+13	2.81	3.58	3.95	2.78	2.89	3.28
Involvement of CCB	15	cr		1262	1117	910	2474	2865	3185
CCB's Involvement as % of GLC	16	%		44.37	38.38	36.82	51.99	49.36	44.42
Cost of CCB Funds	17	%	17=18+19+20+21	10.96	10.72	11.36	10.57	10.23	10.69
Deposit Cost	18	%		6.45	6.49	7.14	6.96	6.79	7.24
Risk Cost	19	%		1.65	1.97	1.77	1.42	1.26	1.05
Establishment Cost	20	%		2.53	1.84	1.96	1.74	1.77	1.92
Liquidity Cost	21	%		0.33	0.42	0.49	0.45	0.42	0.50
Cost of Funds Deployed by CCBs	22	%	22=(16*17)/100	4.85	4.08	4.11	5.48	4.94	4.70
Effective Cost of Funds at the CCB Level	23	%	23=5+13+22	7.66	7.66	8.05	8.26	7.79	7.96
PACS Risk Cost	24	%		3.37	3.99	4.41	3.85	3.21	2.74
PACS Establishment Cost	25	%		2.37	2.51	2.35	2.11	2.32	1.98
Risk and Transcation Cost at PACS level	26	%	26=24+25	5.74	6.50	6.76	5.96	5.53	4.72
Total Cost of purveying Credit to Farmer	27	%	27=23+24+25	13.41	14.16	14.81	14.22	13.31	12.69
Government's Assumed Cost of Funds	28	%	28=7+29+31	11.02	10.96	11.52	10.98	10.49	10.67
Loss Compensation by State Government	29	%		2.60	2.60	2.60	2.60	2.50	2.50
Own Resources	30	%		70.96	68.30	63.85	68.61	65.68	58.62
Central Government Subvention (2% on Own Resources)	31	%		1.42	1.36	1.92	1.38	0.99	1.17
Burden due to Regulated Rate	32	%	31=27-28	2.39	3.20	3.30	3.24	2.83	2.01

Note: Numbers presented here are based on the information received from the states the risk cost from 4.4% in 2008-09 to 2.7% in 2011-12. Establishment cost varied within a range of 2.0%-2.5% during the study period.

Burden Due to Regulated Rate

The average burden computed using the methodology outlined in Section-3 works out to 2.8% for all the states and all the years under study (Figure 1).

Figure 1: Burden Due to Regulated Rate



For all the six years, Maharastra displays the maximum burden and Orissa, the minimum. The burden turns out to be the least for Orissa as the state government provides the maximum interest compensation of 4% compared to other states (see Table 2).

The evolution of the burden for individual states over the years is discussed in the subsequent section. However, before that we discuss the evolution of average burden and factors shaping them.

Table 2: Burden Due to Regulated Rate

Year	Tamil Nadu	Gujarat	Andhra Pradesh	Maharashtra	Orissa	Average for Five States
2006-07	4.19	2.76	1.96	3.50	-0.47	2.39
2007-08	3.42	3.85	1.54	6.00	1.16	3.19
2008-09	2.88	3.24	1.94	8.09	0.34	3.30
2009-10	1.92	3.32	3.35	7.21	0.43	3.25
2010-11	2.21	3.70	3.15	3.99	1.09	2.83
2011-12	1.68	2.37	2.22	2.90	0.90	2.01
Average During 2007-12	2.72	3.21	2.36	5.28	0.57	2.83
Average During 2010-12	1.94	3.13	2.91	4.70	0.81	2.70

The average burden for the cooperatives in the six states increased from slightly above 2% in 2006-07 to around 3% in 2007-08 and 2008-09. The burden declined in the subsequent three years and was observed at 1.7% in 2011-12. The decline is due to the fall in cost of funds deployed by SCB as its share in GLC declined and the cost of SCB funds was relatively cheaper in the last three years of the study. Though share of CCBs in the GLC increased in the last three years, the cost of CCB funds also witnessed a decline which helped to contain costs. The decline in the risk cost at the PACS level also helped to lower the cost of purveying credit to farmer in the last three years of the study. PACS level cost on an average accounted for 42% of the cost of credit for the cooperatives in the six years of study. However, compared to the 45% in the first three years, PACS level cost declined to 40% in the subsequent three years.

At the PACS level it is observed that salaries on an average accounted for roughly 65% of the establishment expenses for the six years and five states under study. Andhra Pradesh, Maharashtra and Tamil Nadu had similar shares of salary expenses in the establishment expenses at around 70%. In Orissa, salary expenses accounted for 60% of the establishment expenses at the PACS level. Gujarat had the lowest share of salary expenses as proportion of establishment expenses. The year wise variation in this ratio across the states can be seen from Table 3.

Table 3: Salary as Percentage of Establishment Expenses

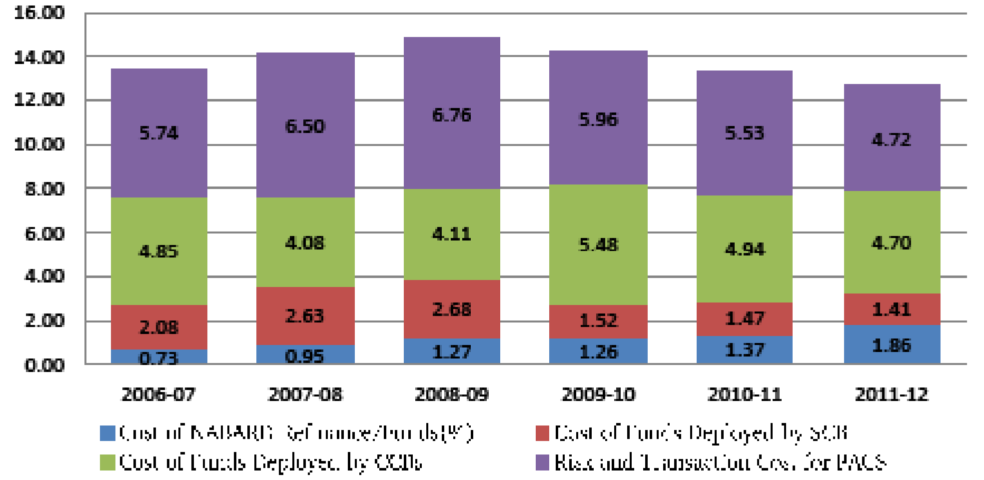
Year	Andhra Pradesh	Gujarat	Orissa	Maharashtra	Tamil Nadu	Average across States
2006-07	65.75	50.65	60.94	61.75	70.66	61.95
2007-08	66.12	51.09	57.62	68.23	73.36	63.28
2008-09	73.34	54.39	60.73	66.91	71.03	65.28
2009-10	74.04	55.76	66.11	69.55	70.74	67.24
2010-11	69.72	52.28	62.80	74.98	66.38	65.23
2011-12	78.44	51.08	54.65	87.05	69.14	68.07
Average across Years	71.24	52.54	60.48	71.41	70.22	65.18

State Level Scenario - Cost Structure and Burden

Andhra Pradesh

- In Andhra Pradesh, on an average in the six years under study, NABARD refinance contributed 17%, SCBs contributed 29% and CCBs 54% to the effective cost of funds at the CCBs level.
- The cost of NABARD refinance increased successively from 0.96% in 2006-07 to 1.78% in 2011-12. This was more due to increase in the rate of refinance as the proportion of NABARD refinance in the GLC were around similar levels in the terminal year compared to 2006-07.
- The cost of funds deployed by SCBs declined from 1.68% in 2006-07 to 0.94% in 2011-12. However, the decline has not been continuous across the years. It increased to 4.45% in 2007-08, declined sharply to 2.9% in 2008-09 and further to 1% in 2009-10. However, it again increased to 1.27% in

Figure 2: Cost Structure of Credit Coperatives



2010-11 before falling again in the terminal year. In the face of successive increase in the cost of SCB funds, it can be seen that the behaviour of the cost of funds deployed by SCBs mimics their involvement in the GLC which reached a high of 59% in 2007-08 and low of 10.81% in 2011-12. The increase in cost of SCB funds in the later years is explained primarily by the increase in cost of deposits.

- Like the SCBs, CCBs involvement in GLC also shows wide variation during 2006-07 and 2008-09. CCBs involvement came down to a meagerly 2.28% in 2007-08 from 38.39% in 2006-07 and again increasing to 24.14%. However, during 2009-10 and 2011-12 the level of CCB involvement increased to around 50%. The cost of CCB funds have varied between 10.86% and 12.78% in the six years under study. The cost of funds deployed by CCBs across the years also mimics their share in the GLC.
- The cost at the PACS level comprising the establishment and risk cost averaged 5.3% during the study period. While risk cost averaged 3.9% during 2007-12, establishment cost accounted for 1.4%. The combined establishment and risk cost at the PACS level declined continuously from 6.4% in 2007-08 to 4.06% in 2011-12. The decrease was primarily due to the successive fall in the risk cost from 4.94% in 2007-08 to 2.72% in 2011-12. Establishment cost varied within a range of 1.28%-1.77% during the study period.
- The burden increased sharply in 2009-10 and 2010-11 because of the deployment of CCB funds of a higher order and the relatively higher cost of CCB funds compared to that of SCB funds. In 2011-12, the burden

came down as the share of NABARD refinance which is relatively cheaper increased and the fall in the risk and establishment cost at the PACS level compared to the previous years.

Gujarat

- NABARD refinance contributed 12%, SCBs contributed 15% and CCBs 73% to the effective cost of funds at the CCBs level in Gujarat, on an average in the six years under study. NABARD refinance and SCBs contributed the least to the effective cost of funds at CCB level in Gujarat compared to other states.
- The cost NABARD refinance showed a fluctuating pattern increasing from 0.5% in 2006-07 to 1.7% in 2011-12. The variation in the cost of NABARD refinance mimicked the changing share of NABARD refinance in the GLC.
- As the share of SCBs in the GLC declined from 20.9% in 2006-07 to 8.8% in 2011-12, cost of funds deployed by SCBs also declined from 1.6% in 2006-07 to 0.9% in 2011-12 despite cost of SCB funds increasing from 7.9% in 2006-07 to 10% in 2011-12.
- The share of CCBs in GLC increased from 57.4% to 68.9% in 2010-11 and dropped to 54% in 2011-12. While the cost of CCB funds hovered around 10% till 2009-10, it declined to 8.4% in 2010-11 and was 8.9% in 2011-12. Because of the decline in its share in GLC as well as in the cost of CCB funds, the cost of funds deployed by CCBs declined sharply to 5.8% in 2010-11 and 4.8% in 2011-12 from around 6.5% during 2007-08 and 2009-10.
- As CCBs accounted for the largest share in GLC, the fluctuation in the effective cost of funds at the CCB level over the years displays the pattern broadly that of cost of funds deployed by CCBs.
- The cost at the PACS level comprising the establishment and risk cost averaged 5.73% during the study period. While risk cost averaged 3.35% during 2007-12, establishment cost accounted for 2.38%. Though the combined establishment and risk cost at the PACS level came down from 5.79% in 2007-08 to 5.27% in 2011-12, the decline has not been continuous. From 2009-10 onwards the establishment and risk cost have moved synchronously.
- Compared to the base year 2006-07, the burden remained at an elevated level for the next four years notwithstanding the year to year fluctuations. There has been a perceptible decline in the burden in the last year of study as share of NABARD refinance which is relatively cheaper witnessed a sharp increase and both risk cost and establishment cost declined significantly.

Maharashtra

- NABARD refinance contributed 13%, SCBs contributed 19% and CCBs 68% to the effective cost of funds at the CCBs level in Maharashtra, on an average during the study period.
- NABARD refinance as proportion of GLC has shown large swings during the study period. While the share increased from 28.18% in 2006-07 to 38.34% in 2008-09, it declined to 18.08% in 2009-10 and recovered in the subsequent two years to reach 34.45% in 2011-12. In keeping with the changing proportion of NABARD refinance in the GLC, the cost of NABARD refinance has also shown wide fluctuations over the years. However, as the share had increased as well as the cost of refinance, the cost to the three tier structure emanating from NABARD refinance increased from 0.70% in 2006-07 to 1.55% in 2011-12.
- Share of SCB involvement in GLC has declined continuously during 2006-07 and 2011-12. The share dropped from 26.2% in 2006-07 to 7.7% in 2011-12. The decline was gradual between 2006-07 and 2008-09 but quite sharp in the subsequent years. Cost of funds deployed by SCBs increased during 2006-07 and 2008-09 when cost of funds had increased significantly but the share in GLC remained stagnant around 25%. However, in the subsequent three years, cost of funds deployed by SCBs declined continuously as their share in GLC declined sharply. This is notwithstanding the fact that cost of SCB funds broadly increased in tune with the rising cost of deposits. Thus we find, the declining share in GLC has led to a fall in the cost of funds deployed by SCBs from 1.8% in 2006-07 to 0.7% in 2011-12.
- There has been a level jump in the cost of funds deployed by CCBs in the last three years of the study compared to the first three years. Though cost of funds increased in the first three years, the decline in their share in GLC led to a decline in cost of funds deployed by CCBs during this period. Though there has been some moderation in the cost of funds, the sharp jump in its share in the GLC, has led to increase cost of funds deployed by CCBs to 6.97% in 2009-10 from 4.3% in 2008-09. In the subsequent two years, the cost funds deployed by CCBs though moderated a bit but still high at 6.3% in 2011-12 mostly reflecting the fall in the share in GLC.
- The combined risk cost and establishment cost is the highest for Maharashtra amongst all states under study. The cost at the PACS level comprising the establishment and risk cost averaged 7.6% during the study period. While risk cost averaged 5.2% during 2007-12, establishment cost accounted for 2.4%. Though the combined establishment and risk cost at the PACS level came down from 6.72% in 2007-08 to 4.65% in 2011-12,

the decline has not been continuous. In fact, the combined cost increased in the first three years of the study to reach a peak of 11.09% in 2008-09, mostly reflecting the rise in risk cost. In the subsequent years, risk cost as well as establishment cost has declined.

- The burden shot up sharply in the three years following 2006-07. In these three years, the effective cost of funds at the CCB level increased significantly. Further, the establishment and risk cost were significantly higher in 2007-08 and 2008-09. In 2009-10, both the establishment and risk cost of the PACS declined. As the decline in risk cost was only moderate and effective cost of funds at the CCB level went up significantly, the burden came down moderately despite a sharp fall in risk cost in 2009-10. In the subsequent two years, the sharp decline in risk cost for PACS resulted in the burden coming down significantly.

Orissa

- In Orissa, on an average in the six years under study, NABARD refinance contributed 21%, SCBs contributed 32% and CCBs 46% to the effective cost of funds at the CCBs level. However, it is worth noting that contribution of NABARD refinance and cost of funds deployed by CCBs while have increased significantly, that of SCBs has declined from 49.5% in 2006-07 to 22.1% in 2011-12.
- Cost of NABARD refinance increased successively from 0.8% in 2006-07 to 2.1% in 2011-12 partly reflecting its increased share in GLC and partly the increasing rate of refinance. NABARD refinance as proportion of GLC increased from around 30% in 2006-07 to 45% in 2008-09 and has been maintained at that proportion in the subsequent three years.
- The share of SCB in GLC has declined sharply in the last three years of the study period. As such, despite an increase on cost of SCB funds, the cost of funds deployed by SCBs has declined in the last three years of the study period compared to the initial three years. Thus we find, cost of funds deployed by SCB has come down from 3.5% in 2006-07 to 1.6% in 2011-12.
- Though cost of funds for CCBs in the six years sunder study has remained within a narrow range of 9.4-10.5%, their increased share in the GLC in the last three years of the study period has led to an escalation of cost of funds deployed by CCBs in those years. For instance the average cost of funds deployed by CCBs increased from 2.98% in the first three years (2007-09) to 3.77% in the last three years (2010-12).
- The cost at the PACS level comprising the establishment and risk cost averaged 5.87% during the study period. While risk cost averaged 3.4%

during 2007-12, establishment cost accounted for 2.5%. Though the combined establishment and risk cost at the PACS level increased from 5.3% in 2007-08 to 5.8% in 2011-12, the increase has not been continuous.

- The burden increased sharply in 2007-08 to 1.2% compared to a negative 0.5% in 2006-07. This was due to increase in both the effective cost of funds at the CCB level and the risk cost at the PACS level. The burden was less than 0.5% in the subsequent two years but again shot up to 1.1% in 2010-11 and was found to be 0.9%. The higher level of burden in the last two years of the study is primarily due to reduction in interest compensation provided by the state government.

Tamil Nadu

- In Tamil Nadu, on an average in the six years under study, NABARD refinance contributed 17%, SCBs contributed 32% and CCBs 50% to the effective cost of funds at the CCBs level. However, it is worth noting that contribution of NABARD refinance and cost of funds deployed by SCBs while have increased significantly, that of CCBs has declined from 73.5% in 2006-07 to 34.7% in 2011-12. In no other state, the contribution of NABARD, SCB and CCB to the effective cost of funds at the CCB level has changed so significantly.
- Except the year 2009-10, the share of NABARD refinance has increased successively from 26.2% in 2006-07 to 50.0% in 2011-12. Increased share coupled with increase in the rate of refinance has led to an increase in the cost of NABARD refinance. The cost of NABARD refinance increased continuously from 0.7% in 2006-07 to 2.3% in 2011-12 except the year 2009-10 when its share in GLC dropped to 32.8% from 42.2% in the preceding year.
- Share of SCB in GLC hovered around 20% in the first three years of introduction of the regulated rate but increased subsequently to 34.2% in 2009-10 and then declining continuously in the succeeding two years to reach 27.3% in 2011-12.
- Though risk cost and liquidity cost declined, an increase in deposit cost and establishment cost in the subsequent years led to an increase in cost of SCB funds from 8.8% in 2006-07 to 10.5% in 2011-12. However, the increase has not been continuous.
- The combined impact of share in GLC and cost of funds led to an increase in the cost of funds deployed by SCBs from 1.8% in 2006-07 to 2.9% in 2011-12.
- The share of CCBs in GLC declined continuously form 53.4% in 2006-07 in the subsequent years. However, the decline was gradual during 2006-07

to 2008-09 and was quite sharp in the subsequent years to reach 22.7% in 2011-12. Though the cost of funds varied between 10.5% to 12.7% in the six years of study, the cost of funds deployed by CCBs fell continuously form 6.8% in 2006-07 to 2.8% in 2011-12 broadly mimicking its share in GLC.

- The cost at the PACS level comprising the establishment and risk cost averaged 4.8% during the study period. While risk cost averaged 2.1% during 2007-12, establishment cost accounted for 2.7%. Though the combined establishment and risk cost at the PACS level came down from 5.4% in 2007-08 to 3.8% in 2011-12, the decline has not been continuous. The combined cost at the PACS level mimicked the establishment cost in the first three years of the study and the risk cost in the later years of the study.
- The burden for Tamil Nadu shows a secular decline except for the year 2010-11. The burden declined in 2007-08 to 3.4% from 4.2% in 2006-07 despite increase in cost of NABARD refinance and cost of funds deployed by SCBs because of the sharp fall in the cost of funds deployed by CCBs. Though risk cost increased marginally for the PACS, decline in the cost of funds deployed by the CCBs dominated and increased support from government's subvention led to a significant reduction in burden to 2.88% in 2008-09. A sharp decline in the risk cost for PACS helped to further reduce the burden to 1.92% in 2009-10. Regulated lending rat esystemLesser support from government subvention and increase in risk cost for PACS eroded the benefits from a reduction in the effective cost at the CCB level and the burden increased to 0.87% in 2010-11. These very factors turned in favour of the cooperatives and the burden was 1.68% in 2011-12.

Section - 4

Issues Raised in Stakeholders Meeting: The stakeholder meetings brought out impediments in smooth implementation of the regulated lending rate system and the measures needed to overcome them. It also offered suggestions to make agricultural lending sustainable.

In Andhra Pradesh timely receipt of subvention claims was a major deterrent for the effective working of the interest subvention provided by the central government and loss compensation by the state government. There are long and inordinate delays in receiving the subvention claims which reduces the effectiveness of government support to credit cooperatives. The state government had announced 2.5% loss compensation for credit cooperatives since the introduction of regulated lending scheme. However, the state cooperative bank is yet to receive any loss compensation from the state government in the last six years. As the state has not received the loss compensation for all the years till date, the burden computed in the study is on a notional basis and the actual burden would be much more. It was pointed out by the representatives of credit cooperative that the margins for CCBs (0.85%) and PACS (1.5%) within the three tier structure are inadequate and adversely affect their financial health. Further, income of DCCBs should be exempted from income tax as it was before 2006-07. Some participants also pondered whether big farmers, who are borrowing more than Rs. 3 lakh in crop loans, should also be availing benefit from the regulated rate for their borrowings up to Rs. 3 lakh.

In Gujarat representatives from credit cooperatives stressed the need to increase the margin made available to the PACS within the three tier structure because operational expenses have increased. For instance, price of Stationeries has jumped 3 to 4 times in the last six years. Further, commission charges for handling fertilizer sales have not increased though loading/unloading charges have increased from Rs.1.50 to Rs.4.00 resulting in squeezing of margins available on fertiliser sales. This is not withstanding the fact that fertilizer prices have more than doubled. The salaries of PACS functionaries need to be increased keeping in pace with the overall increase in cost of living. At present, they are paid poorly and may not have the motivation to give their best in loan recovery. It may be noted that salaries as a percentage of establishment expenses was least for Gujarat amongst the five states under study. It was also pointed out that tax on income of the DCCBs should be exempted as it was before 2006-07 and the same can be passed on to the farmer. As the regulated rate on crop loans was meant to help the small and marginal farmers, participants expressed that farmer availing loans of more than Rs. 3 lakhs should not be subsidised as they are essentially big farmers.

The discussions in Maharashtra brought out the need to extend the period of loan for the purpose of consideration for interest subvention. Credit Cooperatives provide loan to farmers for long duration cash crops like sugarcane, ginger, turmeric, grapes etc apart from crop loans. The interest subvention from the Central Government is available for a maximum period of 365 days whereas the repayment period for long duration crops like sugarcane and banana is more than 18 months. For instance, loan for sugarcane cultivation require 15 to 18 months for repayment from sowing to crushing. Thus, by extending the duration of loan for the purpose of subvention would not only help the credit cooperatives but ultimately the farmer. The subsidy (for prompt payment) and the subvention have reduced the rate of interest on crop loans and has prompted farmers to avail such loans from the Banks. As a result share of investment credit in agricultural loans has come down to 30% in the state whereas the share of production loans has increased considerably. To achieve sustainable growth of

4% in agriculture investment credit needs to be encouraged. Thus, there is a need to rationalize the interest subvention across production and investment loans. The credit cooperative banks submit requirements of interest subvention to the government but it takes more than two years to realize the interest subvention amount. During the intervening period, banks are deprived of funds leading to loss of gainful opportunities and economical loss. Hence, the government should provide at least 40% of the interest subvention amounts in advance based on last year's claims. The consumption and maintenance components of the crop loan needs to be factored in properly so that the farmer is not unduly stressed and receive the full benefit of the support extended by the government through the credit cooperatives. The refinance rate of NABARD has increased in successive years. This should be lowered to reduce the burden on credit cooperatives.

In Orissa, it was shared in the stakeholders discussion that as interest subvention is calculated on the basis of audited financial statements of SCB and CCBs, submission of claims pertaining to a particular year is delayed by at least 9 months to one year and thereafter, provisions are made in the State Government Budget. As a result, the SCB and CCBs which are involving their costly funds are losing heavily on this account. It should be explored to release interest subvention amount as advance to the credit cooperatives. At present, the interest subvention by the central government or the loss compensation to the three tier structure by the state governments do not consider the risk cost of the PACS for determination of costs. There is urgent need to recognize risk costs at the PACS level for the financial viability of the system. At the SCB and CCB level own funds are deployed in dispensing crop loan. In the earlier attempts to determine costs at the SCB and CCB level, liquidity cost was not included. Participants pointed out that liquidity cost should also be included in recognition of the fact that funds raised involve cost and when it is not deployed, involves a cost for the deposit raising institution. Currently, the state government provides loss compensation by fixing a cap on risk and establishment cost of SCB and CCBs. There is a need to revisit the appropriateness of those caps.

In Tamil Nadu participants made a case for lowering the refinance rate from NABARD to lower the burden on credit cooperatives. Further, instead of computing the burden every year which involves time, resources and often delay, it may be a better idea to link the deposit rate of credit cooperatives with some benchmark policy rate and then provide for the difference as loss compensation. Shortfall of agriculture credit by commercial banks can be given to state cooperative bank at a concessional agreed rate rather than putting it into RIDF. This will help to expand the availability of credit to the farmer. Misclassifications of loans should be avoided to reflect the involvement of different institutions in agricultural credit correctly. Chennai is classified as having the highest agricultural loans. This is because of agri jewel loans-Loans with gold as collateral are classified as agricultural loans which may not be appropriate. In Tamil Nadu, the state government extends the subvention receivable from central government in advance to the credit cooperatives. When credit cooperatives receive the subvention from the central government they refund that amount to the state government. As the state government is committed to provide loans to farmers at zero percent, subvention amount when received from the central government need not be reimbursed to the state government but can be used for strengthening the lower tiers in the credit cooperative system.

Conclusion

The regulated rate on crop loans was introduced in the Union Budget 2006-07 to help farmers. Recognising the fact that financing crop loan may involve more cost than the regulated interest rate, central government provided interest subvention on own funds deployed by credit cooperatives, which varied between 1.5% and 3% in different years. The state governments on their part also extended interest concession to credit cooperatives for lending to farmers at the regulated rate. Given the relatively higher delinquency in crop loan and the poor resource base of credit cooperatives, the present study examined if the support extended by the central and state government is adequate to protect their financial health while lending at the regulated rate.

We computed the actual cost of dispensing crop loans through credit cooperatives for six years when the regulated scheme has been in operation for five states viz, Andhra Pradesh, Gujarat, Maharashtra, Orissa and Tamil Nadu. This was contrasted with the assumed cost of financing crop loan. The cost of dispensing crop loan through cooperatives considered the cost of NABRAD refinance, cost of funds at the level of the SCB and CCBs and also the establishment and risk cost at the PACS which provide last mile connectivity with the farmer. The cost at the CCB and PACS level was proxied through information collected from the balance sheet and profit and loss account of sample CCBs and PACS. The assumed cost of funds was computed by adding the interest subvention from central government, interest compensation from state government and the regulated rate of lending. The difference in the actual and assumed cost of crop loans provided an estimate of the burden involved in crop loan financing.

In the six years under study, the average burden across all the five states was 2.8%. The burden increased continuously from 2.4% in 2006-07 to 3.3% in 2008-09 and declined marginally to 3.3% in 2009-10. The last two years has seen a sharp decline in the burden to 2.8% in 2010-11 and 2% in 2011-12. The burden in different years was an outcome of the interplay of share of different tiers and NABARD in the GLC and the cost of funds for each institution coupled with costs at the PACS level. The average burden during the study period has been highest for Maharashtra (5.3%) followed by Gujarat (3.2%), Tamil Nadu (2.7%), Andhra Pradesh (2.4%) and Orissa (0.6%). The high burden for Maharashtra is on account of high risk and establishment cost for the PACS. In Orissa, the state government provided the maximum interest compensation amongst all states under study and as such the burden is the least.

It is observed that on an average PACS account for 42% of the actual cost of crop loan. Cost at the PACS level is a combination of establishment and risk cost only as PACS do not involve their own funds for crop loan financing. The establishment plus the risk cost for all the six years of study varied between 4.8% for Tamil Nadu and 7.6% for Maharashtra. Discussion with stakeholders brought out that the cost at the PACS level is not being correctly factored which leads to underestimation of costs and their poor financial health. Accumulation of losses at the PACS level beyond a certain point would necessitate government support in form of recapitalization or rehabilitation package. In case government does not take of the losses, the depositors with the cooperatives will stand to lose. In view of such possibilities, it would be prudent to compensate the burden amount to the cooperatives which realistically reflects the cost at different tiers in the three-tier system. In the interest of long term sustainable growth of the credit cooperatives, it would be useful to provide for some profit margin.

It is worth noting that the burden computed in the study is based on a break even analysis without any provision for profits from crop loan financing. Hence, if credit cooperatives are not to suffer a loss from their crop financing operations at the regulated rate, the burden needs to be compensated to the credit cooperatives. Both the central and state government should factor in the burden while designing various support schemes for credit cooperatives so that the interest of both the farmer and the institution can be served on a sustainable manner. Sustainable scaling up of crop loan through credit cooperatives would require factoring some reasonable return from crop loan business. This would necessitate compensation of a higher order for the credit cooperatives than what is suggested from the breakeven level analysis.

Discussion with stakeholders brought out issues that need to be addressed by policy makers so that regulated crop loan from cooperatives not only protects their financial health but also contributes to the overall development of agricultural sector. Delay in the receipt of sub-vention claims needs to be avoided through a formal mechanism where advance disbursal based on past year's claim is made so that the system does not lose out from the available support. Instead of calculating the burden every year which involves time, resources and often delay, it may be a better idea to link the deposit rate of credit cooperatives with some benchmark policy rate and then provide for the difference as loss compensation. The shortfall in agriculture credit by commercial banks can be made available to the credit cooperatives at a concessional rate rather than putting it into RIDF. This will help to expand the availability of credit to the farmer. It was also stressed that government can think of exempting the CCBs from paying income tax so that the money saved can be used to support the crop loan business at the regulated rate. In the interest of holistic development of agriculture, there is a need to extend the regulated rate to loans for investment purpose and also for cash crops which have a repayment cycle exceeding one year.

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Quality and Sustainability of Self-Help Groups in Bihar and Odisha – A Comparative Analysis

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The SHG Bank Linkage Program (SBLP) is the most effective poverty alleviation and women's empowerment programs. SHGs emerged as a mass movement across the country and largest community based microfinance model in the world.

Abstract

A comparative study of SHG-Bank Linkage Programme in Bihar and Odisha shows that the number of SHGs savings linked to banks are almost double in Odisha when compared to Bihar. The Government and NGOs are the major SHPIs in both the States. With regard to access to bank linkage and impact, the SHGs in Odisha seem to have fared better as compared to Bihar SHGs. The most urgent need is to focus on consolidating the efforts to improve the quality of the SHGs and strengthening the SHG federation system in line with the NRLM implementation strategy.

Context of the Study

India's Self-Help Group (SHG) movement has emerged as the world's largest and most successful network of Community Based Organizations (CBOs). It is predominantly a women's movement. As some experts have pointed out, it is a development innovation in its own right. The SHG Bank Linkage Program (SBLP), which is India's own innovation, has proved to be one of the most effective poverty alleviation and women's empowerment programs. The SBLP had a modest beginning with 255 credit linked groups and a loan amount of Rs. 29 lakh in 1992-93. Since then, the program has grown exponentially. In the process, SHGs emerged as a mass movement across the country and largest community based microfinance model in the world. As per NABARD's microfinance report, as on March 2013, about 73 lakh SHGs have savings

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accounts in banks, with an aggregate bank balance of Rs. 6,551 crore. Over 44.54 lakh SHGs have loan accounts with total loan outstanding of Rs. 39,37,530 lakh. However, there remain regional disparities in the growth of the SHG movement, with limited progress in eastern and western regions. The NABARD has identified 13 states as Priority States including Bihar and Odisha. In this regard, NABARD has decided to conduct a study in Bihar and Odisha on quality and sustainability of SHGs to enable the stakeholders, particularly the State Governments and the Banks, to focus on those areas that require improvement and for policy advocacy to evolve the SHG movement in India as a sustainable system.

Objectives & Methodology

In the above context, the APMAS has conducted a study with a specific objective to assess the quality of SHGs in Bihar and Odisha. The study has covered 288 SHGs from 96 villages in 24 blocks of 8 districts in Bihar and Odisha (Gaya, Jamui, Muzaffarpur and Purnia in Bihar; Cuttack, Ganjam, Koraput and Sambalpur in Odisha). In addition to the SHGs, 8 federations, 10 Self-Help Promoting Institutions (SHPIs) were studied. Besides, 24 interviews with the bank officials and 20 interviews with block level officials were conducted.

Data Collection Tools: Data was gathered from both primary and secondary sources. The primary sources include SHGs, Federations, Banks, SHPIs and Staff. Secondary sources include project reports, annual reports, websites, and Census of India, etc. Both qualitative and quantitative data collection tools were administered to obtain information from SHGs, federations, SHPIs and bank branch mangers. Besides, NABARD's Critical Rating Index (CRI) was used to assess the quality of SHGs objectively. Fieldwork for data collection was carried out during November – December, 2013.

Data Analysis & Findings of the Study

The data collected from primary and secondary sources were entered and the soft copies reviewed and edited and secondary variables generated as per the requirement to do an in-depth analysis. Simple statistical tools like percentages and averages were computed by using a Statistical Package for Social Sciences (SPSS). The findings of the study presented as: SHG bank linkage programme in Bihar and Odisha, Composition of SHGs and Performance of SHGs, and Conclusions.

Findings of the Study

SHG-Bank Linkage Programme in Bihar and Odisha

Table 1 shows that the number of SHGs savings linked to banks are almost double in Odisha when compared to Bihar; similarly, the amount of savings

Table 1: SHG-Bank Linkage in Bihar and Odisha

S. No.	State/ Country	Savings		Loan Outstanding		NPA as %age to Loan O/s
		No. of SHGs	Amount (Rs in Lakh)	No. of SHGs	Amount (Rs in Lakh)	
1	Bihar	2,70,890	16,968	1,85,309	93,231	6.11
2	Odisha	5,22,837	41,828	2,77,954	1,79,676	18.27
3	India	73,17,551	8,21,725	44,51,434	39,37,530	7.08

Note: NPA refers to non-performing assets

Source: NABARD, Status of Microfinance in India, 2012-13

in SHG Savings Bank (SB) accounts is more than double. Further, the average amount of savings per SHG is high in Odisha with Rs. 8,000 when compared to Bihar (Rs.6,264), and it is low in both the states when compared to the national average of Rs. 11,230. But, in Bihar, it is far from the national average.

The percentage of SHGs that have loan outstanding with banks is high in Bihar with 68% and low in Odisha with 53% when compared to SHGs at national level (61%). The average amount of loan outstanding with banks is low both in Odisha (Rs. 64,642) and Bihar (Rs. 50,311) as compared to national average of Rs.88,455. The average loan disbursed to SHG during 2012-13 in Odisha is high with Rs. 99,270 as compared to Bihar (Rs. 72,616). The percentage of non performing assets (NPA) against loan outstanding is almost three times in Odisha when compared to Bihar and national average. The above discussion clearly demonstrates that the SHG- BL is good in Bihar as compared to Odisha in terms of SHG credit linkages, loan disbursement and the percentage of NPA.

Composition of SHGs

The Government and NGOs are the major SHPIs in both the states. But, in Odisha, the SHGs are also promoted by federations (6%) and community (17%). Further, large number of SHGs in Bihar (71%) promoted by the Government, where considerable number of SHGs (44%) in Odisha were promoted by the Non-Government Organizations (NGOs). The SHGs in Odisha are older (6.5 years), almost double in age, when compared to the SHGs in Bihar (3.5 years) because of long years of Mission Shakthi[1] and NGOs engagement in the promotion of SHGs in Odisha. The average size of SHGs is small at present with 12 members when compared to the time of group formation (13 members). In both the states, the households mainly formed into groups to avail credit (86%), to promote savings for their future needs (69%) and to acquire knowledge of the happenings around them (29%).

About 40% of SHGs have reported withdrawal/dropout of members; however, there is no significant difference between Bihar and Odisha. Migration is the main reason for membership withdrawal than all other reasons such as marriage, death, ill-health, disinterest of husband, meeting, saving and lending norms, and delay in getting external loans. The Commercial banks are in the forefront followed by Grameen banks (25%) and Cooperative banks (9%) while linking SHGs with banks. Large numbers of SHGs have membership in their primary level federations[2] as both the State governments, Bihar Rural Livelihoods Promotion Society[3] (BRLPS) in Bihar and Mission Shakthi in Odisha, are keen in promotion of SHG federations for the sustainability of SHGs.

Of the total 3,581 members of 288 sample SHGs of Bihar and Odisha, majority of them are backward classes (54%), literate (54%), primarily engaged in agriculture & labour (71%) and are below poverty line (BPL) (56%). The coverage of Scheduled Tribes (STs) in Odisha is high with 21% when compared to Bihar (2%) as there is more tribal concentration in Odisha and less in Bihar because of separation of Jharkhand. Illiteracy is more among the SHG members in Bihar (55%) when compared to Odisha (37%). Both the states have large number of BPL households in the SHGs; however, the percentage of above poverty line (APL) households is high in Odisha (37%) when compared to Bihar (28%) as the BRLPS is more focused on poorest of the poor (PoP) strategy.

Performance of SHGs

a. Savings: There are two types of savings – compulsory and special. Some of the SHGs have promoted special savings for health and education. Besides, small numbers of SHGs have promoted savings with federations. Monthly savings are common among the sample SHGs (78%). However, some of the SHGs have the practice of weekly savings. Per member savings per month is higher in Odisha (Rs.70) compared to Bihar (Rs.40) as the SHGs in Odisha are older. As on August 2013, average savings per SHG in Odisha is Rs.39,591 and in Bihar it is Rs.22,372, indicating that the SHGs in Odisha have almost double the amount of average savings compared to Bihar as the Odisha SHGs are older and have a higher average monthly savings per member. Many SHGs (51%) in both the states increased their monthly savings over a period of time to get large volume of loan by increasing their group savings.

b. Meetings: Monthly meetings are widespread in both Bihar and Odisha. However, the frequency of weekly meetings is more in Bihar with 38% when compared to Odisha (12%) as the BRLPS is very keen in weekly meetings. Some of the sample SHGs (3% of SHGs in Odisha and 8% of SHGs in Bihar) still has no meeting schedule. The average percentage of meetings held against the number of meetings scheduled during the last six months is high in Bihar with 91% when compared to Odisha (69%). However, the average member attendance is high in Odisha with 10 out of 12 members when compared to Bihar (9 out of 12 members) as it could be more number of monthly meetings in Odisha and weekly meetings in Bihar.

During focus group discussions, the groups reported the reasons for low member attendance such as i) urgent/emergency work, ii) ill health of SHG/HH member, iii) work pressure/peak agricultural season (32%), visitors in the house, v)

Migration /work outside the village, vi) fairs & festivals, vii) pregnancy/lactating mother and, viii) long distance of the meeting venue. The meeting agenda mostly confined to financial aspects such as collection of savings, loan installments and disbursement of loans; small number of SHGs reported about non-financial and development agenda – book keeping and accountancy, social issues, skill building & livelihoods etc.

c. Book Keeping: The majority of the SHGs maintained minutes book (95%), member pass books (82%), savings ledger (66%) and loan ledger (58%). The SHG members are the book writers to large number of SHGs (45%) followed by SHPI staff (20%), unpaid non-members (11%), book keepers paid by SHGs (7%) and others (16%) include educated persons, relatives, children of SHG members, etc. Of the sample SHGs, small percentage of SHGs in both the states (29% of SHGs in Bihar and 24% of SHGs in Odisha) have paid honorarium, less than Rs. 50 in most of the SHGs.

d. Leadership: The sample SHGs reported that the major roles and responsibilities are i) regular savings/ repaying loan (92%), ii) organizing meetings (91%), iii) depositing of amount in bank (88%), iv) ensure member attendance (80%), v) attending trainings (63%), vi) attending federation meetings (62%), vii) regular book keeping (62%), viii) participation in group meetings (59%), ix) support to co-members (53%), x) participation in government programs (31%) and xi) coordination with officials (28%). Most of the SHGs in both the states have given importance to communication skills (89%), good character (85%) and educational levels (62%) while selecting their group leaders.

The incidence of leadership rotation in SHGs is very low in Bihar with 3% when compared to Odisha (37%) as more number of old groups in Odisha against Bihar. Further, as the age of SHGs increases the percentage of SHGs changing leaders also increases. During the focus group discussions, the SHGs mentioned the issues related to change of leadership as i) present leaders are unwilling to step down (26%), ii) other members are unwilling to take up leadership (39%), iii) bankers are not accepting for the change of leadership (21%), iv) all other members are illiterates (11%) and v) not aware of leadership rotation.

e. Fund Mobilization & Access to Credit: *Internal funds mobilization vs. idle funds in SHG savings bank accounts (SB A/c)* - The SHGs have mobilized large amount of savings from the members with an average of Rs. 30,860 per SHG. The SHGs in Odisha have a much higher savings almost twice as much as what the average of savings is for Bihar SHGs. The major portion of the group funds are the savings of the members in SHGs. The majority of the funds are with the group members as loan outstanding (55%). Nevertheless, large amount of funds are in SHG SB accounts as idle funds (45%); Odisha SHGs seem to have a larger amount as idle funds on an average (Rs. 9,598 in Bihar and Rs. 30,066 in Odisha). During focus group discussions, the groups have reported the reasons for large amount of funds in SB accounts as i) to get large volume of loan, ii) banks not allowing to withdraw, iii) to avoid multiple loans & defaulting, iv) no lending/ yearly distribution, v) distribute at the time of SHGBL and vi) others like leaders not allowing to withdraw due to fear of low recovery etc. Of the total loan outstanding with the members, major portion is of SHG funds (37%) and their federations (31%) followed by banks (33%). It shows that the contribution of banks in SHG lending is less when compared to SHG funds.

Loan Outstanding with External Credit Agencies: Table 2 shows that the percentage of SHGs has group funds as loan outstanding is high, more than double in Bihar when compared to Odisha as it would be large amount of idle funds in Odisha SHG SB accounts. The percentage of SHGs credit linked to banks, federations and NGO-MFIs is small in both the states. However, the percentage of SHGs is more in Bihar when compared to Odisha. Similarly, the average amount of loan outstanding to SHGs, banks, federations and NGO-MFIs is high in Odisha when compared to Bihar as it is because of large volume of loans, more number of older groups and low repayment rate in Odisha.

Table 2: Source-wise Details of Current Linkages in Bihar and Odisha (Amount in Rupees)

State	SHG Funds		Bank Linkage		Federation		NGO-MFI	
	% of SHGs	Avg. Loan O/s	% of SHGs	Avg. Loan O/s	% of SHGs	Avg. Loan O/s	% of SHGs	Avg. Loan O/s
Bihar	88	22,521	35	25,232	38	29,311	15	22,521
Odisha	40	34,278	24	89,522	15	1,26,989	13	38,040

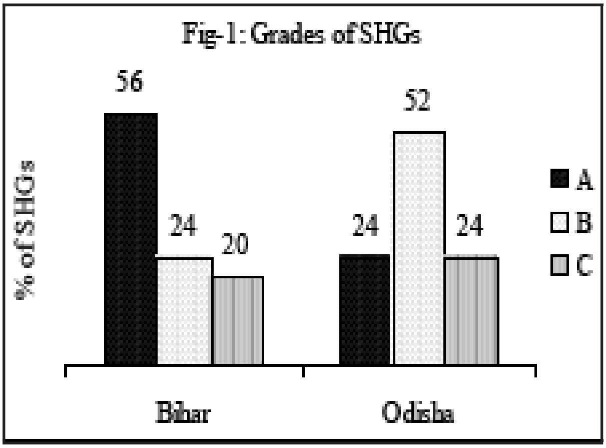
Repayment Rate & Default: The repayment rate from SHGs to banks is high in Bihar with 67% as compared to Odisha (56%); whereas the average repayment rate from SHGs to federations is high in Odisha with 76% as compared to Bihar (68%). According to a study conducted by ENABLE Network in 2013, the average loan repayment rate from SHG to banks in Bihar is 63%. It shows that there is an improvement in loan repayment rate. The data in Table 3 shows that there is a high incidence of loan default in case of loans from internal/ SHG funds (58%) when compared to banks (54%) and federations (47%), and the amount also vary from source to source. The percentage of SHGs reported default of loans from SHG funds, banks and federations is 2-3 times higher in Bihar when compared to Odisha. It shows that the loan repayment from SHGs to banks, federations and NGO-MFIs is a big issue. The majority of SHGs (54%) have reported default with large amount of over dues to SHGs, banks and federations. There is a significant difference between states in the percentage of SHGs reported default (72% in Bihar and 29% in Odisha). The average amount of over due is high in Odisha when compared to Bihar because of large volume of loans from banks, federations and NGOs.

Table 3: Details of Loan Default and Average Over Due Amount (in Rs.)

State	SHG –funds		Bank Loan		Federation	
	% of SHGs	Over due Amount	% of SHGs	Over due Amount	% of SHGs	Over due Amount
Bihar	73	15,074	72	20,238	61	21,736
Odisha	26	24,179	29	55,719	10	69,090

Grading of SHGs

NABARD Critical Rating Index (CRI) tool was applied to know the quality of SHGs and to grade as A, B and C. If a group scores more than 70 out of 100 marks, graded as A, between 50 and 69 marks as B, and C if a group scores less than 50 marks.



Of the sample SHGs, 40% are of A-grade, 38% are of B-grade and the remaining 22% are of C-grade. However, majority of the SHGs in Bihar are of A-grade; where as majority of the SHGs in Odisha are of B-grade (see Figure 1) According to the study conducted by ENABLE network, of the 252 sample SHGs, 38% are A-grade, another 38% are B-grade and the remaining are C-grade (24%) in Bihar (Reddy and Reddy: 2013). It shows that the quality of SHGs has increased because of BRLPS' attention on strengthening of SHGs and their federations and capacity building of staff at all levels.

The percentage of A-grade SHGs is high in groups promoted by Government (50%) when compared to other promoters – Self (42%), Federations (33%) and NGOs (26%). The percentage of A-grade SHGs is high among minorities (63%), and low among STs (7%) when compared to other SHG social categories. Of the SHGs loan outstanding with banks, majority of the SHGs are A-grade (54%) followed by B (28%) and C-grades (18%).

Impact of SHGs

The impact of SHGs is visible at various levels such as groups, institutional, village, household and individual assets creation. The majority of SHGs reported significant increase in credit sources, group corpus, cooperation among the members, etc. The impact is significantly higher in Odisha as the SHGs there are much older and the SHG movement has achieved significant scale in that state. The linkages between SHGs and the institutions at village level have been increased moderately. The percentage of SHGs reported the increase of SHG members' participation in Gram Sabhas is more than double in Odisha (72%) when compared to Bihar (32%); however there is no much difference between Bihar (42%) and Odisha (44%) in attending GP meetings. But the participation of SHGs in national festivals is more than double in Bihar (58%) when compared to Odisha (23%). The percentage of SHGs addressed village issues is high in Odisha with 35% when compared to Bihar (15%).

At the household level many changes have taken place - number of credit sources has increased after joining SHGs and the dependency on the money lenders have decreased. As a result, the habit of savings (93%), health status (77%) and educational levels (72%) of the household members has also increased. Some of the members have procured productive assets. Besides, a good number of SHG members purchased mobile phones and televisions. There are changes in the interpersonal relations between SHG women and the other household members. The household members of the SHGs are cooperative towards the women in attending the group meetings (96%), paying the loan installment (81%) and to work outside the village (55%). The majority of them have equal access to family income, decision making and control over resources.

Conclusions and Recommendations

Conclusions

Based on the sample study, it can be concluded that the SHGs in Bihar are of better quality as 56% of them are A grade and another 24% are B grade SHGs. On the other hand only 26% of the SHGs in Odisha are A grade and 52% of SHGs are B grade. With regard to access to bank linkage and impact, the SHGs in Odisha seem to have fared better as compared to Bihar SHGs. Some of the major reasons for these significant differences between Odisha and Bihar are:

(i) SHGs in Odisha are older and limited investments have been made in the capacity building of the SHGs and SHG federations as there was limited external funding from agencies like Department for International Development (DFID) and the World Bank which was confined to select districts of the state;

(ii) Following the mission mode, Government of Odisha under the umbrella of Mission Shakti facilitated the formation of a large number of SHGs and their federations in the state moving towards saturation;

(iii) In Bihar the SHG movement has not achieved significant scale and in the past couple of years BRLPS-Jeevika is moving towards universalising the SHG system in Bihar with support from the World Bank and National Rural Livelihoods Mission (NRLM);

(iv) SHG Bank linkage achieved significant scale in Odisha in spite of the quality of SHGs being moderate and it is still to gain full momentum in Bihar as it is evident from the NABARD data;

(v) Significant capacity building investments have been made in Bihar at the SHG level focusing on member education and building SHG federations through a bottom up approach, where as in Odisha the capacity building efforts at the SHG level have been limited; and

(vi) Transition from SGSY to NRLM over a prolonged period resulted in a higher NPA in Odisha compared to much lower NPA of SHG Bank linkage in Bihar.

Recommendations

In both the States, NRLM has been initiated and now there is clarity of one agency being responsible for SHG movement. There is a definite need handle the NPA issue in Odisha by making the SHG federations at village and block level responsible to ensure prompt repayment of bank loans and a much greater emphasis on the capacity building of members of SHGs and SHG federations.

In Bihar the SHG movement is achieving scale through a systematic approach ensuring quality of the system and federations taking responsibility for the sustainability of the SHGs. In Odisha, already significant scale has been achieved. The most urgent need is to focus on consolidating the efforts to improve the quality of the SHGs and strengthening the SHG federation system in line with the NRLM implementation strategy.

NOTES

1 Mission Shakti is a platform for the SHG movement in Odisha promoted by the State Government and has been in existence for almost 15 years spearheading the promotion of SHGs & their federations and establishing enabling policy environment for the SHG system to flourish.

2 In Bihar there are 6,646 SHG federations Bihar; of which 6,543 are primary federations and 103 are secondary federations. Where as in Odisha there are 11,356 SHG federations; of which, 10,952 are primary, 364 are secondary and 40 are tertiary federations (APMAS, 2013)

3 Bihar Rural Livelihoods Promotion Society (BRLPS – also called Jeevika) is a society promoted by Government of Bihar to implement World Bank funded poverty reduction programme. BRLPS is now designated as the State Rural Livelihoods Mission (SRLM) under NRLM of Rural Development department of Government of India.

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Socio-Economic Impact of Non-Governmental Organisation (NGO) Promoted Self-Help Groups in Punjab

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A lot more efforts required on part of the Government, NGOs as well as the banking sector to promote SHGs in Punjab. The SBLP has been accepted as an effective tool for inclusive growth by extending various services to the poor rural households. In recent years, SHGs have become significant institutions for rural development.

Abstract

The present paper highlights the socio-economic impact of Self-Help Groups (SHGs) promoted by Non-Governmental Organisations (NGOs) in Punjab. The study was carried out by taking a sample of 100 respondents from 20 SHGs from two districts of Punjab, namely, Ludhiana and Jalandhar. The results of the study showed that an average of ₹5,414 was being saved by the members annually after joining the SHGs, which is almost 2.6 times more than the amount saved in pre SHG situation. After joining the SHGs, average annual income and average value of assets of the members increased to ₹82,960 and ₹80,279 showing about 29% and 39% increase from the pre SHG situation respectively. Majority of the members revealed that their influence on economic resources, decision making ability and their confidence had increased after joining the groups. The major problems faced by the members were found to be the lack of training and capacity building, non-cooperation from the banks and marketing problems. The study suggested that it requires a lot more efforts on part of the Government, NGOs as well as the banking sector to promote SHGs in the state. There is a crucial need to focus on awareness programmes, imparting training and developing entrepreneurial skills among the rural poor.

Introduction

Over 22% of its rural population and 15% of its urban population is living below poverty line (Government of

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India, 2011). The structure of rural financial market in India is dualistic consisting of both formal and informal financial intermediaries. Since independence, the formal banking institutions had ignored the poor due to perceived high risks, high transaction costs involved in small-scale rural lending to a large number of poor households and absence of collateral securities. In the absence of a healthy institution-customer relationship and the resulting unsatisfactory institutional supply of credit, the informal financial system continued to fulfill the needs of credit. Against this backdrop of failures, microfinance schemes using self-help groups (SHGs) were designed (Mansuri, 2010). To cater to the financial needs of rural poor, in 1992 NABARD introduced the SHG-Bank Linkage Programme (SBLP) which was launched as a pilot project in partnership with NGOs. A SHG is a small socio-economically homogenous affinity group of 10-20 persons who come together to save small amounts regularly, mutually agree to contribute a common fund, have collective decision making, or resolve conflicts through collective leadership and mutual discussion. SHG has evolved as an accepted institutional framework to provide financial services to the poor. NGOs were responsible for converting the pilot project of microfinance into a major programme. They have a crucial role in group formation, nurturing SHGs in the pre-microenterprise stage, capacity building and enhancing credit absorption capacities (Padhi, 2003). The main role of NGOs is to prepare the members to participate in the group activities through changing their mindset.

The number of SHGs in the country had multiplied many fold. However, there is skewed growth of the SHGs across the regions of the country. The Southern region accounts for 46% of the SHGs and 76% of the SHG credit, while the Northern region accounts for a mere 5.1% of the number of SHGs and only 2% of the SHG credit. Out of this, Punjab accounts for only 9.1% of the number of SHGs and 7.1% of the SHG credit. Punjab has been classified as high volume and low penetration state (less than 25%) on the basis of credit for SHGs and percent of poor families receiving finance through SHG channel (Dasgupta, 2005). One of the reasons of this low volume may be the lack of popularity of NGOs in the state. Only 48 NGOs were involved in the formation of SHGs till 2011-12. The SBLP has been accepted as an effective tool for inclusive growth by extending various services to the poor rural households. In recent years, SHGs have become significant institutions for rural development.

Earlier studies have revealed that SHGs had a significant positive impact in reducing poverty, generating more employment opportunities, improvement in living standard, reduced gender inequality and improved status of women (Manimekalai and Rajeshwari, 2000; Singh, 2006 and Bansal, 2000). In Punjab the average annual income of the members increased to ₹54,474 after joining the SHG showing about 76% increase than pre SHG situation. Further, majority of the members (8%) agreed that their influence on economic resources of the family had increased after joining SHGs (Singh, 2006). The SHGs formed by NGOs had a better saving performance compared to that of Self-Help Group Promoting Institution (SHPI) in terms of credit-saving ratio (Namboodiri and Shiyani, 2001). Loan repayment in case of all NGOs was more than 95%. Almost 50% of the NGOs were facilitating flow of funds to rural poor by acting as intermediaries (Bansal, 2000). Lack of skills and training, inability to identify economically viable activities, high rate of interest and problems in marketing were some of the problems faced by the members of the SHGs (Misra, 2006, Singh, Kumar and Singh, 2009 and Mansuri, 2010).

In India, most of the studies had been carried out in central and southern regions and there is a dearth of studies on impact of microfinance in northern India. The present study is a modest attempt in this regard. It is believed that SHGs had significantly contributed in improving the socio-economic status of the poor member households. Therefore, the present study was conducted to study the impact of NGO promoted SHGs on various socio-economic parameters of the member households and to highlight the problems faced and policy options to overcome these problems.

Methodology

The present paper is a part of the larger study conducted for the award of M.Sc. Dissertation (Sorokhaibam, 2014). The study was concentrated on the SHGs formed under the SHG-Bank linkage programme promoted by the NGOs. A detailed listof NGOs promoting SHGs was obtained from the NABARD, Ludhiana branch office. In Punjab; a total of 48 NGOs were involved in promotion of SHGs till 2011-12. A total of 1,777 SHGs promoted by NGOs were saving linked and 1031 SHGs were credit linked (NABARD, 2012). Amongst these, a sample of five NGOs was selected randomly. Four NGOs were from Ludhiana and one from Jalandhar districts. Four SHGs were then selected randomly from each NGO for in-depth analysis making a total of 20 groups. The selected SHGs were all women group. Amongst the selected SHGs, five members from each of the SHG were randomly selected making a total sample of 100 respondents. To ascertain the impact of SHGs on the livelihood of the members, primary data about various socio-economic parameters like land holding, income, saving, asset positions, borrowing, employment and social factors like economic empowerment, self-empowerment and so on. were gathered for two points of time, that is, for the year preceding to formation of SHG (pre SHG) and for the year 2012-13 (post SHG).

Results and Discussion

Support to NGO Working as SHPIs in Punjab

The NGOs are important intermediaries in bringing up SHGs. They are a catalyst in between SHGs and funding agencies like banks and MFIs. Table 1 shows the number of NGOs that have been provided grant support for the formation of SHGs, amount of grant released and number of SHGs credit linked in Punjab. It is evident from the table that in Punjab up to the year 2011-12, a total grant of ₹3.39 million was released to 48 NGOs for promotion of SHGs. It can also be seen that a total of 1,031 SHGs promoted by NGOs were credit linked. Further, the percentage share of total number of NGO promoted SHGs credit linked to the total number of SHGs credit linked in the state was 5.9%.

Table 1: Grant Support Sanctioned to NGOs Working as SHPIs, Punjab, 2007-08 to 2011-12

Year	No. of Beneficiary NGOs	Grant Released (₹Million)	No. of SHGs Credit Linked by NGOs	% of total SHGs Credit Linked
2007-08	27	1.33	603	6.73
2008-09	31	1.23	528	4.72
2009-10	47	2.14	728	5.61
2010-11	52	3.19	963	6.27
2011-12	48	3.39	1031	5.88
CAGR (% p.a.)	18.15	32.63	18.22	

Source: Status of Microfinance, NABARD, Various issues.

Socio-Economic Characteristics of the Members

Socio-economic characteristics of the members had a significant influence on the impact of SHGs on member households. The age-wise distribution of sampled members revealed that most of the members were between the ages of 30-40 years (56%). The average age of SHG members was found to be 37 years which is considered as the most productive risk taking periods of person's life (Table 2). An analysis of the educational status of the respondents revealed that 18% of the sample members were illiterate. Of the literates, 42% had studied up to high school followed by, higher secondary (11%), middle (9%) and graduation and above (3%). The table further revealed that most of the SHG member households were landless (41%) or marginal farmer (52%). The average size of land holding was 0.93 acres.

Table 2: Socio-Economic Characteristics of the Member Households, Punjab 2012-13

Particulars	Percentage
Age (years)	
20-30	7.0
30-40	56.0
40-50	26.0
50-60	11.0
Average age (years)	37.0
Education Level	
Illiterate	18.0
Primary	16.0
Middle	9.0
High School	42.0
Higher secondary	11.0
Graduation and above	3.0
Owned Land Holdings per Household (acres)	
Landless	41.0
Marginal (<2.5)	52.0
Small (2.5-5.0)	7.0
Average holding (acres)	0.9

Impact of SHGs on the Economic Aspects of the Member Households

An attempt has been made to understand the economic benefits accrued to the members due to their involvement in SHGs based on thrift and credit. Major economic indicators like income, saving, borrowings, occupation and assets were studied. The impact was then measured by estimating the changes in these parameters between the pre-SHG and post-SHG situations.

Impact on the Level and Composition of Household Income

The average annual income of the members increased to ₹82,960 in post-SHG situation from ₹64,420 in pre- SHG situation, showing about 29% increase after joining the SHG (Table 3). The table further revealed that before joining the SHGs, most of the member household (about 40%) earned an average of ₹25,000-50,000 per annum and 29% of the member household had average annual income between ₹50,000-75,000 and only three percent of the member household earned more than ₹1,25,000. However, after becoming involved in the SHGs, the average annual income of the majority of the respondents (about 34%) was between ₹50,000-75,000. The percentage of households who earned between ₹25,000-50,000 decreased from 40% to 11% and those who earn more than ₹1,25,000 increased from 3% to 10%.

Table 3: Distribution of sample Households According to the Average Annual Household Income, Punjab, 2012-13

Income Level (₹)	Pre-SHG Situation	Post-SHG Situation
25000-50000	39475 (40)	41636 (11)
50000-75000	61931 (29)	60676 (34)
75000-100000	84667 (15)	85222 (18)
100000-125000	109230 (13)	107037 (27)
≥125000	125667 (3)	135100 (10)
Average	64420 (100)	82960 (100)

Note: Figures in the parentheses indicate the proportion of members in each category.

Table 4: Source-wise Composition of Household Income for Sample Household, Punjab 2012-13

Sl. No	Sources of Income	Pre SHG	Post-SHG
1	Farming	13710 (21.2)	20550 (24.8)
2	Service	12820 (19.9)	17300 (20.9)
3	Dairy	4730 (7.3)	9340 (11.3)
4	Economic activity	6420 (9.9)	18160 (21.9)
5	Labour	25480 (39.6)	14600 (17.6)
6	Other	1260 (1.9)	3010 (3.6)
	Average	64420 (100)	82960 (100)

Note: Figures in the parentheses indicate percent of total income.

In pre-SHG situation about 40% of the households' income was contributed by earning as labour followed by about 21% through farming (Table 4). In post SHG situation share of income as labour had decreased to 17.6% while the share of income from economic activities increased to about 22% in post SHG situation from about 10% in pre SHG situation. The share of income from farming and dairy sector had grown up to 24.8% and 11.3% respectively in post SHG situation. It can be concluded that member households had increased the number of activities allied to agriculture and in other non-farm sectors after getting access to credit through SHG.

Impact on Savings of the Member Households

One of the primary benefits of participating in a SHG is the opportunity to save regularly, access formal savings institutions and participate in the management of these savings. It may be noted that 52% of the sample member households were saving in pre-SHG situation as compared to almost all the members saving in post SHG situation (Table 5). Majority of the households, (34%) were saving up to ₹3,000 in pre SHG situation which increased to 43% in post SHG situation. Only five percent of the households were saving more than ₹2,000 in pre SHG situation but in Post SHG situation 10% of the sample households were saving more than ₹12,000. The average annual saving of the sample households in pre SHG situation was ₹2,071 which increased to ₹5,414 after joining the SHGs, almost by 2.6 times.

Table 5: Distribution of Sample Households According to the Average Annual Saving, Punjab, 2012-13

Saving (₹)	Pre-SHG	Post-SHG
Up to 3000	1491 (34)	1749 (43)
3000-6000	4333 (6)	3881 (27)
6000-9000	6629 (7)	6522 (18)
9000-12000	-	11000 (2)
≥ 12000	12000 (5)	22200 (10)
Average	2071 (52)	5414 (100)

Note: Figures in the parentheses indicate the proportion of members having savings in each category.

Impact on Asset Position

The household assets consist of houses, farm houses, animal sheds, milch and working animals, productive assets such as tractor, farm equipments, cartload, auto rickshaw, taxi, tools and so on and consumer durables consisting of television, refrigerator, vehicles and some other household durables. However, the impact of SHGs was more evident in creation of new assets in non-farming sector. Therefore, the impact was examined through the change in animal assets, productive assets and consumer durables in pre and post SHG situation. About 32% increase in the overall average value of assets can be seen from ₹80,279 in pre SHG situation to ₹1,06,224 in post SHG situation (Table 6). The table further revealed that animals were the largest assets for the poor families as the average value of animal assets had a major share to the total average value of assets both in pre SHG (40.6%) and post SHG (43.2%) situation. The shares of other productive assets remained almost same in pre (24.3%) and post (24.9%) SHG situation but their average value increased to ₹26,474 in post SHG situation from ₹19,479 in pre SHG situation. This increase in the value of productive assets may be due to the start of economic activities by the member households. Whereas the share of consumer durables decreased to 31.9% from 35.2% but their average value increased to ₹33,880 from ₹28,240. This revealed that with increased access to credit and income there was an increase in the purchasing power of the member households.

Table 6: Asset Position of the Sample Households, Punjab, 2012-13 (₹)

Assets	Pre-SHG	Post-SHG
Animals	32560 (40.6)	45870 (43.2)
Other productive assets	19479 (24.3)	26474 (24.9)
Consumer Durables	28240 (35.2)	33880 (31.9)
Total	80279 (100.0)	106224 (100.0)

Note: Figures in the parentheses indicate percent of total assets.

Impact on Employment Generation and Occupational Pattern

SHG had enabled poor people to take up income generating activities in order to improve their standard of living. An attempt has been made to understand the real employment creation scenario by calculating the mandays/annum/member of employment generated in farm and non-farm sectors as a result of joining the SHGs. The employment generated in the farming sector increased by 36.6% after joining the SHGs, that is, from 60.60 mandays/annum/member to 82.80 mandays/annum/member (Table 7). The non-farm sector includes income generating activities like tailoring, embroidery, food processing, detergent and soap making, etc. The employment in non-farm sector showed multifold increase as compared to farm sector. This was due to the involvement of majority of the members in income generating activities after joining the SHGs. The employment increased by 211.3%, that is, from 46.86 mandays/annum/member to 145.86 mandays/annum/member.

Table 7: Employment Pattern in Farming Sector and Non-Farming Sector for Sample Members, Punjab 2012-13

(Man-days/annum)

	Farming Sector	Non-Farming Sector
Pre SHG situation	60.6	46.9
Post SHG situation	82.8	145.9
Percent Change	36.6	211.3

Table 8 showsignificant change in the occupational pattern of the members in the post SHG situation. In pre SHG situation, only 47% of the members were involved in economic activities. The proportion was found to increase tremendously in the post SHG situation as 88% of the members were engaged in various economic activities. Diversification of the economic activities can be seen towards the nonfarm sector as majority of the members (73%) were involved in activities like food processing, embroidery, tailoring, detergent and soap making, etc. In farm sector, about 22% of the members adopted dairying as their profession. Opening of beauty parlour, boutique and detergent and soap making were the activities which could be started by the members after joining the SHGs. Thus, it can be concluded that SHGs provided the members with financial as well as technical assistance in starting various economic activities, which resulted occupation diversification.

Table 8: Involvement of Sample Members in Various Economic Activities, Punjab, 2012-13

(Percent)

Occupation	Pre-SHG	Post-SHG
Bee keeping	8.0	9.0
Beauty parlour	-	1.0
Boutique	-	4.0
Catering	1.0	5.0
Dairy	14.0	22.0
Detergent and soap making	-	8.0
Embroidery	11.0	14.0
Food processing	6.0	15.0
Tailoring	7.0	10.0
No activity	53.0	12.0

Impact on Borrowing Pattern

Formal agencies like commercial banks, co-operatives provide credit to the SHG members. Member also procure loan from SHGs through inter-loaning in order to meet their household credit needs. Besides these credit agencies, certain informal agencies like moneylenders, commission agents, family and friends were also actively involved in forwarding credit to member households. Access to credit had increased after joining the SHG. An increase of 78.8% can be seen in the total borrowing of the member household from ₹19,260 in pre-SHG situation to ₹34,430 in post-SHG situation (Table 9). The dependence on informal agencies for credit reduced drastically. Formal agencies forwarded about 84% of the total credit and the share of informal agencies was merely 16% of the total credit in the post SHG situation. This shift in the borrowing pattern might be largely due to easy access to credit for consumption as well as productive purposes at low interest rates as compared to private money lenders after joining the SHGs.

Table 9: Agency-wise Borrowings for the Sample Households, Punjab 2012-13

(₹)

Agency	Pre-SHG	Post-SHG
Formal Agencies	5850 (30.4)	28780 (83.6)
Informal Agencies	13410 (69.6)	5650 (16.4)
Total	19260 (100.0)	34430 (100.0)

Note: Figures in the parentheses indicate the proportion of total loan in each category.

Impact of SHGs on Social Aspects of Sample Households

The economic independence achieved through joining SHG is expected to generate increased self-respect, self-esteem, self-confidence and other forms of empowerment for women participants of the programme. The process of empowerment of the beneficiaries of the programme is not automatic, but depends upon many factors. Table 10 presents the impact of SHGs on various social parameters of member households. Majority of the members (83%) agreed that their influence on economic resources of the family had increased after joining the SHGs. This can be attributed to the fact that access to group savings and micro credit had enabled them to take economic activity that improved their financial position. This study highlights the change that has happened in the decision making process within the family after the respondents became the member of SHGs. About 63% of the members agreed that there was an increase in the participation of economic decision making in the family. About 56% of the member reported improved decision in loan utilisation. Still large proportions of the members were not wholly independent in making decisions about utilisation of loans. One reason may be due to the existence of patriarchy

Table 10: Impact of SHGs on Various Social Aspects of Sample Households, Punjab, 2012-13

Sl.No.	Particulars	Percentage
I	*Impact of SHGs on economic empowerment*	
1	Increased influence over economic resources	83
2	Increased participation in economic decisions	63
3	Increased decision in loan utilisation portfolio	56
II	*Impact of SHGs on self empowerment*	
1	Increased participation while taking important family decisions	63
2	More confidence and improvement in dealing with people	58
3	Increased public relation and social participation	56
III	*Impact on Technical, managerial and political aspects*	
1	Gained special commercial/marketing strategy	63
2	Increased technical and managerial skill	61
3	Enhanced leadership qualities	36
4	Member of Gram Panchayat	20

in our society. Many women still lack confidence in making decisions on their own and they get easily influenced by their male counterparts who usually compel them to diversify the loan for other purposes.

The social impact of the SHG programme increased involvement in decision-making, awareness about various programmes and organisations and increased access to such organisations. About 63% of the members had reported increased participation in taking decisions regarding general welfare of the family like education of children, utilisation of loans, procurement of raw material purchasing of assets and other household expenses. SHGs had a good impact on its members in their ability to express their feelings and made people more confident to express oneself. Increased in confidence and improvement in dealing with people were seen in 58% of the members and about 56% of the members reported increased public relation and social participation after joining the SHGs. Increased knowledge of special commercial/marketing strategy (63%), improvement in technical and managerial skills (61%) and enhanced leadership qualities (36%) were some of the other social benefits gained by the members after joining the SHGs. Only few members (20%) were found to be the members of the Gram Panchayat.

Problems Faced by the Members of the SHGs

There is disparity in the income level of the Indian population. On one side one segment of the people is becoming very rich and on the other side another segment is facing poverty. The basic aim of the launch of SHG programme was to help the poor to get access to credit. In spite of the Government's supports, members of the SHGs were still facing certain problems in performing their functions affecting the growth of the SHGs. The present section has been designed to study the major problems faced by the member households. Amongst the various problems faced by SHG members, majority of the members (85%) reported a net credit deficiency when it came to internal lending among themselves, prior to bank lending (Table 11). Members were unable to generate enough savings by themselves for the purpose of internal lending. Since the main reason of major-

Table 11: Problems Faced by the Sampled SHG Members, Punjab, 2012-13

(Percent multiple response)

Sl.No.	Particulars	Proportion of the Members
1	Lack of sufficient finance during internal loan operations, prior to bank credit linkage	85.0
2	Lack of coordination among members	75.0
3	Problems in finding profitable income generating activities	70.0
4	Non-cooperation of banks	22.0
5	Loan is not adequate	78.0
6	Lack of adequate training	53.0
7	Problems of marketing	65.0

ity of the members for joining the groups was to avail credit, lack of funds for internal lending was one of the major problems ~~faced by them. About 75% of the~~ members reported that there was lack of coordination among the members. Since a group consists of people from almost all walks of life, each one had her own opinions. So, it was difficult to coordinate and cooperate among them. A lack of coordination in a group can decrease productivity, complicate processes and delay the completion of tasks. One of main reasons of joining SHG for majority of the women was to avail credit and use it to start income generating activities (IGAs). But due to lack of skills and awareness, 72% of the members still found it difficult to choose suitable IGAs. About 22% of the members felt that bankers were not cooperating with them and they were reluctant to provide loans or increasing the cash credit limit even if the groups were eligible for it. Many bankers still felt that loans to these poor people will not be recovered. The main problems of the respondents revolved around non availability of sufficient quantum of loan and inability to generate income or sufficient income from their association with the SHGs. About 78% of the members reported that loans given to them were not adequate for starting new IGAs. Insufficiency of individual loans may have been due to the limited resources of the SHG and the growing loan requirements of the members. Trainings were provided by the promoting NGOs and other government departments to the group members. Still 53% of the members felt that there was lack of adequate training facilities. Trainings were given at far away places and it was difficult for the members to attend them due to involvement in household chores. Moreover, they felt that the trainings were not practical oriented and not according to the need of the members. About 65% of the members reported that they are unable to sell the goods manufactured by them. The main reasons of this problem were lack of quality marketing, branding and selling skills. Many of the women did not follow any marketing strategy to popularize their products. Only during exhibitions, fairs or melas they get the opportunity to showcase their products. Also, the standard of the products was a problem. Nowadays, people are more quality conscious and brand aware. As a result, consumers are reluctant to buy their products when the products produced by the MNCs are available in the market.

Conclusion and Policy Implications

Self-help group bank linkage model has proved its efficiency in mainstreaming the traditional banking and microfinancing. It has enabled the poor, especially the women from the poor households, to collectively identify and analyse the problems they face in the perspective of their social and economic environment. About 2.6 times increase in saving can be seen in post SHG situation. Involvement in economic activities post SHG has also resulted in increase in employment However, it was seen that the increase in income was very meagre, only 29% increase in the post SHG situation from pre SHG situation and the share of income from economic activities was only 22%. In spite of the concerted efforts on the part of various agencies, it is clear that the failure of the programme is seen. Lack of adequate loan, inability to identify profitable income generating activities (IGAs) and the problem of marketing were the major problems faced by the members. Government should make necessary policy measures to increase the per group loan amount if sustainability of the SHGs are to be achieved. SHGs will sustain only if they are involved in some form of micro-enterprises or IGAs. Lack of training and awareness were the main problems faced in this regard. Thus, findings emphasized the need for greater thrust to human resource development. There is an urgent need of providing continuous training and capacity building to SHG members, including financial literacy. The SHGs promoting agencies should first of all identify the economically viable activity according to the availability of raw material and demand of products in the area. Then, the training programme should be framed accordingly. Absence of proper grading system and non-branding of the produce were the main reasons behind the problem of marketing. The provision of product marketing facilities may boost the productivity of micro-loans which may further enhance the impact of microfinance programme. In this regard NABARD should investigate and appropriate support measures should be taken up for improving quality and market access for rural products, at the District, State and national levels. There is a crucial need to focus on awareness programmes, imparting training and developing entrepreneurial skills among the rural poor. The bankers should coordinate the formation and functioning of the SHGs linked to them. Presently, all efforts should be concentrated on nurturing and strengthening of the existing groups. There is a need for micro-level planning to identify key livelihood activities. In order to identify appropriate income generating opportunities, facilitating NGOs can carry out village potential mapping in collaboration with NABARD in order to have a knowledge base about the availability of resources/raw materials which can be utilised for initiating new income generating activities. If the efforts are made in the right direction, SHG-bank linkage programme can prove to be a sustainable system to get the people out of poverty.

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Role of Microfinance on the Empowerment of Poor Women Living in Kolkata

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Microfinance has become the buzz word for poverty alleviation and women empowerment. Microfinance, as an alternative source of financial assistance for the poor (especially for women). It enabling them to raise their income level and improve their standard of living.

Abstract

Women Empowerment plays the key role in sustainable development. Kabeer (1999) defines empowerment 'as the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them'. Thus women empowerment implies enhancing capabilities and entitlements so that poor women can access better living conditions, improved health and education status, greater autonomy in decision-making and fulfillment of their roles as wives, mothers and workers under non-oppressive conditions. There has been much debate about the way of achieving women empowerment. Microfinance, as an alternative source of financial assistance for the poor (especially for women) has received wide attention in the recent years owing to its contribution to women empowerment. The assumption is that with increasing access to microfinance women will be enable to make their own decisions about credit, savings and setting-up micro-enterprises with increasing control over their income. Greater controls over financial resources enable women to make a greater contribution to household income which increases household well-being and the well-being of themselves. But how many dimensions can be fulfilled by microfinance as it has multi-dimensional approach? With an empirical study in Kolkata Municipal Corporation Area, this paper tries answer these questions.

Introduction

Microfinance has become the buzzword for poverty alleviation and women empowerment. In India,

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Key Words: Women Empowerment, Microfinance, Micro-enterprises

"Microfinance" is defined as "the provision of thrift[1], credit and other financial services and products of very small amounts to the poor in rural, semi-urban and urban areas for enabling them to raise their income level and improve living standard (NABARD, 1999)." The four core themes of the World Microcredit Summit (1997) were:

1. Reaching to the poorest
2. Reaching and empowering women
3. Building financially self-sufficient institutions
4. Ensuring a positive measurable impact on the lives of clients and their families (M. Banumathi and Sheena Mathew (2010)

The assumption is that with increasing access to microfinance women will be able to make their own decisions about credit, savings and setting-up micro-enterprises with increasing control over their income. Greater controls over financial resources enable women to make a greater contribution to household income which increases household well-being and the well-being of themselves.

Literature Review

Women Empowerment: The World Bank (World Bank, 2001) has suggested that empowerment of women should be a key aspect of all social development. All the Millennium Development Goals can be achieved through women empowerment. Generally women empowerment is viewed in terms of two different conceptions: (i) One-dimensional concept of empowerment focuses on political empowerment and deals with notion of power as command (Batliwala, 1993). There are three distinguish usages of power as command – having command over one's own body and actions, and over institutional resources such as decision-making bodies, (ii) Multidimensional concept of empowerment that incorporated dimensions like social, economic and psychological and political. In its broader conceptualisation, empowerment refers to capacity building (Dhulia M. L. and Singh. P, 2011). Stromquist (1994) has included four components of empowerment. These are cognitive, psychological, economic and political. Cognitive component means women's understanding of their condition. Psychological component includes the feelings to improve their condition. Economic component implies engagement in productive activities. Political empowerment includes the ability to analyse the surrounding environment in political and social terms.

Kabeer (1999) has defined empowerment as a process (and not as an instrument) by which those who have been denied the ability to make strategic life choices acquire such ability. The first essential element of empowerment is that it goes through a process. The 'Process' involves the progression from one state (gender inequality) to another (gender equality). Jeejeboy (2000) argued that autonomy is a static state (thus measurable by most available indicators) and empowerment changes over time (not so easily measurable). The second element of empowerment is agency, that is, women themselves must be significant actors in the process of change. Thus, hypothetically there could be a significant improvement in the indicators of gender equality, but unless the intervening processes involved women as agents of that change rather than merely as its recipients, it would not be considered as empowerment. This would merely be an improvement in outcomes from one point in time to another. The importance of agency on empowerment emerges from "bottom up" rather than "top down" approaches toward development. At the macro level (institutional), it emphasizes on the importance of participation and "social inclusion". But at the micro level or individual level, it is embedded in the idea of self-efficacy and the significance of the realisation by individual women that they can bring about changes in their own lives. Kabeer (1999) had included another component of empowerment,

Table 1: Dimensions of Empowerment and their Potential Operationalisation in Household, Community and Broader Arenas

Dimensions	Household	Community	Broader Arenas
Economic	Women's control over income; relative contribution to family support; access to and control of family resources	Women's access to employment; ownership of assets and land; access of credit; involvement and representationin local trade associations, access to markets	Women's representation in highly paid jobs; participation in macro-economic policies making
Socio-Cultural	Women's freedom of movement, lack of discrimination against daughters; commitment for educating daughters	Women's visibility in and access to social spaces; access to modern transportation, participation in extra-familiar groups and social networks; shift in patriarchal norms (such as son preference), symbolic representation of the female in myth and rituals.	Women's literacy and access to a broad range of educational options; p ositive media images of women, their roles and contributions
Familial/ Inter-personal	Participation in domestic decision making; control over sexual relationship; ability to make child-bearing decisions, use of contraceptives, access to abortion, control over spouse selection and marriage timing; freedom from domestic violence	Shifts in marriage and kinship systems indicating greater value and autonomy for women (e.g., later marriages, self-selection of spouses, reduction in the practice of dowry; acceptability of divorce); local campaigns against domestic violence	Regional/National trend in timing of marriage, option for divorce; political, legal, religious support for (or lack of active opposition to) such shifts, system providing easy access to contraception, safe abortion, reproductive health services
Legal	Knowledge of legal rights; domestic support for exercising rights	Community mobilisation for rights; campaigns for rights awareness; effective local enforcement of legal rights	Laws supporting women's rights, access to resources and options, advocacy for rights and legislation, use of judicial system to mitigate rights violation
Political	Knowledge of political system and means of access to it domestic support for political engagement; exercising the right to vote	Women's involvement or mobilisation in the local, political, system/campaigns; supports for specific candidates or legislation; representation in local bodies of govt	Women's representation in regional and national bodies of government; representation of women's interests in effective lobbies and interest groups
Psychological	Self-esteem; Self–efficacy; psychological well-being	Collective awareness of injustice, potential of mobilisation	Women's sense of inclusion and entitlement; systematic acceptance of women's entitlement and inclusion

Source: Malhotra, Schuler, and Boender (2002)

'Achievements'. In international policy processes, women empowerment is often equated with specific achievements, like political participation, legal reform and economic security.

Though "resources, agency, and achievements" (Kabeer 2001) are three distinctive ideas at the theoretical level, it is very difficult to completely separate them as empowerment indicators. For example, microcredit programs and employment opportunities are often viewed as resources for women's empowerment. But if a woman seeks to gain access to microcredit, or to get a job, then getting the job or joining the microcredit program might be best characterised as a manifestation of women's agency, and the benefits she draws as a result, like income, discretionary spending, healthcare, etc., may be considered as achievements.

Acharya and Bennett (1981) argued that status is a function of the power attached to a given role and as women play various roles, it is difficult to define the status of women. Mason (1986) showed that the phenomenon of gender inequality is extremely complex, and the nature and extent of the inequality in different settings can vary across different social, economic, familial (and so on) dimensions.

So a comprehensive framework is needed to delineate the various dimensions along which women can be empowered. Malhotra & Schuler (2002) have synthesized and list the most commonly used dimensions (drawing from the framework developed by various authors) of women's empowerment. They have suggested that women empowerment needs to occur along the following dimensions: economic, socio-cultural, familial/interpersonal, legal, political and psychological. Each dimension covers a range of sub-dimensions within which women may be empowered. To operationalise these dimensions, indicators at various levels of social aggregation (e.g. at household, community, regional, national and global levels) need to be considered.

Microfinance and Women Empowerment

There is a mixed opinion on the role of microfinance on poverty alleviation and women empowerment. Advocates of microfinance argue that access to microfinance may contribute to a long-lasting increase in income by means of a rise in investments in Income Generating Activities(IGA) and to a possible diversification of sources of income; it may contribute to an accumulation of assets, consumption smoothing, reduce the vulnerability of illness and disaster. It may contribute to better education, health & hygiene and housing of the borrowers, which lead to the improvement of socio-economic status of women. Hashemi (1996), Littlefield, Morduch, Hashemi (2003), Dunford (2006) showed that access to finance can help to substantially reduce poverty. Many empirical researches showed that women are more reliable and have higher pay-back ratios (Armendariz and Morduck, 2005).

Khandker (2005) in his study found that microfinance reduces poverty by increasing per capita consumption expenditure among microfinance participants. He also found that microfinance borrowing has a positive impact on participants' children's educational and nutritional status. Kabeer (1999) showed that microfinance in Bangladesh had reduced violence against women. Rai and Ravi (2011) have shown that microfinance borrowers (women) make more use of health insurance (in terms of filing claims) than their partners do. Their analysis also showed that women microfinance borrowers make significantly more use of health insurance than non-borrowing women who have obtained the insurance through their husbands – an evidence that access to microfinance may empower women.

Goetz and Gupta (1996), on the other hand, found that in most of the cases women's loans are controlled by men but female borrowers are responsible for repayment, so they have to reduce their basic needs. This leads to an additional burden for women. Scully (2004) argued that microfinance does not reach to the poorest of the poor. Simanowitz (2002) claimed that the poorest are deliberately excluded from microfinance services.

In regard to literature on microfinance it has been observed that most of the studies have been done with an overwhelming emphasis on rural microfinance. In comparison to this, works on urban microfinance have lesser volume. The mobile nature of the urban poor may be responsible for that (Ruthven, 2002). However, impact of microfinance on urban poor women is yet to receive adequate attention. Maringanti (2009) examined how market rationalities found their way through microfinance into food and housing provision of the urban poor and disturbed their social relation that had sustained them traditionally. Banerjee et al. (2009) in their study in Hyderabad showed that there was no formal borrowing before the availability of microfinance in that area. They found mixed results, but on the whole the effect of introducing microfinance appeared to be moderate. Jenna et al. (2008, in their study in Hyderabad) examined the potential of microfinance for low-income households wishing to invest in improved water supply and sanitation services. They found microfinance as an effective strategy of helping poor households to access improve water supply and sanitation services in their home. Some microfinance institutions like Arohan (sKolkata)) studied the outreach, problems and prospect of microfinance. But SJSRY model of microfinance and its impact (on the empowerment of poor women living in Kolkata) has not been discussed thoroughly. This paper tries to fill the gap.

The theoretical framework is that microfinance brings about positive changes in the lives of urban poor women. Group (TCGs/SHGs) meetings provide platforms to exchange and reassess their views, to raise their collective voices against adversities they face in their life. Provision of thrift raises their habit of savings which leads to asset building. Microcredit (whatever small amount it may be) creates opportunities to start up IGAs (Income Generating Activities) which help them to come out of poverty. In this way microfinance brings about empowerment for the urban poor women.

Objectives

The objectives of this paper are:

1. To study the structure and performance of TCGs(SHGs) promoted under the SJSRY scheme in KMC.
2. To study the impact of microfinance programme (TCGs participation) on the poor women living in slum areas in KMC.
3. To identify limitations and find out strategies for the sustainable development of SHGs.

Hypotheses

The following hypotheses are advanced to evaluate empowerment of respondents in KMC:

H1: There is no significant relationship between the age and empowerment of women

H2: Educational status and empowerment are independent

H3: There is no significant relationship between the period of membership with TCGs and empowerment.

Database and Methodology

This paper is mainly based on primary data collected from various slums in KMC area. It is a descriptive study which reflects the role of microfinance on the empowerment of urban poor women as perceived by them.

According to the Status Report on Cumulative Performance of TCGs under SJSRY (2012-13), there are 2017 TCGs in KMC area. According to the official report of State Urban Development Authority (SUDA) the average number of women members in each TCG is 15. So, the total number of TCG member is about 30255. This study involves stratified sampling technique. At first, 40 municipal wards have been selected (10 wards from each direction). Then 10 TCG members from each Neighbourhood Committee (All the TCGs of any ward make one NHC of that ward) were selected. So finally, 400 women were selected from the 141 wards in Kolkata Municipal Corporation (KMC). (The sample constitutes about 1.5%

of the total population (Women members of TCG)). All the women respondents are married and have at least four years of membership. Members of the groups were interviewed with well structured questionnaire schedule. They were interviewed during the time of group meeting. Descriptive statistical analysis like mean, standard deviation and ANOVA tests are applied in this study.

SJSRY

In India, the Swarna Jayanti Sahari Rozgar Yojana (SJSRY) is an important group based poverty alleviation programme targeting urban slum dwellers. The scheme is centrally sponsored and administered by the state governments. It was launched on December 1997. The scheme aims to provide gainful employment to the urban unemployed or underemployed poor by encouraging them to set up self-employment ventures or by providing them wage employment. The scheme also assists groups of urban poor women in setting up gainful self-employment ventures. This sub-scheme was referred to as 'The Scheme for Development of Women and Children in Urban Areas' (DWCUAs). This component is distinguished by the focus on poor women residing in urban slums who set up self-employment ventures not as individuals but as groups. From the year 2006 most of the DWCUA was registered as Neighborhood Groups [(also named as (Thrift and Credit Groups (TCGs)]. All the SHGs or NGs of a particular ward comes under the NHC of that particular ward. About 10-20 women form one NGs or TCGs by members and municipal officers and take up economic activities suited to their skill, training, aptitude and local conditions. TCG's primary objective is employment generation which will lead to women empowerment in every dimension.

NHCs of KMC under SJSRY Program

In Kolkata the TCGs work as Self-Help Groups. The SJSRY model of delivering microfinance is based on the SHG-Bank linkage approach. The linkage is vital for securing timely and adequate microfinance by the SHGs. SHGs have emerged as the most effective mechanism for delivery of micro-finance services to the poor. These groups are informal associations of people who choose to come together to find ways to improve their living conditions. They help to build social capital among the poor, especially women. The most important functions of a SHGs are the following:

i) to encourage and motivate its members to save;
ii) to persuade them to make a collective plan for generation of additional income;
iii) to act as a conduit for formal banking services to reach them.

Such groups work as a collective guarantee system for members who propose to borrow from organised sources. The range of financial services may include products such as thrift, deposits, loans, money transfer and insurance (Ninth Report, GOI:2008).

The SJSRY is based on community empowerment; it does not rely on traditional top down management. The program relies on the establishment and promotion of community organisations and structures to provide supporting and facilitating mechanisms for local development. While the Poverty Eradication Cells of the urban local bodies (ULBs) are primarily responsible for creating community structures, they are assisted in this task by elected councilors. NHGs are formed by 10-20 members belonging to BPL families. The social capital necessary for the success of the scheme is built by first encouraging the women to set up Thrift and Credit Societies/Groups. It was observed that councilors and Officials of the KMC play a major role in such mobilisation. The main activity of TCGs is saving on a monthly basis, and borrowing money from a revolving fund operated by the government. Each member of every TCG saves ₹30 per month and after two months they open an account in nearby nationalised bank. The group itself selects the income-generating activity. Financial assistance is received from two sources, namely revolving fund and commercial loans.

1. Revolving Fund: Allocations out of Revolving Fund to a TCG is ₹2,000 per member, subject to a ceiling of ₹25,000. This amount may be used for purchasing raw materials, marketing, obtaining infrastructural support for income generating or group activities and some other specified activities not related to consumption needs. Each TCG decides on how many members will finally obtain the fund, and their respective shares. Officials of the SUDA make an in-house grading (very similar to NABARD grading) and decides which group will get the revolving fund.

2. Commercial Loans: (From Banks) subsidized by the KMC and SUDA. One year is the time of repayment, out of total interest about 75% of the money are redistributed among the TCG members.

TTo facilitate collective action, SJSRY focuses on formation and capacity building of NHGs for poor women. It is often argued that formation of women SHG/TCS through microfinance programme not only takes care of female unemployment problem, but also acts as an instrument for empowering women. SJSRY scheme provides training programs (implemented by KMC) for women TCGs in enterprise development. Different types of vocational trainings are provided here. They have monthly meetings where the group activities are discussed and operational decisions are made. Taking part in Sales Exhibitions/fairs etc, wage employment (arranged by KMC), survey works, running canteen or Sulav (public toilet), making mid-day meal in schools ,making uniforms for school students are the group economic activities. A part of the surplus is also distributed among the members. In Kolkata, there are 2107 TCGs (have bank linkage) with about 30,000 members and 13 DWCUAs till March 2013 (SUDA Report, 2013). But out of the 2107 TCGs in KMC only 55 TCGs have got revolving fund. The TCG members are allowed to withdraw their savings (of two years, i.e., ₹720) after every three years.

Socio-Economic Profile of the Respondents

According to the age groups of the respondents, the majority of the respondents belong to the age groups of 31-40 years, followed by 41-50 years age group. Educational qualification plays a vital role in the process of women empowerment. Majority of the respondents are illiterate. Only 9% of the respondents have attained secondary level. Most (45%) of the of the respondents joined the Self-Help Groups (TCGs) for the purpose of savings (mainly in the form of thrift), 35% of the respondents joined the group to get loans, rest of them joined the groups to get free vocational training provided by KMC. The loan amount varies from ₹2,000 to ₹10,000. Most of the loan were borrowed to start up or run Income Generating Activities (IGA), while some were used for consumption purpose.

SJSRY Intervention as Microfinance Results

The basic concept of microfinance is to promote thrift among TCG members and help them raise loans to meet small financial necessities. This is the first step. Most of the TCGs made it compulsory to deposit the thrift with the group on monthly basis. In Kolkata, each member of a group saved ₹30 per month. The amount of thrift was uniform among members and all the members paid it regularly. The group itself provided loan to the members. Bank loans were not considered as thrift, but the amount of bank loan sanctioned to any NHG was decided on the basis of thrift of that group. In the sample population, savings of different groups varied between ₹5,000 to ₹30,000.

Microcredit: In the sample population only 30% of the respondents borrowed loans. Of them, about 55% have borrowed to start up IGA (Income Generating Activities). About 20% of the respondents borrowed loan to run their ongoing business. Rest 15% have borrowed loan for consumption purpose (maintenance of dwelling unit, marriages in the family, college admission fees for sons and daughters etc).

Savings: Savings (other than thrift) among the group members was very negligible. In the sample population most of the respondents (75%) did not have any type of savings. Very few respondents (5%) had savings in banks. Rest 20% save their money for children's education (school fees etc).

Table 2: Empowerment of Women

Dimension		Variables	Mean	SD
Economic	1.	Increase in income	3.24	0.76
	2.	Increase in self employment opportunities	3.10	1.05
	3.	Increase in contribution in family income	3.27	1.08
	4.	Increase in access and control of family resources	3.17	1.02
	5.	Reduction of poverty in the family	3.25	0.95
	6.	Ability to meet financial crisis in the family	3.11	0.75
	7.	Increase in bank transaction ability	3.62	0.76
Socio-Cultural	8.	Increase in mobility	4.64	0.89
	9.	Treatments towards daughters	3.25	0.78
	10.	Initiatives towards educating girl child	3.95	0.85
Familial	11.	Active involvement in decision making process in the family	3.52	0.78
	12.	Control over child-bearing decisions	4.12	0.89
	13.	Control over family planning	3.14	0.83
	14.	Reduction of domestic violence	3.5	0.94
Legal	15.	Knowledge about women rights	1.25	1.21
	16.	Family support and encouragement exercising women's rights	1.40	1.34
Political	17.	Ability to cast votes independently	4.13	0.75
Psychological	18.	Respect from every member of the family	3.62	0.78
	19.	Increase in self-esteem	3.68	0.89
	20.	A feeling of social efficacy	3.47	0.64
	21.	Psychological well-being	3.23	0.79

Source: Authors calculation based on primary data

Asset and Expenditure Details: In the sample population, most of the members (55%) spent the lion's share of their income to meet the daily needs. About 45% of them have made assets in the form of small gold jewelry and knitting machine.

Capacity Building: Capacity building programs (Various vocational trainings, workshops, awareness development programs) enabled TCG members to acquire skills and knowledge. In Kolkata Municipal Area 9,530 women had got vocational training [SJSRY (2013)]). In the sample population about 100 women had been trained. Major achievements of forming TCGs (under SJSRY) in economic terms were economic independency through promoting thrift and credit among women, starting self-employment or doing joint IGA (running Sulav toilet, Mid-day meal program, etc).

Impact of Microfinance

The effectiveness of microfinance in terms of empowerment is analysed and the opinions of the respondents is presented in the Table 2. The six dimensions of empowerment tool used here is drawn from the work Malhotra and Schuler (2002). The variables used in this study are borrowed from Das (2012) with some modifications made by the author. All the variables are given equal weight. Here empowerment is measured at household level. The research methodology for analyzing the impact of microfinance has been drawn from the work of

McIntosh et al (2011). The methodology they suggest, allows for creating a retrospective panel database based upon a single survey, using the client base of the microfinance institution involved in the analysis. The simple idea is to ask respondents to think about the major changes they perceived in their life in the past and link these changes to the timing of a treatment such as having access to microfinance loan. This methodology is useful as it does not need expensive and time-consuming multiple cross-sectional surveys. In this study the respondents were asked to think about the changes (in the six dimensions of their lives) they perceive after joining the TCGs. As all the respondents have at least four years of membership, their perceptions reflect the impact of microfinance on their empowerment. Five point Likert Scale is used here. For every variable, there are five response categories ranged from 'very high' to 'very low'. Score '5' is given for 'very high change' and score '1' is given for 'very low change'.

It is observed from the study that microfinance increased income level and the ability to meet financial crisis in the family. Microfinance helped them to undertake income generating activities that generates additional income to the family. This additional income transformed some of the domestic help into self-employed business women (Sari Business). It is further observed that microfinance increased the bank transaction ability.TCG participation resulted in improving decision making ability of women in family-related matters. The following table shows that microfinance has greatest impact on the mobility of women. Most of the women respondents move independently. Their attitudes towards their daughters have been changed a lot. Some of the respondents sent their daughters in computer classes. But their awareness level is not satisfactory. Very few of them have knowledge about women rights. Moreover no such changes have been found regarding family support to exercise their legal rights. Domestic violence has reduced moderately. Their psychological well-being has been increased moderately. Their ability to cast vote independently have increased.

Table 3: Effect of Age on Empowerment

Age	Mean	SD	F statistics	Significance
18-25	3.75	0.67	1.19	0.312
26-30	3.71	0.65		
31-35	3.76	0.68		
36-40	3.89	0.55		
41-45	3.72	0.61		
Above 45	3.67	0.71		

Source: Primary Data

Table 4: Effect of Education on Empowerment

Education	Mean	SD	F	Significance
Illiterate	3.57	.64	6.96	0.000
Primary	3.69	.65		
Secondary	3.83	.56		
Above secondary	3.47	.36		

Source: Primary data (2013)

Table 5: Effect of Membership (TCGs) and Empowerment

Year of Association	Mean	SD	F	SIG
More than 5 years	3.88	.65	11.3	.000
Five years and less	3.64	.62		

Source: Authors calculation based on Primary data

Testing of Hypotheses

Hypothesis 1: There is no significant relationship between the age and empowerment of women.

The following table shows that calculated value of F is higher than the table value at 5%, the null hypothesis is accepted. It means that the age of the respondents and their level of empowerment have no significant relationship.

Hypothesis 2: There is no significant relationship between educational status and level of empowerment.

It is observed that calculated values of F are significant at 1% level, so the null hypothesis is rejected. Level of education has a significant relationship with the level of empowerment.

Hypothesis 3: There is no significant relationship between the period of membership with TCGs and Empowerment.

The following table shows that there is a significant relationship between the period of membership and level of empowerment. The calculated F value is significant at 1% level. That means respondents having more years of association are more empowered than new members.

Challenges to Attain Empowerment of the TCG Members

The study identified the following problems encountered by the poor urban TCG members:

1. Most of the respondents expressed their grievance that they do not get revolving fund. SUDA officials explained that they provide revolving fund only to those TCGs who regularly maintained their accounts. But office bearers of most of the TCGs are inefficient and dishonest in handling the accounts properly. (e.g. One of the group in Park Circus spend ₹5000 for tea and refreshment, which is ridiculous). Lack of education and low level of awareness are prominent in most of the groups.
2. As the ceiling for the revolving fund is ₹25,000 for each group, most of the group members did get the loan. And the members who got the loan, most of them told that the amount is not sufficient. This compels to borrow loans from NBFCs like BANDHAN etc with high rate of interest.
3. As the monthly thrift is only ₹30 for each TCG, most of the TCG had very little group corpus. So most of the commercial bank branches refused them to provide loans (e.g. in Ward 56 & 57 only Sagar Grameen Bank provides financial services to the TCGs).
4. The success of any group mostly depends on their office bearers. Groups which maintained regular connections with both the KMC officials and the local councilors did better. They get all the information regarding fairs, exhibitions and other new policies before it is published in the newspapers and reach local ward office (and get more time for preparing themselves for the event).

5. Marketing of their products is another problem faced by almost all the group. The fairs and exhibitions arranged by Govt. are not sufficient to sustain the group livelihood activity(as most of the fairs are arranged in winters only).
6. As more and more groups are forming, the competitions among these groups are increasing. Livelihood opportunities are decreasing.

Suggestions

The following strategies can be made for the sustainable development of the TCGs, to improve the level of empowerment of poor urban women.

1. The level of education is very low for most of the members. Government and NGOs should take more initiatives in providing free adult education and training for the TCG members.
2. Awareness programs have to be arranged on regular basis. Workshops and other meeting will give them more exposure about the contemporary market and latest schemes.
3. Group meetings have to be arranged seriously and regularly. Attendance has to be must for every member in group meetings.
4. Members have to be more innovative to find out new livelihood avenues.
5. Lack of coordination among the office bearers and ordinary members of TCGs.

Limitations

This study shows only a glimpse of the impact of microfinance on poor women living in KMC. For the convenience of the study respondents were selected from TCGs under SJSRY scheme only. So a large section of poor women (who borrow microcredit from other sources like NBFCs, Cooperatives, NGOs) remains excluded in this study. Moreover the study does not show the variations in outcomes across different economic groups (poor, poorest etc), religious groups. This study deals only with married women. The paper is based on the perception of the respondents through a structured questionnaire and I myself did not seen physically how the women respondents have been benefitted by joining the TCGs.

Conclusion

This detailed study on the women SJSRY groups (TCGs) in Kolkata Municipal Corporation Area highlights the scheme focuses on the formation of women groups, i.e., the inclusion of women in the development discourse. In most of the cases vocational training is provided without the provisions of forward and backward linkages. Serious efforts are absent (from the Government officials) to promote collective enterprises. Members are more interested in having credit, rather than to increase group corpus. Political turmoil has affected the activities of TCGs in many areas. Last it can be said that though the outcomes of microfinance is really micro but its potential is infinite.

NOTES

1. Thrift means compulsory savings

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Socio-Economic Empowerment through Microfinance in Haryana

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Empowerment is the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. Microfinance scarce financial resources for achieving the objective of inclusive growth including poverty alleviation and socio-economic empowerment of the poor.

Abstract

Empowerment is a multi-dimensional socio-economic process that helps people gain control over their own lives. It is the process of enabling people, especially women to acquire and possess power resources to make decisions on their own. To alleviate discrimination, discontent and deprivation, microfinance programs have been promoted as an important strategy for empowerment ever since 1976 when Mohammad Yunus of Bangladesh begun experimenting with microcredit and Self-Help Groups (SHGs). In the present study which has been conducted in four districts of Haryana State, 325 members of the SHGs have been interviewed with the help of a comprehensive schedule. The socio-economic empowerment has been judged by analysing the responses of the beneficiaries. Microfinance has helped in increasing income/savings levels and number of assets which resulted in improvement in quality of life, satisfaction and esteem of the members thus leading to their empowerment. It has also helped in women empowerment and social justice by reducing domestic violence and alcoholism but has not helped in preventing bigamy and remarriage of widows.

Introduction

Microfinance has become one of the most promising ways to use scarce financial resources for achieving the objective of inclusive growth including poverty alleviation

Key Words: Self Help Groups, Domestic Violence, Social justice, Esteem, Quality of life, Good Governance as SMART and SIMPLE administration

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and socio-economic empowerment of the poor. Empowerment is a multi-dimensional social process that helps people gain control over their own lives. It is a process that fosters power (that is, the capacity to implement) in people for use in their own lives, their communities and in their society, by acting on issues that they define as important. Empowerment is the process of enabling people, especially women to acquire and possess power resources to make decisions on their own or resist decisions that are made by others which adversely affect them. Microfinance has become one of the most effective interventions for economic empowerment of the poor.

According to the World Bank, "Empowerment is the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. Central to this process is actions that both build individual and collective assets, and improve the efficiency and fairness of the organizational and institutional context which governs the use of these assets" (World Bank empowerment website).

Objectives of the Study

The main objective of this paper is to analyse the impact of microfinance on the socio-economic empowerment of the rural poor and their self-dependency, taking the care of rural poor in Haryana State.

Review of Literature

To justify the need of the present study, we have undertaken review of the available literature related to the concept of microfinance. Various studies, both quantitative and qualitative have been conducted across the globe to study the impact and effectiveness of microfinance. Many studies are available to investigate the impact assessment and effectiveness of micro credit as a tool of poverty alleviation and socio-economic empowerment of the rural poor. A gist of few studies is given here under:

Das and Shams (2012) investigated whether microfinance participation brought about any changes in livelihoods and found that the grants based approach had positive impacts on microfinance participation of the ultra-poor households. They further found that formation of a socially homogeneous lending group helped the members more actively participate in microfinance. Impact assessment of microfinance participation showed that productive asset holding and per capita income were positively affected.

Ramesh (2004) conducted in Shadnagar Mandal of Mehboob Nagar district (AP) found that access and availability of microcredit through SHGs has not only resulted in higher incomes of women but also developed better leadership skills, awareness regarding health and education, communication skills and improved financial literacy among them.

Purushottam (2004) reported that micro-credit intervention benefited many women entrepreneurs. He observed the benefits of microfinance in terms of women shifting from wages to self-employment, increased income, repayment of old debts, purchase of personnel jewellery, sending of girls to school, etc.

Sachidananda and Kumar (2006), while studying the empowerment of women in their study, found that involvement of people in groups helped in developing awareness and ability for taking action which alternately facilitated in bringing change.

Goel and Goyal (2011) in their study of microfinancing schemes in Haryana, found that younger beneficiaries of microfinancing were enthusiastic to fully utilize the provisions of the various schemes available to them. In spite of the best possible claims of the government to reduce social expenditure on marriages, it is still increasing and there is no provision of loan for this purpose which results in mis-utilization of loan schemes. According to the study, there is a strong case for microfinance for marriages and house building at lower rate of interest and longer repayment period.

Ashe and Parrott (2001) observed in their research Women's Empowerment Project in Nepal that 68% of women experienced an increase in their decision making role in area of family planning, children's marriage, buying and selling property and sending their daughters to school after availing of the microfinance.

Kabeer (2001) in his study of the SEDP in Bangladesh concluded, that empowerment and wellbeing benefits substantially increased when women controlled their loans and used them for their own income generating activities and the standard of members was found to be much higher than the non-members.

Reddy (2002) reported that after the onset of microfinance, women had better access to assets and resources and were able to tackle the issue of injustice and family violence. Thus microfinance had contributed to their empowerment.

Cheston and Kuhn (2002) conducted a study on microfinance institutions in Ghana to examine how and when the women were empowered and found that microfinance institutions had contributed to women's empowerment which helped to increase their self-confidence and esteem. They further found that women's financial contribution helped them earn greater respect from their husbands and children and helped to avoid domestic violence.

Malhotra (2003) noted that economic, political and social resources were critical in ensuring that women were empowered, but these resources could not bring empowerment without women's individual or collective ability to utilize the resources in their own interests.

Nirmala, Bhat and Bhuvaneshwari (2004) studied the empowerment of rural women through SHGs in Pondicherry by examining the changes with certain indicators. They found that due to microfinance there was an increase in income level of women, improvement in access to credit facilities and reduction in workload. Besides this, positive change in status and decision making power of women were also reported by the authors as a reflection of their empowerment.

Basargekar (2009) tried to assess the women empowerment of 348 members from SHGs promoted by four urban NGOs in Maharashtra. The study used decision making ability, self-development, mobility and social status parameters for assessing self-empowerment. The statistical findings of the study revealed that microfinance program had resulted in creation of self-empowerment of women and it varied significantly in positive direction with the years of association and education level. The study also concluded that productive loans were more effective in empowerment than consumption loans.

Hussian, Mukherjee and Datta (2010) examined whether the group based microcredit program had been able to empower women and improve their functional capabilities. The study found that 80% of the respondents had at least some control over their income. The study findings indicated that the microcredit program reduced tolerance of domestic violence and enhanced status of women within the household. They further observed that the failure to challenge the traditional social structure however remained a hurdle to a broader level of empowerment of women.

Kumar (2010), in his study on the impact of microfinance through SHG-Bank linkage program in Orissa, observed that microfinance program had considerably increased the income of the members. The study found that though the decision making power of the women members had improved, the impacts were not substantial and thus needed immediate intervention for sustainability of the program.

Meenu, and Arora (2011) in her empirical study tried to analyse the role of microfinance in promoting women empowerment in rural Punjab. The study found that microfinance had been effectively contributing in empowerment of rural women in terms of increase in their status and say in family decisions.

Jain and Jain (2012) conducted an empirical study in Udaipur district of Rajasthan and came to the conclusion that there was a significant increase in women empowerment of the group members. The study found that microfinance program enabled the women to come to the forefront of the society.

Gebrehiwot and Bhardwaj (2012) in their study aimed to assess the impact of microfinance on socio-economic empowerment of women in Nainital district of Uttrakhand and found the program improved the socio-economic empowerment of women. Participation in the SHG activities helped in reduction in domestic violence, increased their income and savings and enhanced their skill and capacity.

Alikhan and Noreen (2012) tried to explore the socio-economic determinants of women empowerment by focusing on the women who have availed the micro-credit. They concluded that female using loans themselves have better effects on empowerment as compared to the loans utilized by other members of the household. It was also found that microfinance had shown positive effect on women but not as much as was expected.

The review of literature provides an insight into both positive and negative aspects of the microfinance program. Most of the studies revealed that microfinance had a significant positive impact on reducing poverty, generating more employment opportunities, improvement in the living standard, reducing gender inequality and improving status of women, whereas a few studies contradict the success of microfinance program, particularly regarding the unchanged level of poverty, ineffective reach to the poorest among the poor, lower amount of bank loans, unproductive use of group loans and non-targeting of the program.

Methodology and Sample Design

The study has been conducted in Haryana state. It has been conducted in the areas which are primarily reliant on agriculture and animal husbandry. The state has been divided into two major climatic zones, namely, Eastern Zone and Western Zone. This classification is based on topography, crops and cropping pattern, soil type, rainfall, etc. Two districts from each of the agro climatic zones have been selected randomly for the present study. Kurukshetra and Kaithal districts have been selected from the Eastern zone, whereas Hissar and Fatehabad have been selected from the Western Zone.

The multi stage stratified sampling method has been used for selection of the blocks, villages and ultimate sample of the Self-Help Groups (SHGs). At least two blocks from each of the four districts have been selected and the total number of blocks selected is eight. A total number of 20 villages have been selected for the study selecting at least two villages per block. Three to six SHGs per village and five to ten members from a SHGs have been selected for the ultimate sample of the study. These SHGs which were three or more years old and well established in savings and credit operations, have been selected assuming that the benefits from the SHG bank linkage program have more or less stabilized. Thus the ultimate study sample consists of 56 SHGs and 325 members from these SHGs selected from 20 villages from eight blocks of four districts of Haryana state.

Progress of Microfinance in Haryana

Haryana is one of the small states of India out of the total 29 states. It came into existence on 1st November, 1966 as a result of bifurcation of the Punjab state. At present the state consists of 21 districts. In comparison to the other states of the country, the penetration of microfinance in the state is very less perhaps due to the fact that it is considered to be one of the developed states of India. The relative position of Microfinance in Haryana as on March 31, 2012 is given in Table 1.

Table 1: Relative Position of Microfinance in Haryana as on March 31, 2012 (Amount in Rs. Crore)

Particulars	Number of SHG	Savings	Loan disbursed	Outstanding Bank Loans against SHG
India	7960349	6551.41	16534.77	36340.00
Haryana	44184	36.78	87.70	205.75
Share of Haryana (%)	0.56	0.56	0.53	0.57

Source: Status of Microfinance 2012, NABARD.

It is clear from the table that the share of microfinance in Haryana is not even one percent of the country in respect of number of SHGs, savings, loans disbursed and outstanding loan amount. Comparative position of agency-wise participation in SHG-Bank Linkage Program in Haryana is given in Table 2 and Figure 1.

In Haryana, RRBs are playing a major role in disbursement of credit to SHGs. Out of the total groups in Haryana, 53% of the SHGs are with RRBs and covered 45% of credit disbursed in the state. Commercial banks have less important role in the state as compared to the country's percentage. Cooperative banks have

Table 2: Agency wise participation in SHG-Bank Linkage Program as on March 31, 2012

Banks	Haryana				India			
	No. of SHGs	%	Bank Loan (Rs. Cr.)	%	No. of SHGs	%	Bank Loan (Rs. Cr.)	%
Commercial Banks	1682	44	32.48	52	6,00,807	62	9,942.04	60
Regional Rural Banks	2056	53	27.60	45	3,04,809	27	5,026.05	30
Cooperative Banks	127	3	1.87	3	2,42,262	21	1,566.67	10
Total	3865	100	61.95	100	1147878	100	16,534.77	100

Source: Status of Microfinance 2012, NABARD.

Figure 1: Agencywise participation in SHG-Bank Linkage Program (Haryana)

Table 3: Physical Progress of SHG-Bank Linkage under SGSY in Haryana as on March 31, 2012 (Since inception of the scheme on 1-4-99)

District	No. of SHGs formed	Passed Grade I	Passed Grade II	No. of SHG that have taken up Eco. Activities	No. of Women SHGs formed	No. of Women SHGs taken up Economic Activities
Ambala	1397	1079	762	583	783	417
Bhiwani	1186	943	874	874	591	729
Faridabad	463	336	242	194	444	194
Fatehabad	1031	1033	808	780	906	780
Gurgaon	635	411	227	225	396	158
Hisar	1633	1396	1215	1140	1016	882
Jhajhar	557	383	362	362	352	311
Jind	1972	1849	1511	1416	1141	942
Kaithal	2047	1733	1088	1088	1230	544
Karnal	1909	1668	1361	1361	945	675
Kurukshetra	1707	1366	939	939	958	605
M/garh	1152	938	578	563	672	386
Mewat	1035	707	490	350	685	349
Palwal	425	352	398	225	342	203
Panchkula	652	493	353	353	490	306
Panipat	880	761	585	546	532	513
Rewari	1717	1227	775	739	1581	699
Rohtak	1127	816	552	516	749	417
Sirsa	1567	1387	713	635	1342	516
Sonipat	1599	1099	875	875	393	249
Y/nagar	1444	1225	912	936	561	601
Total	26135	21202	15620	14700	16109	10476

Source: Compiled from Monthly Progress Reports of SGSY, Haryana.

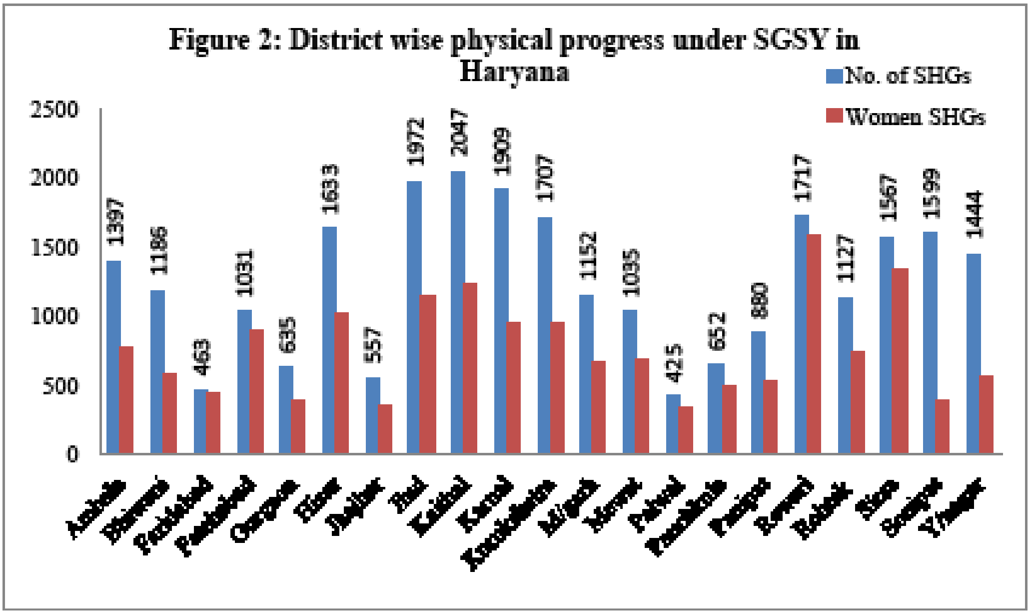

Figure 2: District wise physical progress under SGSY in Haryana

played a very negligible role in the state as compared to the country's percentage (See Figure 1).

Swaranjayanti Gram Swarozgar Yojna (SGSY) was launched in Haryana on April 1, 1999 as the main microfinance program. Progress of SHG-Bank Linkage program under SGSY in Haryana is depicted in Table 3 and Figure 2.

As many as 26,135 SHGs are formed in Haryana as on March 31, 2012, of which 21202 have been passed in Grade I and 15,620 in Grade II. The number of SHGs which have taken up economic activities are 14700. Out of the total SHGs, 16,109 are women SHGs which works out to 62%. Kaithal district with 2,047 has formed maximum whereas Palwal with 425 SHGs has formed minimum in the state.

An amount of Rs 8,770.28 lakh has been disbursed in the state against the target of Rs 7,130 lakh which works out to 123%. The credit disbursed to the SC and women is at 55% and 93%t respectively which shows that women are the main beneficiaries under the scheme. Per family investment comes out to be Rs 45,614 (Table 4).

Table 4: Credit Disbursed to SHGs under SGSY in Haryana as on March 31, 2012

S.No.	Particulars		Amount
1	Credit disbursed	Rs	8770.28 lakh
2	Subsidy	Rs	2396.43 lakh
3	Total investment	Rs	11166.71 lakh
4	SC	Rs	4831.40 lakh
5	Women	Rs	7277.19 lakh
6	Minorities	Rs	918.84 lakh
7	Disabled	Rs	111.90 lakh
8	Subsidy to credit ratio		3.66
9	Per family Investment	Rs	45614 lakh

Source: Compiled from Monthly Progress Reports of SGSY, Haryana.

Table 5: Socio-Economic Profile of the Sample Beneficiaries

S.No.	Factors	Category	Frequency (N-325)	Percentage (%)
1	Age	20-30 (years)	83	26
		31-40	147	45
		41-50	69	21
		51-60	19	6
		More than 60	7	2
2	Gender	Male	53	16
		Female	272	84
3	Marital Status	Married	313	96
		Unmarried	–	–
		Widow	12	4
		Divorced	–	–
4	Caste	SC	189	58
		ST	–	–
		BC	120	37
		General	16	5
5	Religion	Hindu	271	84
		Muslim	7	2
		Sikh	46	14
		Others	1	–
6	Occupation	Agriculture	–	–
		Allied Activity	177	55
		Casual Labour/ Agriculture Labour	–	–
		Business/ Manufacturing	148	45
7	Education Level	Illiterate	204	63
		Primary	96	30
		Metric	25	7
		Graduate	–	–
		Post Graduate	–	–
8	Family Type	Nuclear	234	72
		Joint	91	28
9	Economic Group	BPL	304	94
		APL	21	6

Source: Compiled from Primary Data.

Data Analysis and Main Findings

The success of any development program lies in its ability to bring desired transformation in the lives and livelihoods of the target groups it aims to benefit. In the present study an attempt has been made to analyse the socio-economic impact of Microfinance on empowerment of rural poor in Haryana state. To analyse the 'socio-economic' impact, study of those social factors is necessary to be undertaken which are having economic implications.

It is revealed from the Table 5 that in the survey sample maximum number of members (45%) are in the age group of 31-40, 272 (84%) are women members, 189 (58%) belong to scheduled caste, 271 (84%) are Hindu, 177 (55%) are engaged in the allied activities, 204 (63%) are illiterate, 234 (72%) are from nuclear families and 304 (94%) are from BPL families.

In view of the importance of SHGs in rural microfinance and financial inclusion, it becomes necessary to ascertain the impact of the SHG program on the borrower-members of the SHGs. Table 6 presents position in respect of some of the socio-economic determinants before and after joining of SHG.

Table 6: Economic variables before and after joining the SHG

S.No.	Economic variables	Category	Before joining (N-325)	After joining (N-325)
1	Amount of loan taken	Up to 10000	140(73.7)	30(9.4)
		10001-20000	39(20.5)	135(42.2)
		20001-30000	06(3.2)	65(20.3)
		Above 30000	05(2.6)	90 (28.1)
2	Assets Owned	Land	13(4)	14(4.3)
		Domestic animals	117(36)	258(79.4)
		Type of house-		
		i) Kutcha	206(63.4)	97(29.8)
		ii) Semi-Pucca	65(20)	80(24.6)
		iii) Pucca	52(16.0)	145(44.6)
		Household goods	80(24.6)	145(44.6)
		Any Other	–	03(0.9)
3	Annual Income	Below 20000	252(77.5)	121(37.2)
		20001-40000	64(19.7)	175(53.8)
		40001-60000	07(2.2)	13(4.0)
		Above 60000	–	10(3.1)
4	Annual Savings	Below 10000	161(49.5)	255(78.5)
		10001-20000	04(1.2)	48(14.8)
		20001-40000	–	03(0.9)
		Above 40000	–	–

Note: *Figures in parenthesis are percentages.
Source: Compiled from Primary Data.

It is revealed from Table 6 that after joining a SHG, the amount of loan taken has increased considerably as number of loan takers has increased and the members have moved to the higher category of loan amount which means more investment in the economic activity undertaken. The number of assets owned has also increased in case of domestic animals and household goods whereas land remains almost the same. Out of the increased income, the beneficiaries have invested in housing as number of members living in Katcha house has reduced from 206 (63.4%) to 97 (29.8%) and number of members living in Pucca house has increased from 52 (16.0%) to 145 (44.6%). The level of annual income has also increased as less members are now having income below Rs. 20,000 as it reduced from 252 (77.5%) to 121 (37.2%). As many are 131 members moved to the income level more than Rs. 20,000, 6 out of them to more than 40,000 per annum and 10 to even above Rs. 60,000. Annual savings has ~~also increased considerably as 255~~ (78.5%) of the members are now able to save as compared to 161 (49.5%) before joining the group. 48 (14.8%) members are now able to save between Rs.10001-20000 annually as compared to 4 (1.2%) before joining SHG. Three members are now even able to save more than Rs. 20,000 annually, whereas none member was under in this category before joining the SHG.

The empowerment of and social justice for the women can be judged by analyzing the response of the women beneficiaries to the questions asked in the interview schedule. Out of 272 women beneficiaries, 249 (92%) have admitted that microfinance have resulted in their empowerment. About 51 (19%) women were elected to village panchayat, 167 (61%) have admitted that there is a increase in their role in governance of the village, 199 (73%) felt increasing role in community decisions and actions, and 35 (13%) are now have role in delivery and maintenance of services (such as schools, healthcare, roads, veterinary care, pulse polio, literacy, anti-dowry etc.)

Out of 272 women beneficiaries, 262 (96%) have admitted that microfinance has resulted in social justice for them. And 233 (86%) feels that it helped in ending domestic violence but very few felt that it helped in preventing bigamy and remarriage of widows. Moreover 118 (43%) felt that microfinance has also helped in anti-alcoholism in the village.

Description of the Determinants of Socio-economic Impact

For the purpose of the socio-economic impact analysis of microfinance, the following determinants have been prepared from the Interview Schedule on

Table 7: Description of determinants for Impact Assessment

Sr. No.	Name of Determinant	Description
1	SATISFN	Satisfaction from the scheme - Fully, Fairly, Partially
2	OBMICR	Achievement of Objectives of Microfinance – Get rid of money lender, Fulfillment of immediate credit needs, Repayment of old debt, Increase in social status, Helped in income generation/employment
3	QLIFE	Qualitative change after utilization of loan in – Food, clothing, education, health, recreation, festival, maintenance of house, marriage
4	ASTIMPCT	Assets after availing microfinance – Land, domestic animals, type of house, household goods, any other
5	ESTEEM	Confidence level, Quality of life – leadership quality, self-decision making, brotherhood, development through participation, self-reliance and increase in social status
6	WEMP	Empowerment of women – Elected to village panchayat, Role in governance of village, Role in community decision and actions, Role in delivery and maintenance of services and Social justice for women -Helped in Ending domestic violence, Preventing bigamy, Marriage of girls/ remarriage of widows, Anti-alcoholism
7	IMPACT	SATISFN + OBMICR + QLIFE + ASTIMPCT + ESTEEM + WEMP

Source: Prepared from the Interview Schedule.

the basis of the responses of the beneficiaries of the microfinance to different questions as given in Table 7.

A correlation matrix of overall Satisfaction with the scheme (SATISFN), Degree of achievement of objectives of microfinance (OBMICR), Quality of Life Index (QLIFE), Impact on asset creation (ASTIMPCT), Level of self-esteem (ESTEEM), Women empowerment and social justice (WEMP), Overall Impact (IMPACT), Age of the members (AGE), Age of the group (GRAGE), Number of members in the group (NUMBER), Education level (EDU), Size of the family (FSIZE) and Amount of bank loan (BANKLN) has been prepared. The results are given in the Table 8.

Table 8: Pearson's Correlation Matrix

	SATISFN	OBMICR	QLIFE	ASTIMPCT	ESTEEM	WEMP	IMPACT
SATISFN	1.0000	0.0830	0.2535*	0.0684	0.1835	0.0517	0.3452**
OBMICR	0.1371	1.0000	0.2259*	-0.1793	0.2641*	0.0904	0.3385**
QLIFE	0.0000	0.0000	1.0000	0.3277**	0.1789	-0.0752	0.5453**
ASTIMPCT	0.2212	0.0012	0.0000	1.0000	-0.0653	-0.1200	0.5216**
ESTEEM	0.0009	0.0000	0.0012	0.2405	1.0000	-0.0104	0.3095**
WEMP	0.3547	0.1038	0.1764	0.0306	0.8518	1.0000	0.5676**
IMPACT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

Notes: 1. *, ** show the level of significance at 5% and 1% respectively.
2. The lower left part of the matrix shows significance (2-tail test) and upper right part shows the correlations.

Source: Calculated from Primary Data.

There has been a moderate, positive and significant correlation between quality of Life (QLIFE) and number of assets (ASTIMPCT) after availing microfinance. Overall impact (IMPACT) has also moderately, positively and significantly correlated with overall satisfaction with the scheme (SATISFN), degree of achievement of objectives (OBMICR), quality of Life (QLIFE), number of assets (ASTIMPCT) , confidence level (ESTEEM) and women empowerment (WEMP). The quality of life (QLIFE) has been found significantly and positively correlated with overall satisfaction with the scheme (SATISFN) and degree of achievement of objectives (OBMICR) with low correlation. The low, positive and significant correlation between degree of achievement of objectives and confidence level (ESTEEM) has also been found.

The impact on asset creation (ASTIMPCT) has not been found to be related with any of the variables except quality of life (QLIFE). However this variable has been designed in such a way that for an individual member its maximum score can go up to six if a respondent has benefited in all asset categories taken in our study. The average score in our study is found to be 1.44 which implies that, on an average, in twenty five percent of assets, all members have been benefited.

It has also been tested that whether the incomes and savings of the members has increased after joining the SHG. A paired sample t-test has been conducted and the results are given in Table 9.

As stated in Table 9, income of the members has increased significantly after availing microfinance, however there has not been a significant increase in the savings of the members after availing microfinance, which implies more increase in consumption and the living standards.

Table 9: Impact on Income and Saving after Joining SHG

		Mean	Difference of Means	t-value
Pair-1	INCJOIN	1.1707	-0.5854	-8.724
	INCLOAN	1.7561		
Pair-2	INCSAV	1.0435	0.0217	0.573
	SAVJOIN	1.0217		

Notes: INCJOIN – Income at joining the group, INCLOAN – Income after taking loan, INCSAV- Increase in savings, SAVJOIN – Saving at joining the group
Source: Calculated from Primary Data

Conclusion and Policy Implications

From the above analysis it is clear that microfinance has a positive impact on the socio-economic life of the women members of the SHGs in the form of increase in income and savings. As thus resulted in an increase in expenditure on food, clothing, health and education, it helped to improving standard of living and socio-economic empowerment of poor in Haryana. More than 85% groups formed have undertaken economic activities and 63% of assisted families have crossed the poverty line. It has helped in getting rid of money lenders, as it has helped in fulfilling immediate credit needs of the rural masses.

More than 60% groups formed in the state belong to the women. Microfinance had also improved the social status of rural women and increased their confidence which resulted in their empowerment. It has also resulted in social justice and helped in reducing domestic violence. Women themselves sell their product in the market which has made them entrepreneurs as they take their decisions themselves. It has further been observed from the study that delivery of microcredit to the poor is more effective and less costly in the organized form of SHGs. Some of the policy implications flowing from the study are appended below:

1. It is found that average number of women members in a SHG was 10 to 12 in majority of the groups, whereas the ideal number is found to be 5. Members believed that small groups are easy to handle and help in better understanding among the members. At least one member in the group should be from middle class family who knows systems and procedures better. It will help in more effective organization of the group. This fact has also been advocated by Mohammad Yunus while explaining the experiences of microfinance in Bangladesh.
2. The major portion of the funds allocated for the scheme has been spent on subsidy. Instead of providing subsidies, loans at zero rate of interest should be provided to the beneficiaries.
3. To make micro financing a success story we should switch over to the "Islamic Banking Model" which emphasis on zero percent rate of interest.

Instead of disbursing crores of rupees in subsidies to the beneficiaries of the microfinance the government should compensate the financing institutions with this subsidy amount so that they can provide loans at zero percent rate of interest. This will reduce the risk of mis-utilization of loan and will subsequently help reduce non performing assets in the banks.

4. Insurance products should also be subsidized for the SHG members as a welfare measure by the government. It would be ideal for poor segments of the rural population who cannot invest in multiple insurance policies. There is a serious need to introduce micro insurance products and bring together various players in the insurance sector for supporting pilots for development of composite insurance products which cater for life, health, crops, assets and accidents.
5. The change in approach in micro financing from is 'target orientation' in terms of expenditure allocated which requires 'result orientation'. There is a scope of monitoring and evaluation by academicians rather than professionals and officials to make it unbiased.

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Impact of SHG Programme in Rural Households: A Micro Level Study in Odisha

- Alok Ranjan Behera*

SHG is a homogeneous group of people, voluntarily governed, saving whatever they can conveniently save out of their earnings and with a mutual agreement to contribute to a common fund to lend to members for meeting their productive, emergency and consumptive needs. The impact of SHG programme is more important due to its significant influence on income, expenditure and saving practice of the beneficiaries.

Abstract

The objectives of the paper are to study the impact of Self-Help Groups (SHGs) programmes on income and household expenditures of SHG members in Jagatsinghpur districts of Odisha, India. Further, it is a comparative study between the More Developed Block (MDB) and Less Developed Block (LDB) of the district. It is also a comparative study between the promoting institutions NGO and Government Agency within the block. Average monthly income of the beneficiaries in MDB is more than the LDB, before and after joining SHGs. Between the promoting institutions, the beneficiaries of the government promoting institutions better than that of NGOs. Z-test result shows that SHG participation has significant influence on household income. In case of consumption expenditure, average monthly consumption expenditure also increased after participation in both the blocks. But between the promoting agencies, in MDB the average monthly expenditure under NGO is found lower than those under government agencies, which is contradictory in case of LDB. Z-test result also shows that observed difference in expenditure is statistically significant between periods in both the blocks.

Introduction

Alleviation of poverty, the core of all developmental efforts, has remained a very complex and critical concern in developing countries. The Indian experience shows that in spite of poverty alleviation being a priority area

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Key Words: SHGs, Micro Credit, MDB, LDB

and an integral part of Indian planning, poverty continues to persist in a big way. Credit being considered as an important instrument in the attempt to eradicate poverty, a number of credit linked programmes have been taken up in the country in different five year plans. However, the direct credit programmes have proved to be ineffective in achieving the desired goals of rural transformation and empowering the poor. Apart from this, the scanty supply of formal credit in one hand and the exploitative nature of the informal credit provider on the other hand demanded an alternative to bridge the gap. Thus emerged the Micro Credit system through Self-Help Groups (SHGs) at the village level, based on an underlying strategy of self-help, collective perception, decision making and implementation of programmes of common benefit.

SHG is a homogeneous group of people, voluntarily governed, saving whatever they can conveniently save out of their earnings and with a mutual agreement to contribute to a common fund to lend to members for meeting their productive, emergency and consumptive needs. It is an association of people belonging to a similar socio-economic background and residing in the same locality, a micro co-operative, where members help one another. Majority of the members of an SHG may be drawn from the poor income strata where the activities of the group are wide. It has been realized that lending to an SHG offers unique opportunities, since the recovery rate is between 90 and 100 percent. The SHG-Bank linkage programme in India is one of the largest programmes of its kind in the world (Krishna, 2006). The impact of SHG programme is the more important due to its significant influence on income, expenditure and saving practice, of the beneficiaries.

Rationale and Motivations

SHGs can play a crucial role in increasing income, improving the standard of living and status of the group members in society (Pillai and Harikumar, 2006). SHGs can be created more in rural areas where disparity persists with uncompromising tenacity and among the disadvantaged communities (Soundari, 2008). It is one of the significant programmes through which the empowerment of women is achieved (Haridoss and Fredrick, 2008). The various SHG promoting institutions motivate and educate the members and encourage them to channelize micro-credit towards income generating and more productive usage (Henriques and Gaonkar, 2011). SHGs contributed significantly to the development of women entrepreneurs and also for overall development of the economy (Mahesha and Akash, 2011). They proved beyond doubt that they are the fastest growing and most effective micro financial initiative for improving members' capacity and helping women attain income security in the Indian context (Ramlingam and

Dharmaraj, 2008). The present study takes into account two items -level of income and consumption expenditure among the beneficiary households of MDB and LDB in a pre and post SHG criterion.

Objectives

- To study the impact of SHGs programme on the volume of income of the beneficiaries.
- To study the impact of SHGs programme on the level of expenditure of the beneficiaries.

Hypothesis

The hypotheses of the study are: (i) Credit had significantly influenced increase in income levels among the beneficiaries of SHGs in both MDB and LDB. (ii) It had a positive impact on the level and pattern of consumption spending among the beneficiaries of SHGs in both MDB and LDB.

Methodology

In this study, Jagatsinghpur district of Orissa which is one of the developed districts of the state, has been taken as the study area (Purposive sampling). The district has a mixed rural-urban population.

The SHG programme in Jagatsinghpur district is implemented both by the government and NGOs. The NGOs took up the SHG programme in the district after the super cyclone of 1999. Around 48 NGOs were associated with formation and linkage of SHGs. As per the latest available data, about 2000 SHGs are working under the NGOs in the district. Apart from this, Government of Orissa launched their SHG programme in 2001. As in 2008 there were 2 lakh state sponsored SHGs operating in the district.

The Survey

A multi-stage sampling procedure was followed to select samples for the study. The first stage was selection of the district. Jagatsinghpur district was deliberately selected as the scholar was familiar with the area, which would help in efficient data collecting.

In the second stage, the blocks of the district were classified into two categories i.e. More Developed Block (MDB) and Less Developed Block (LDB) on the basis of literacy, availability of banking services and formation of SHGs (District Statistical Handbook). Four blocks fell in the first category and four blocks in the second. From these one block from each category was chosen at random. Thus, Jagatsinghpur block from the first category and Naugaon block from the second category were selected for the study.

In the third stage of sampling, 5% of SHGs were selected from the sample blocks separately. Accordingly, 20 SHG from LDB and 38 from MDB were selected separately by using simple random sampling procedure.

In the final stage, 5 members from each sample SHG were randomly selected for the survey. Thus a total 290 SHG members, 190 from MDB and 100 from LDB, were interviewed for the study.

Tools and Data Collection

A systematic structured questionnaire was used for eliciting information from SHGs members. Z-test was used to study differences in income and expenditure of the sample households before and after joining SHGs in MDB and LDB.

Results and Discussions

The data collected from different villages of two blocks (i.e., Jagatsinghpur and Naugaon) of Jagatsinghpur district is analysed both in tabular form and using the statistical method in following:

Impact of SHGs on income of the Beneficiaries

Increasing the level of income is the basic objective of SHG-Banking programme as it provides a basic wherewithal to the poor. It is the economic empowerment of the rural poor. Through the formation of SHG, additional economic activities are created which result in raising the level of income of its members. There is also a positive impact on the socioeconomic condition of women in the community. Table 1 presents data in this respect. To measure the impact of the SHG programme, the level of income of the SHG members of the study area before and after they became members of SHGs have been worked out.

Table 1: Average Monthly Income of Beneficiaries Before and After Joining SHGs

(Figures in Rs.)

Blocks	Before			After		
	NGO	Govt. Agency	Pooled	NGO	Govt. Agency	Pooled
MDB	985	468	738	2155	2479	2328
LDB	797	406	523	2063	2051	2055

It is seen from the above that in case of MDB and LDB, the average income of the members increased after their association with SHGs under both promoting agencies. Across the blocks it was found that the monthly average income which was ₹738 in case of MDB and ₹523 in case of LDB before their association with SHGs had gone up to ₹2328 and ₹2055 respectively. The increase in monthly income in case of MDB came to ₹1591 and that of LDB ₹1532. Within the Block the monthly average income was ₹985 and ₹468 under NGO and Government agency respectively before their association with SHGs in MDB. But after their association with SHGs, the monthly average income increased to ₹2155 and ₹2479 under NGO and Government agency respectively in MDB. In case of LDB, the monthly average income which was ₹797 and ₹406 under NGO and Government agency respectively before association with SHGs, increased to ₹2063 and ₹2051 respectively after their association with SHGs.

Z-test for the Difference in Income across the Blocks (Before & After)

An attempt was made to examine whether the observed difference in income is statistically significant across the Blocks. For the purpose, Z-test was used. Table 2 presents these details:

Table 2 reveals that the calculated value of 'Z' is greater than the table value at 5% level of Significant. Thus the null hypothesis is rejected. It implies the observed difference in income is statistically significant. Thus there is difference on the average income earned by the benefiaries in both the Blocks before and after their participation in SHGs.

Table 2: Z-test on Monthly Income Differences Across Blocks (Before & After)

Characteristics	Value Before	Value After
X	737.50	2328.68
Y	523.00	2055.00
n1	190	190
n2	100	100
S.Dx	1170.69	1305.46
S.DY	630.03	911.58
Calculated value of 'Z'	2.03	2.08
Table value of 'Z' at 5% level of significance	±1.96	±1.96
Null Hypothesis	Rejected	Rejected

Where,
X = Average income of beneficiaries in MDB.
Y = Average income of beneficiaries in LDB.
n1 = Number of Beneficiaries in MDB.
n2 = Number of Beneficiaries in LDB
S.Dx = Standard Deviation of Income in MDB
S.DY = Standard Deviation of Income in LDB
Null Hypothesis: There is no significant difference in the average income between MDB and LDB before and after the SHG participation.

Z-test on Monthly Income Differences both in MDB and LDB (Before & After)

The Z- test was also used to examine whether the observed difference in income is statistically significant or not in both the blocks, before and after their participation in SHGs.

Table 3 reveals that the calculated value of 'Z' is greater than the table value at 5% level of Significant. Thus the null hypothesis is

Table 3: Z-test on Monthly Income Differences both in MDB and LDB (Before & After)

Characteristics	Value in MDB	Value in LDB
X1	2328.68	2055.00
X2	737.50	523.00
nx1	190	100
nx2	190	100
S.Dx1	1305.46	911.58
S.Dx2	1170.69	630.03
Calculated value of Z	12.51	13.83
Table value of Z at 5% level of significance	±1.96	±1.96
Null Hypotheses	Rejected	Rejected

X1= Average income of beneficiaries both in MDB and LDB after their participation.
X2= Average income of beneficiaries both in MDB and LDB before their participation.
nx1 & nx2=Number of Beneficiaries both in MDB and LDB.
S.Dx1= Standard Deviation of Income both in MDB and LDB after the participation of the beneficiaries.
S.Dx2= Standard Deviation of Income both in MDB and LDB before the participation of the beneficiaries.
Null Hypothesis: There is no significance difference in the average income both in MDB and LDB before and after the SHGs participation.
Alternative Hypothesis: Average income of the beneficiaries both in MDB and LDB is greater after their participation in SHGs. (Right tailed test)

rejected. It implies the observed difference in income is statistically highly significant. Thus average income of the beneficiaries in both MDB and LDB has significantly increased after their participation in SHGs.

Impact on Expenditure of Beneficiaries in MDB

As stated before, the SHG-Bank linkage programme generates employment and income opportunities through different activities. As a result the level and pattern of consumption of beneficiaries is expected to improve. When the income of a consumer increases, her consumption also increases. In case of the poor, the marginal propensity to consume being higher, the increase in income results in higher consumption. Tables 5 and 6 show the changes in the level and pattern of monthly consumption spending of the beneficiary households of MDB and LDB before and after criteria.

Observation reveals that across the Block the average expenditure before becoming member of SHGs was ₹2115 and ₹1547 in case of MDB and LDB respectively. Item wise, the average expenditure before SHG membership was ₹1038 on food, ₹151 on clothing, ₹74 on housing, ₹116 on education, ₹121 on medicine, ₹555 on durable products and ₹59 on others in MDB. In case of LDB the average monthly expenditure was ₹834 on food, ₹131 on clothing, ₹61 on housing, ₹92 on educational expenditure, ₹99 on medicine, ₹299 on durable products and ₹31 on others.

After participation in SHGs the average expenditure increased to ₹1299 on food, ₹200 on clothing, ₹110 on housing, ₹176 on education, ₹183 on medicine, ₹862 on durable products and ₹98 on others in MDB. In case of LDB the average monthly expenditure after participation in SHGs increased to ₹1275 on food, ₹234 on clothes, ₹127 on housing, ₹138 on education, ₹88 on medicine, ₹94 on durable products and ₹66 on others. Taken as a whole, the average increase in consumption expenditure came to ₹2928 for MDB and ₹2021 for LDB.

On analysis of the Block data, it was found that in case of MDB, the average consumption expenditure before and after participation in SHG went up from

Table 4: Average Monthly Expenditure of Sample Households in MDB

Sl.No	Name of the Items	Before			After		
		NGO	Govt. Agency	Pooled	NGO	Govt. Agency	Pooled
1	Food	932	1159	1038	1177	1435	1299
2	Cloth	163	138	151	220	178	200
3	Housing Expenditure	70	77	74	111	110	110
4	Educational Expenditure	116	116	116	176	177	176
5	Medicine	113	130	121	181	188	183
6	Durable Products	487	630	555	776	956	862
7	Others	33	87	59	62	139	98
	Total	1915	2336	2115	2720	3177	2927.80

₹2115 to ₹2928. Under NGO promotion the average expenditure which was ₹1915 before participation increased to ₹2720 after participation. Likewise, under Government Agency average expenditure went up from ₹2336 to ₹3177. Thus increase in average monthly consumption expenditure under NGO sponsored SHGs was found to be lower than the increase in Government sponsored groups.

Impact on Expenditure of the Beneficiaries in LDB

Table 5 presents data on the average monthly expenditure of sample households on different items before and after participation in SHGs in LDB.

Table 5: Average Monthly Consumption Expenditure of Sample Households in LDB

Sl. No	Name of the Items	Before			After		
		NGO	Govt. Agency	Pooled	NGO	Govt. Agency	Pooled
1	Food Item	863.33	821.43	834.00	1286.66	1270.00	1275.00
2	Cloth	150.00	122.14	130.50	224.33	238.14	234.00
3	Housing Expenditure	86.00	50.86	61.40	180.66	104.57	127.40
4	Educational Expenditure	118.33	809.71	92.00	108.33	150.57	137.90
5	Medicine	130.33	85.86	99.20	82.33	89.86	87.60
10	Durable Products	266.00	313.57	299.30	82.67	98.71	93.90
12	Others	38.33	27.14	30.50	63.33	66.42	65.50
	Total	1652.33	1501.71	1546.90	2028.33	2018.29	2021.30

It was observed that in case of LDB, the average consumption expenditure before and after participation in SHG went up from ₹1546.9 to ₹2021.3. Under NGO promotion the average expenditure which was ₹1652.3 before participation increased to ₹2028.3 after participation. Under Government Agency which was ₹1501.7 before the participation has gone up to ₹2018.29 after their participation. Here also, the increase in average monthly consumption expenditure of NGO SHGs was lower than government sponsored groups, although the total expenditure of NGO SHGs was higher.

Consumption Expenditure Differences Across the Block (Before & After)

The Z- test was used to examine whether the observed difference in consumption expenditure was statistically significant or not. Table 6 presents the findings:

Table 6 reveals that the calculated value of 'Z' is greater than the table value at 5% level of Significance. Thus the null hypothesis is rejected. It implies the observed difference in expenditure is statistically significant. There is difference on the average expenditure incurred by the benefiaries in both the blocks before and after their participation in SHGs.

Consumption Expenditure Differences in MDB and LDB (Before & After)

The Z-test was also used to examine whether the observed difference in expenditure is statistically significant or not in both MDB and LDB, before and after the participation of the beneficiaries in SHGs.

Table 7 presents the details of MDB and Table 8 presents the details of LDB.

Table 7 reveals that the calculated value of 'Z' is greater than the table value at 1% level of Significant. Thus the null hypothesis is to be rejected. It implies the observed difference in expenditure is statistically significant. Thus, average consumption expenditure of the beneficiaries in MDB is found greater after their participation in SHGs.

Table 8 reveals that the calculated value of 'Z' is greater than the table value at 1% level of Significant. Thus the null hypothesis is to be

Table 6: Z-test on Consumption Expenditure Differences across Blocks

Characteristics	Value Before	Value After
X	2114.47	2927.80
Y	1546.9	2021.30
n1	190	190
n2	100	100
S.Dx	1598.93	1265.12
S.DY	1743.71	586.83
Calculated value of 'Z'	2.71	5.20
Table value of 'Z' at 5% level of significance	±1.96	±1.96
Null Hypothesis	Rejected	Rejected

Where,
X = Average Expenditure of beneficiaries in MDB.
Y = Average Expenditure of beneficiaries in LDB.
n1 = Number of Beneficiaries in MDB.
n2 = Number of Beneficiaries in LDB
S.Dx = Standard Deviation of Expenditure in MDB
S.DY= Standard Deviation of Expenditure in LDB
Null Hypothesis There is no significant difference in the average household expenditure between MDB & LDB before and after the participation in SHGs.

Table-7: Z-test on Consumption Expenditure Differences in MDB (Before & After)

Characteristics	Value
X1	2927.80
X2	2114.47
nx1	190
nx2	190
S.Dx1	2265.12
S.Dx2	1598.93
Calculated value of Z	4.04
Table value of Z at 1% level of significance	2.33
Null Hypotheses	Rejected

Where,
X1 = Average expenditure of beneficiaries in MDB after their participation.
X2 = Average expenditure of beneficiaries in MDB before their participation.
nx1 & nx2=Number of Beneficiaries in MDB.
S.Dx1= Standard Deviation of expenditure in MDB after the participation of the beneficiaries.
S.Dx2= Standard Deviation of expenditure in MDB before the participation of the beneficiaries.
Null Hypothesis: There is no significant difference in the average expenditure in MDB before and after the SHGs participation.
Alternative Hypothesis: Average income of the beneficiaries in LDB is greater after their participation in SHGs (Right tailed test)

Table 8: Z-test on Consumption Expenditure Differences in LDB (Before & After)

Characteristics	Value
Y1	2021.30
Y2	1546.90
nY1	100
nY2	100
S.DY1	586.83
S.DY2	1743.71
Calculated value of Z	2.58
Table value of Z at 1% level of significance	2.33
Null Hypothesis	Rejected

Where,
Y1 = Average expenditure of beneficiaries in LDB after their participation.
Y2 = Average Expenditure of beneficiaries in LDB before their participation.
nY1 & nY2=Number of Beneficiaries in LDB.
S.DY1= Standard Deviation of Expenditure in LDB after the participation of the beneficiaries.
S.DY2= Standard Deviation of Expenditure in LDB before the participation of the beneficiaries.
Null Hypothesis: There is no significant difference in the average income in MDB before and after the SHGs participation.
Alternative Hypothesis: Average income of the beneficiaries in LDB is greater after their participation in SHGs (Right tailed test)

rejected. It implies the observed difference in expenditure is statistically significant. Thus average consumption expenditure of the beneficiaries in LDB greater after their participation in SHGs. poverty can be eradicated with increasing consumption pattern and per capita income through different Microfinance programmes (Khandker 2002).

Conclusions and Policy Implications

It may be concluded from the study findings that the mean monthly income increased in MDB and LDB after membership of SHGs. However, between the Blocks, the increase was found higher in the case of MDB than that of LDB. Expenditure on almost all items increased due to increase in income of the beneficiaries in both the Blocks. Between the Blocks, the increase is higher in MDB as compared to LDB. Adopting Z-test significant differences were found in the level of income and consumption expenditure of the beneficiaries in both the Blocks before and after their participation in SHGs. Moreover, significant differences were also noticed in the levels of income and consumption expenditure of the beneficiaries before and after their participation in SHGs in each Block, irrespective of the promoting institutions.

The study also suggests that while the SHG programmes in rural Odisha is a successful one, but the promoting institutions are not discharging their duty properly. NGOs should redesign their strategy to promote the SHGs. It is also duty of the respective authority to monitor the functions and participations of NGOs in rural area, so that they can perform better and ultimately economic development will take place through SHG programmes.

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