Research Paper Management

An Impact Assessment of Microfinance: A Case Study of Socio-Economic Empowerment of SHG Members in Manipur (India)

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ABSTRACT

Purpose-
Microfinance holds a big promise to generate income and employment and alleviate poverty in developing countries. NGO-MFIs have significant contribution in building capacity of SHGs and shaping them to grow for self sustainable. This paper attempts to assess the economic empowerment of SHGs, the social empowerment of SHGs and the overall socio-economic empowerment of SHGS due to microfinance intervention of NGO-MFIs in Manipur State which is in the North-Eastern corner of India.
Design/methodology/approach-
A sample size of 120 SHG members of 60 SHGs from 20 NGOs is considered for the study. Socio-economic empowerment index before and after microfinance intervention is used for assessing the socio-economic empowerment of SHG members. Recall method is used for assessing the impact of microfinance as it is cost effective and less time consuming. However, cross verification is also done with records of SHG members maintained by NGO-MFIs and thereafter data is normalized to give near accurate result.
Findings –
It is found that after joining the microfinance programme, there is a significant improvement in overall economic empowerment index and the social empowerment index of the sampled SHG members. Further, findings also reveal that there is a significant improvement in overall Economic and Social Empowerment index of MFI's clients after joining the microfinance programme.
Research limitations/implications –
The study is limited to only NGOs & SHGs who are involved in micro-finance activities. The study does not attempt to cover other organizations or voluntary organizations who are involved in social development activities. Since recall method is used, some SHG members cannot remember properly and have responded on assumptions and approximation. However, this limitation has been normalized by comparing records maintained by NGO-MFIs.
Practical implications –
This finding of the study will be beneficial to many NGO-MFIs to understand how their microfinance intervention helps poor women empower economically as well as socially. The techniques and tools used in this study are very simple and easy and very practicable for the NGO-MFIs who want to evaluate the socio-economic change of their beneficiaries because of their microfinance programme.
Originality/value –
Study is purely based on the primary data collected from the field survey as well as from records maintained by NGO-MFIs. The findings and feedback given to the sample NGO-MFIs are highly beneficial to them and they are surprised to know that microfinance programme have significant contribution in the improvement of socio-economic status of SHG members.

Keywords : NGO-MFIs, SHGs, Economic empowerment index, social empowerment index.

Introduction

Microfinance holds a big promise to generate income and employment and to alleviate poverty in developing countries. This in turn, can have positive social effects at different levels of society, from the personal, to the community, and to the regional level. All microfinance institutions (MFIs) contribute at all levels and with the same strength. It is important to constantly monitor and also observe potential negative impacts, such as over-indebtedness of clients or risk of corruption and illegal use of credit. At the same time, it is to be understood that microfinance is not the solution to all problems in developing countries, but should be focused on economically active poor who can afford to borrow and repay money as part of their normal budget and who are not living in an emergency situation.

Non-Governmental Organization (NGOs), being non profit organisation with social developmental objective, have been playing important roles as facilitators or intermediaries in microfinance movement in India. NGO-MFIs have been playing significant roles in supporting and nurturing SHGs by not only extending credit or other financial services to SHGs but also in many ways.

Majority of NGOs have played a significant role as facilitators for formation of SHGs and providing training support because of their strengths in social intermediation process, concerns for the poor and ability to provide innovative for realizing their goals. They also help and assist SHGs in linking with banks for various financial services like loan, savings, etc. Over the

years, NGOs are changing their roles from social intermediary to financial intermediary by directly extending various financial services such as credit, insurance, savings etc to group members. Availability of bulk finance to these NGOs from banks and funding institutions like SIDI, RMK, etc. also motivate them to take up the role of financial intermediary.

NGOs have emerged as the major Self Help Promoting Institutions (SHPIs) mainly because of NABARD initiatives in 2000-01.Many NGOs provide training on group dynamism and group management. They also assist in formulation of group bye laws and group norms. Capacity building of SHGs is one of the challenges for many policy makers and agencies. NGOs have significant contribution in building capacity of SHGs and shaping them to grow for self sustainable. Various trainings that are provided by the NGO-MFIs are mainly book keeping, basic accounting, leadership and group management, skills for income generating activities, marketing support, etc.

Since most the NGO-MFIs deal with women groups, they have also directly contributed to women empowerment and gender equality. Not only providing credit, most of the NGOs tie up with various insurance companies to provide necessary micro insurance product to their poor SHG Members at cheaper premium. NGOs also help SHGs in taking up various social issues like sexual harassment, torture, alcoholism, dowry, gambling, etc. NGOs also provide necessary supports for SHG members in maintaining for their proper housing, hygienic sanitation, drinking water, family planning and children educations.

This paper attempts to describe overall socio-economic empowerment of SHG members due to microfinance Intervention using socio-economic empowerment index.

Review of literature

Review of available literatures on Impact Assessment methodologies for microfinance is done

According to Deba dutta K. Panda (2009) , Impact assessment refers to the assessment of how financial products and services affected the lives of the poor. Impact assessment is the measurement of the income growth, assets growth and vulnerability reduction of the poor by the microfinance programme. The indicators for impact assessment are not limited to economic development but extended to developmental growth like health, education, empowerment, gender, etc.

Impact assessment can be done through using qualitative as well as quantitative data collection tools. The qualitative tools are Participatory Rural Appraisal (PRA), Rapid Rural Appraisal (RRA), personal discussions, observations, etc. Quantitative impact assessment requires various mathematical, statistical and econometric models for analysis of data. In many microfinance programmes, both qualitative and quantitative methods are jointly used for overall impact assessment. Different level and methodologies of impact assessment of microfinance are briefly discussed here in this section.

According to Dunn (2002) and Cohen, M. and Bourjorjee, D. (2003*),*Impact Assessment (IA) for microfinance can be carried out at three different levels i.e. household level, enterprise level and individual level.

Under Before and After Intervention Impact Assessment Method, according to Panda, D.K. *(2009),* the status of the sample units (person/household/village, etc) before microfinance intervention is compared with that of the after microfinance intervention; taking the various parameters or variables. This method is good for assessment of the actual impact; but this method has a limitation. It becomes difficult to get the data (related to various variables) on before microfinance intervention from samples, as the impact assessment study is commissioned at the end of the programme.

Some of the microfinance programme compared the “Baseline Study” with the “Endline Study” for impact assessment. In the “Baseline Study” and “Endline Study” either the donor or the implementer designs a structured mapping of all the socio-economic characteristics that are related to a microfinance programme. The “Baseline Study” and the “Endline Study” are two similar studies that have conducted by taking the same components or variables; but the “Baseline Study” is conducted just before beginning of the microfinance programme; and the “Endline Study” is conducted just after ending the microfinance programme.

Chen, M.A and Dunn, E. (1996) developed a model called Household Economic Portfolio Model (HEPM) to measure the impact of microfinance. The *household economic portfolio* can be defined as a) the set of household resources, b) the set of household activities, and c) the circular flow of interaction between household resources and household activities .

The household economic portfolio (HHEP) model is based on a conceptualization of the microenterprise as part of a larger portfolio of household economic activities. This model provides a framework for developing hypotheses about the cause-and-effect relationships between micro enterprise services and impacts. It measures the impacts, or changes, at the household, the microenterprise and the individual levels.

Chen and Snodgrass (1999) carried out impact assessment study of SEWA Bank in India at three different levels i.e. at household level, at enterprise level and at individual level. Study reveals that participation in microenterprises services leads to an increase in the level of household income, improvement in housing, increase in microenterprise revenues, increase in self-esteem and self-confidence, etc.

Barnes, Morris and Gaile (1998) have taken following broad four parameters for their baseline study in Uganda i.e. 1) improvements in the economic welfare of households; 2) enterprise growth or stability; 3) increases in empowerment, especially among women; and 4) strengthened social and rural networks.

Ansera (1996) reviewed various methods and techniques of collection, measuring and analysis of household income. Most methods for measuring income are based on respondent recall of relevant data, and are typically subject to considerable inaccuracy and distortion due to recall errors. Some of the indirect or alternative methods used for measuring household economic status are wealth ranking technique, household assets and household expenditure, microenterprise income, etc.

The study of Puhazhendhi &Satyasai (2002) found that microfinance programme in India have positively contributed for the economic and social empowerment of rural poor.

Cohen and Chen (1997) used a framework based on parameters such as material change (income, earning capacity, resources control, basic needs, etc), perceptual change (self esteem, self confidence, future vision, respect, etc.), cognitive change (knowledge, skills, awareness, etc.), relational change (decision making, bargaining power, participation, self reliance, organizational strength, etc.) for measuring impact of microfinance at individual level.

A study was conducted by Puhazhendi & Badatya (2002) to assess the impact of microfinance channelised through SHG Bank Linkage programme implemented by NABARD. Pre and post comparison of SHG situations of socio-economic conditions of 115 members of 60 SHGS was done to quantify the impact and the findings revealed that SHG Bank Linkage Programme made a significant contribution to social and economic improvement of SHG member households.

SIDBI (2008) conducted a nationwide longitudinal study from 2004-2007. The study covered 4510 households consisting of

3253 client households and 1257 non-client households of 25 MFIs. The findings of the study revealed that the client households got benefits from their association with microfinance. Some of the benefits received by client households were in the forms of enhancement of women empowerment, expansion of diversification of livelihood activities, reduction in vulnerability, growth in employment opportunities, reduction in vulnerability, income growth, savings and access to loans.

The Economic and social indicators to be used for the study are identified from thee above review of literature and mentioned in the research methodology section.

Objectives of the study

The objectives of the study are given below:

a) to assess the economic empowerment of SHGs due to microfinance intervention
b) to assess the social empowerment of SHGs due to microfinance intervention
c) to assess the overall socio-economic empowerment of SHGS due to microfinance intervention

Hypotheses governing the Study are given below:

a) **Null hypothesis (H0):** There is no significant improvement in overall economic empowerment index of MFI's SHG Members after joining the microfinance programme.
b) **Null hypothesis (Ho):** There is no significant improvement in overall Social empowerment of MFI's SHG Members after joining the microfinance programme.
c) **Null hypothesis (Ho):** There is no significant improvement in overall Economic and Social Empowerment Index of MFI's SHG Members after joining the microfinance programme..

Methodology adopted for the study

Type of research: The nature of the research used for the study is hypothesis testing research to test the hypothesis formulated for the proposed study.

Universe of Study: The universe study consists of two populations; one for NGOs and the other for individual SHG members. In Manipur, there are about 900 NGOs out of which there are 75NGOs which are directly associated with microfinance. So, the universe of the study for NGOS consists of 75 NGOs. The universe of the individual SHG members is all the SHG members of the NGOs selected for the study.

Sample Size: For the purpose of study, only 20 NGOs which is 26 per cent of 75 NGOs which are directly involved in microfinance are considered. So the sample size of NGOs is 20.

In all there are 14,988 individual members of 20NGOs. With the help of sample size determination software, the calculated sample size is found to be 120 SHG members at 8.9 per cent of confidence interval. So the sample size is 120 SHG members.

Sampling Method: A multistage sample design is adopted for selecting the sample SHGs and sample SHG members to be interviewed in the survey.

First stage: 20 NGOs is selected from 75 NGO's by using simple random sampling with replacement which comes under Probability sampling method.

Second stage: From each of selected NGOs, 3 SHGs is again chosen by using simple random sampling method. Thus, 60 SHGs is taken for the study.

Third stage: 2 individual SHG members are selected to be included in the sample by using simple random sampling from each of the 60 SHGs identified. Therefore, in all there are 120 SHG members which is covered under the study.

Sources of data and data Collection method:

The study is based on both the primary and secondary data. The secondary data are collected from various Government Departments, Financial Institutions, and Banks. The primary data are collected through interview schedule from NGOs and SHGs. Besides interview schedule, focus group discussions and observations method are also used.

Economic and social Indicators used in the study:

The Economic and social indicators to be used for the study are identified from the review of literature and are given below.

Economic Indicators:

1. Household Assets 2. Household Income 3. Expenditure 4. Savings 5. Loan 6. Housing Type

Social Indicators:

Self Confidence; 1. Confidence of facing financial crisis 2. Confidence of meeting official people 3. Physical mobility

Skills ; 4. Communication skills 5. Business Skills 6. Financial Skills (book keeping, accounting, etc) Social awareness and recognition; 7. Social recognition 8. Social awareness (AIDS, family planning, government schemes etc) 9. Ability to take up social issues like abuse, violence, drugs, alcoholism etc)

10. Respect in the family

Access to facilities/services; 11. Medical facilities 12. Hygienic sanitation facilities

Socio economic empowerment assessment of SHGS

Socio-economic empowerment index is used for assessing the socio-economic empowerment of SHGs. Socio-economic empowerment index measures relative social and economic profile of SHG members. Change in socio-economic empower index before and after joining the microfinance will indicate overall socio-economic empowerment of SHG members due to microfinance intervention.

Economic Empowerment Index

For the purpose of the study, economic empowerment index is rating score of economic parameters measured in terms of household assets, household income, household expenditure, household savings, loan and housing type of the SHG members. It can be expressed as

Economic Index (En) = $\sum E_i / \sum E_{i(max)}$

Where, $\sum E_i$ = ith Economic Indicators

$\sum E_{i(max)}$ = Maximum scores ith Economic Indicators.

Social Empowerment Index

The parameters used for calculating the social empowerment index for the purpose of study are self confidence level, skills, social awareness and recognition and ability to access various public facilities and services. Social empowerment index can be expressed by the following formula:

Social Index (Sn.) = $\sum S_i / \sum S_{i(max)}$

Where, $\sum S_i$ = ith Social Indicators

$\sum S_{i(max)}$ = Maximum scores ith Social Indicators.

Combined Socio-Economic Empowerment Index

The combined social-economic empowerment index is the average weighted index of economic empowerment index and social empowerment index. This index measures the overall socio-economic index of SHG members and the study on change of this index helps in determining the socio-economic impact of microfinance programme on SHG members. For the purpose of study, formula for calculating the combined index of socio and economic empowerment is derived as under:

SEIn= w1Sn + w2En

Where,
SEIn =Combine Socio-Economic Empowerment Index
Sn = Social Empowerment Index
En = Economic Empowerment Index
$w1 = \sum S_{i(max)} / (\sum S_{i(max)} + \sum E_{i(max)})$
w2= 1-w1
w1= 65/ (65+36) = 0.6435
w2=0.3565

Therefore,
SEIn = 0.6435 Sn + 0.3565 En.

(Source of Socio economic empowerment index: Puhazhendhi,V. & Satyasai,K.J.S.,2002)

Data Analysis
For the summarisation of the data, descriptive statistics is used. For data analysis, socio-economic empowerment index and independent sample t test are used.

Period of study: For analyzing the growth of SHG members, primary data was collected during the period 2007-2008. Therefore, the reference year of the study is 2007-08.

Scope and Limitation of the Study: The research is restricted to only 20 NGOs and 120 SHG members promoted by NGOs of Manipur. Therefore, the study is limited to only NGOs & SHGs who are involved in micro-finance activities. The study does not attempt to study other organizations or voluntary organizations who are involved in social development activities. The study does not attempt to cover SHGs promoted by other agencies such Banks, Government Agencies, etc. Therefore, no attempt is made to generalize the finding for other region or for India as whole.

FINDINGS of the study
Assessment of Economic Empowerment Index
Scores assigned to different Economic Indicators for preparing Economic Index is given in the Table no.-1.

Table no.-1: Score of Economic Empowerment Index

Economic Indicators/ Scores	1	2	3	4	5	6	Max score
1. Household Assets	Below Rs.5000	Rs.10000	Rs.15,000	Rs.20,000	Rs.25,000	Above Rs.25,000	6
2. Household Income	Below Rs.2000	Rs.4000	Rs.6000	Rs.8000	Rs.10000	Above Rs.10000	6
3. Expenditure	Below Rs.1000	Rs.2000	Rs.3000	Rs.4000	Rs.5000	Above Rs.5000	6
4. Savings	Below Rs.200	Rs.400	Rs.600	Rs.800	Rs.1000	Above Rs.1000	6
5. Loan	Below Rs.2000	Rs.4000	Rs.6000	Rs.8000	Rs.10000	Above Rs.10000	6
6. Housing Type	Katcha house(rented)	Katcha House (own)	Semi-pucca Housse (rent)	Semi-pucca House (own)	Pucca House (rent)	Pucca House (owned)	6
				TOTAL SCORE			36

Economic Empowerment Index: It is calculated by using the following expression,

Economic Index (En) = $\sum E_i / \sum Ei_{(max)}$

Where,
$\sum Ei$ = ith Economic Indicators
$\sum E_{i(max)}$ = Maximum scores ith Economic Indicators.

Economic empowerment Index for 120 selected SHGs is calculated from the data of the situations before and after joining the SHGs. The study reveals that the average economic empower index increases from 33.65 per cent to 43.54 per cent (Table no.-2), showing improvement in economic status of the most of the sample SHG members after joining the microfinance programme.

Table no.-2: Average Economic Empowerment (EE) Index

	N	Range	Min.	Max.	Mean	Std. Deviation	Std. Error
Before Joining MFI	120	69.44	16.67	86.11	33.65	13.9524	1.2737
After Joining MFi	120	69.45	19.44	88.89	43.54	15.7344	1.4363

Further analysis of frequency distribution revealed that number of sample SHG members having economic empowerment index less than 40 per cent (Table no.-3) has been reduced from 91 (75.8 per cent) to 59 (49.1 per cent) after joining the microfinance programme. Thus, it is observed that microfinance helps in improving the economic empowerment of SHG members.

Table no.-3: Economic Empowerment Index

Economic Index	No of Individual MFI's SHG Members							
	Before joining MFIs				After joining MFIs			
	Frequency	Cum.fr	%	Cum.per	Frequency	Cum.fr	%	Cum.per
Upto 20	9	9	7.5	7.5	1	1	.8	.8
20-40	82	91	68.3	75.8	58	59	48.3	49.1
40-60	23	114	19.2	95	44	103	36.7	85.8
60-80	4	118	3.3	98.3	12	115	10.0	95.8
80-100	2	120	1.7	100	5	120	4.2	100
Total	120		100		120			

Source: Primary data

Hypothesis testing is carried out to examine the significant impact on economic empowerment index by comparing before and after situations. The result of the hypothesis testing is presented below.

Hypothesis testing:
Null hypothesis (Ha): There is no significant improvement in overall economic empowerment index of MFI's SHG Members after joining the microfinance programme.

Alternative hypothesis (Ho): There is significant improvement in overall economic empowerment index of MFI's SHG Members after joining the microfinance programme.

Table no.-4: Paired Sample T-Test on Economic Empowerment Index

Economic Empowerment Index of SHG Member	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
After – Before	9.8851	6.6569	0.6077	8.6818	11.0884	16.267	119	.000*

Statistical tool used: SPSS for Window (v.10.0.5)
Significant at 0.01 level

Since t value is significant at α = 0.01 level, the above null hypothesis is rejected and alternative hypothesis is accepted. Thus, it can be concluded that there is significant improvement in overall economic empowerment index of SHG members after joining the microfinance programme.

Assessment of Social Empowerment Index

Scores assigned to different Economic Indicators for preparing Economic Index is shown in Table no-5.

Table no.-5: Score for Social Empowerment Index

Social Indicators/Scores	1	2	3	4	5	Max score
Self Confidence						
1. Confidence of facing financial crisis	Not at all	Very little	Somewhat	Much more	To a great extent	5
2. Confidence of meeting official people	-do-	-do-	-do-	-do-	-do-	5
3. Physical mobility	No Mobility	Seldom/ Restricted	Sometimes/ Occasional	More/Often	Free and always	5
Skills						
4. Communication skills	Hesitates to talk	Talk only if asked	Sometimes talks	Normally /usually talks	Freely and openly talks	5
5. Business Skills	Extremely Poor	Poor	Satisfactory	Good	Excellent	5
6. Financial Skills (book keeping, accounting, etc)	-do-	-do-	-do-	-do-	-do-	5
Social awareness and recognition						
7. Social recognition	Not at all	Very little	Somewhat	Much more	To a great extent	5
8. Social awareness (AIDS, family planning, government schemes etc)	-do-	-do-	-do-	-do-	-do-	5
9. Ability to take up social issues like abuse, violence, drugs, alcoholism etc)	Submit to oneself	Resist	Lodge complain in the group	Complain to relatives	Warns	5
10. Respect in the family	Not at all	Very little	Somewhat	Much more	To a great extent	5
Access to facilities/services						
11. Medical facilities	Extremely Poor	Poor	Satisfactory	Good	Excellent	5
12. Hygienic sanitation facilities	-do-	-do-	-do-	-do-	-do-	5
13. Drinking water supply	-do-	-do-	-do-	-do-	-do-	5
TOTAL SCORE						65

Social Empowerment Index: It is calculated by using the following expression

Social Index (Sn.) = $\sum S_i$ / $\sum S_{i(max)}$

Where,

$\sum Si$ = ith Social Indicators

$\sum Si_{(max)}$ = Maximum scores ith Social Indicators.

Social empowerment Index for 120 selected SHGs is calculated from the data of the situations before and after joining the SHGs. It is found that average social empowerment index increased from 45.16 per cent to 68.64 per cent after joining the microfinance programme.

Table no.-6: Average Social Empowerment Index

	N	Range	Min.	Max.	Mean	Std. Deviation	Std. Error
Before Joining MFI	120	53.84	23.08	76.92	45.1663	9.5194	0.8690
After Joining MFi	120	41.54	47.69	89.23	68.6412	8.5586	0.7813

Further, it is found that number of SHG members having social empowerment index above 40 per cent increased from 82 out of 120 sample items (68.33 per cent) to 120 (100 per

cent) after joining the microfinance programme. It is observed that there is some improvement in social empowerment index after joining microfinance programme.

Table no.-7: Distribution according to Social Empowerment (SE) Index

Social Index	No of Individual MFI's SHG Members							
	Before joining MFIs				After joining MFIs			
	Frequency	Cum.fr	%	Cum.per	Frequency	Cum.fr	%	Cum.per
Upto 20	--		--		--		--	
20-40	38	38	31.7	31.7	--		--	
40-60	76	114	63.3	95	19	19	15.8	15.8
60-80	6	120	5.0	100	92	111	76.7	92.5
80-100	--	120	--	100	9	120	7.5	100
Total	120		100		120		100.0	

Source: Primary data

Paired samples t-test is used to test the hypothesis for establishing the impact on social empowerment index of SHG members after joining microfinance programme. The result of hypothesis testing is shown below:

Hypothesis testing:
Null hypothesis (Ho): There is no significant improvement in overall Social empowerment of MFI's SHG Members after joining the microfinance programme.

Alternative hypothesis (Ha): There is significant improvement in overall Social empowerment of MFI's SHG Members after joining the microfinance programme.

Table no.-8: Paired Samples t-Test on Social Empowerment Index

Social Empowerment Index of SHG Member	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Before-After	23.47	7.50	0.68	22.11	24.83	34.26	119	.000*

Statistical tool used: SPSS for Window (v.10.0.5)
Significant at 0.01 level

Since t value is found significant at α = 0.01, the above null hypothesis is rejected and alternative hypothesis is accepted. Therefore, it can be concluded that there is significant improvement in overall social empowerment index of SHG members after joining the microfinance programme.

Combined Socio-Economic Empowerment Index
For the purpose of study, formula for calculating the combined index of socio and economic empowerment is derived as under:

SEIn= w1Sn + w2En

Where,

SEIn =Combine Socio-Economic Empowerment Index
Sn = Social Empowerment Index
En = Economic Empowerment Index
$w1 = \Sigma S_{i(max)} / (\Sigma S_{i(max)} + \Sigma E_{i(max)})$
w2= 1-w1
w1= 65/ (65+36) = 0.6435
w2=0.3565

Therefore,
SEIn = 0.6435 Sn + 0.3565 En.

Combined Socio=Economic Empowerment Index for 120 selected SHGs are calculated from the data of the situations before and after joining the SHGs by using the above equation of Combined Socio-Economic Empowerment Index.

Table no.-9: Avg. Combined Empowerment Index

	N	Range	Min.	Max.	Mean	Std. Deviation	Std. Error
Before Joining MFI	120	58.41	21.78	80.20	41.0631	9.6809	0.8837
After Joining MFi	120	47.53	40.59	88.12	59.6932	9.6771	0.8834

It is found that the average combined empowerment index increased from 41.06 per cent before joining microfinance to 59.69 per cent showing positive socio-economic impact of microfinance on SHG members.

Table no.-10: Frequency Distribution of Combined Empowerment Index

Combined Empowerment Index	No of Individual MFI's SHG Members							
	Before joining MFIs				After joining MFIs			
	N	Cum. fr	%	Cum. per	N	Cum. fr	%	Cum. per
Upto 20	-		-		-		-	
20-40	59	59	49.2	49.2	-		-	
40-60	58	117	48.4	97.6	60	60	50	50
60-80	2	119	1.6	99.2	55	115	45.8	95.8
80-100	1	120	0.8	100	5	120	4.2	100
Total	120		100		120		100.0	

It is also found that number of SHG members having combined empowerment index above 40 per cent (Table no.-10) increases from 61(i.e. 120-59=61) out of 120 which is 50.80 per cent (i.e. 100-49.2=50.8) to 120 (i.e.100 per cent). It is observed that there is some improvement in socio-economic status of SHG members after joining the microfinance programme.

However, in order to confirm this improvement in socio-economic empowerment index, a hypothesis testing is done using paired t-test comparing pre and post situation of microfinance intervention. The result of hypothesis testing is shown below:

Hypothesis testing:
Null hypothesis (Ho): There is no significant improvement in overall Economic and Social Empowerment Index of MFI's SHG Members after joining the microfinance programme.

Alternative hypothesis (Ha): There is significant improvement in overall Economic and Social Empowerment Index of MFI's SHG Members after joining the microfinance programme.

Table no.-11: Paired Sample t-Test on Combined Empowerment Index

Combined Empowerment Index of SHG Member	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Before- After	18.63	6.3692	0.5814	17.478	19.7814	32.042	119	.000*

Statistical tool used: SPSS for Window (v.10.0.5)
Significant at 0.01 level

It is observed from the above table that the t value of 32.042 is found to be significant at α= 0.01. Hence, null hypothesis is rejected and alternative hypothesis is accepted. Therefore, it can be concluded that there is a significant improvement in overall Economic and Social Empowerment Index of SHG members after joining the microfinance programme.

Conclusion

Most of the NGO-MFIs are changing role from social intermediary to financial intermediary by providing various financial services to SHGs such as loan, savings, micro-insurance, etc. It is found that there is a significant improvement in overall economic empowerment index of MFI's clients after joining the microfinance programme. It is also found that social empowerment index of sample SHG members is significantly increased after joining the microfinance programme.Further, findings also revealed that there is a significant improvement in overall Economic and Social Empowerment index of MFI's clients after joining the microfinance programme.

REFERENCES

1. Ansera, A. (1996), "A review of approaches for measurement of microenterprise and household income", AIMS, USAID, Washington D.C. | 2. Barnes, C., Morris, G. and Gaile, G. (1998), "An assessment of impact of microfinance services in Uganda, Basline findings", AIMS, USAIDS, Washington, D.C. | 3. Chen, M.A. and Dunn, E. (1996),"Household Economic Portfolios", AIMS, USAID, Washington D.C. | 4. Chen, M.A. and Snodgrass, D. (1999), "An Assessment of the impact of SEWA Bank in India-Base line findings", AIMS, USAID, Washington D.C. | 5. Cohen, M. and Bourjorjee, D. (2003), "Impact of Microfinance", Donor Brief No. 13, CGAP, Washington | 6. Cohen, M. and Chen,M.A. (1997), "A Guide for assessing the microenterprise services at the individual level"' AIMS, USAID, Washington, D.C. | 7. Dunn, E. (2002). "Research Strategy for the AIMS Core Impact Assessment", AIMS, , University of Manchester | 8. Panda, D.K. (2009), "Understanding Microfinance", Wiley India, New Delhi. | 9. Puhazhendhi,V. & Satyasai,K.J.S.(2002)" Empowerment of Rural Women through Self Help Groups-An Indian Experience", National Bank News Review, (June 2002). | 10. Puhazhendi, V. and Badatya,K.C. (2002), "SHG –Bank Linkage Programme for Rural Poor-An Impact Assessment", NABARD. | 11. SIDBI, 2008 "Assessing Development Impact of Micro Finance Programmes: Findings and policy implications from a National Study of Indian Micro Finance Sector", |