

State Wise Analysis of Microfinance Penetration in India

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Abstract

The persistent failure and non-responsiveness of the formal financial institutions to the financial needs of poor has led to the evolution of microfinance programmes in India. Self Help Groups (SHGs) and Microfinance Institutions (MFIs) are the two different microfinance delivery channels adopted in India. The two models have depicted uneven microfinance penetration. There is concentration of microfinance services are concentrated mainly in the Southern region of the country. The present study attempts to provide empirical estimates of Microfinance penetration across states in India using Microfinance Penetration Index (MPI). The empirical analysis shows that the outreach and penetration of microfinance programmes across various states in the country has been uneven and revealed a higher concentration in the southern states. The results of Kendall's index of rank concordance provide support to the fact that the overall gap among states is not narrowing down.

Keywords: India, Microfinance, MFIs, Microfinance Penetration Index, SHGs, Kendall's index of Rank Concordance.

1. Introduction:

Microfinance provides the access to financial services to the low-income individuals or to small and medium size enterprises. These services include loans, savings, insurance, and remittances. As per the RBI master circular on micro credit, "Micro Finance is defined as a provision of thrift, credit and other financial services and products of very small amount to the poor in rural, semi-urban and urban areas for enabling them to raise their income levels and improve their living standards". Asian Development bank, 2000 defines "Microfinance as the provision of a broad range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low-income households and, their micro enterprises". The Microfinance sector in India is currently a very complex system and involves diverse Micro-Financial Institutions and microfinance investment vehicles, whereby the microcredit is offered even to the customer with zero banking access. The large section of the population has remained outside the ambit of formal banking sector despite wide expansion of banking network in the country. Informal credit sources remain the predominant source of finance to meet credit requirements of the poor of the country. The informal credit sources generally consist of exorbitant interest and hostile terms and conditions. The formal financial institution are discouraged to focus on the economically marginalized population mainly due to high risks and costs pertaining to small transactions and absence of physical collateral in most cases that lower profitability. In fact, it is believed that the loan disbursements to wealthier clients is less risky and expensive than lending to poor clients as they have regular incomes. Microfinance has addressed these market failures and has provided financial services to low-income clients. It has provided a commercially viable and relevant provision of financial services to a large section of society within formal financial system. The microfinance has not simply fulfilled the credit needs of poor people but also has made them

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'bankable' and 'viable'. In fact, in an era of globalization, liberalization and reforms microfinance is proving itself to be a successful phenomenon with profitable and viable business models. MFIs have developed methods to reduce these costs (e.g. by offering group loans, making borrowers jointly responsible for the repayment of individual loans). The commercial banks are also supporting the microcredit programmes. In fact, the microfinance sector has addressed the financial inclusion agenda of the country.

Presently, "there are two main models of microfinance in India and they are the Self Help Group Bank Linkage Model (SBLP) and the MicroFinance Institution" MFI model. "SHG-Bank Linkage Model (SHG-BLM) provides microfinance with the help of vast rural network of the formal financial sector. In this model, the informal SHGs are credit linked with the formal financial institutions. This model is flexible, independence creating, and imparts freedom of saving and borrowing according to the requirements of group members" (Sinha 2009). SHGs are small, informal and homogeneous groups of 10 to 20 members each. Bank officials, NGOs and institutions at the village level formed these groups. In MFI model, the apex financial institutions, donors and banks lend large amount of funds to MFIs for further lending to the individuals or groups. These MFIs provide financial services to the individuals or to the groups like SHGs, Grameen groups etc. According to NABARD report on status of microfinance (2016), "the SBLP is the largest microfinance programme in the world because of its sheer size and outreach."

NABARD (2016) further states that "as on 31 March 2016 the number of SHGs having savings linkage was 85.76 lakhs a total bank loan outstanding to SHGs also increased by 7.81% and stood at Rs.61581.30 crores. Of these SHGs, a major portion (70.4%) is from priority States indicating the efforts to connect the poor households in less developed States. The domain of SHGs consists of 85.4% women groups and is the mainstay programme for empowerment of the poor rural women in the country." "As for the regional distribution, the share of the Southern states dominates the both in number of SHGs and the amount of loan disbursed during 2015-2016. SBLP has not only improved the outreach of banking services among poor but has proved to be the strong intervention in the economic enablement for the bottom of pyramid."

According to Bharat Microfinance Report, 2016, "The Indian Microfinance Institutions (MFIs) Sector has also witnessed a phenomenal growth over the past few years. MFIs operate in 29 States, 4 Union Territories and 563 districts in India. They have a branch network of 10,233, have reached out to 29 million clients with an outstanding loan portfolio of Rs 46,842 crores. The Southern region continues to have the highest share of both outreach and loans outstanding, followed by East. However, growth rates are higher in the Northeastern and East regions. Outreach proportion of urban clientele has decreased significantly as against the rural population. Women borrowers constitute 96% of the total clientele of MFIs." With this background, the present paper aims to examine microfinance outreach across different states of India using "Microfinance Penetration Index (MPI)" (Srinivasan, N. 2010) using pre-determined dimensions. The rest of the paper proceeds as follows: **Section 2** briefly gives the objectives of the study. The source of data and key analytical parameters used in the study are provided in the **Section 3**. The empirical results are discussed in **Section 4**. **Section 5** summarizes the major findings of the study.

2. Objectives of the study:

The objective of the study is to:

- Provides an empirical analysis of regional variations in the level of outreach of SHGs and MFIs.
- Estimate the level of "Microfinance Penetration" across different states of India.

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3. Data:

The study is based on mainly secondary sources of data for the year 2015 and 2016. The published reports of NABARD, Government of India, Bharat Microfinance Report and empirical research papers forms the important source of data used in the study. The Microfinance Index (MPI) is calculated using the following formula:

$$\text{MPI} = \frac{\text{Proportion of microfinance clients in the state}}{\text{Proportion of households in the state}}$$

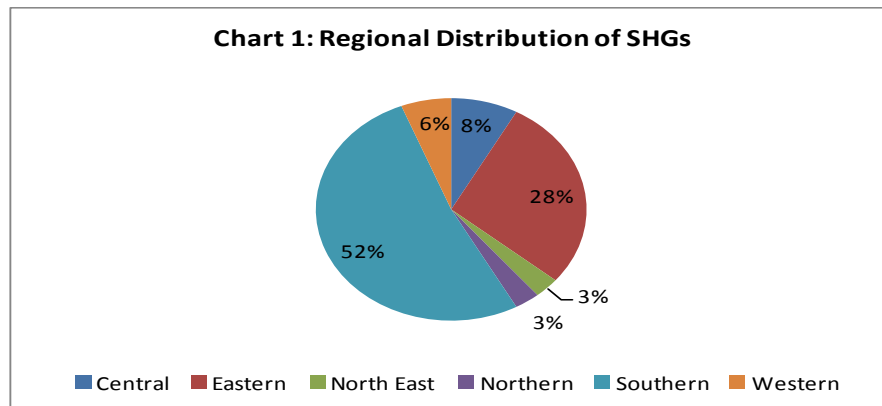
The proportion of microfinance clients in the state is calculated by dividing the microfinance client of MFIs and SHGs with total clients of MFIs and SHGs of the country. The proportion of households in the state is equal to the total no of households in state divided by total number of household in the country.

4. Empirical Results:

There is a large unevenness in the outreach of microfinance programmes across various regions of the country under both the models. The Southern region of the country has depicted a high level of client outreach and loan portfolio both under the SBLP and MFI models.

4.1 Regional Distributions of SHGs:

The regional distribution of SHGs shows that the states in the southern region accounts for more than 50% of total number of SHGs in the country with eastern region accounts for 28% share of the total SHGs in the year 2016 (**Chart 1**). Among the southern states Andhra Pradesh has the maximum number of SHGs (29%). The upward trend is witnessed in all regions in the number of saving linked SHGs during 2016 compared to 2015.



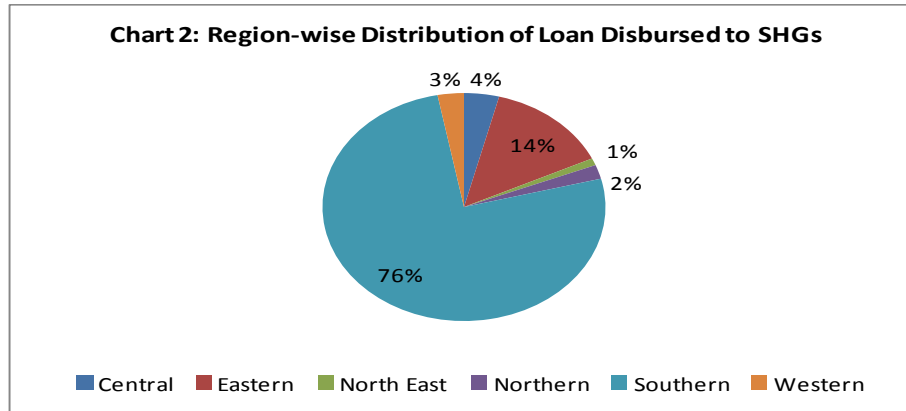
Source: Compiled from NABARD Report on Microfinance, 2016

4.2 Region-wise Bank Loans Disbursed to SHGs :

The region-wise analysis of the distribution of loans disbursed to SHGs during 2016 shows that the 76% of the total loan is disbursed to the states in the southern region which is the maximum amongst the states followed by eastern region with 14%. More than 50% of the total loan disbursed to SHGs belongs to Andhra Pradesh and Telengana put together. The north-eastern region with only 1% of the total loan disbursed to SHGs has the minimum share. (**Chart 2**).

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Source: Compiled from NABARD Report on Microfinance, 2016

4.3 Regional Outreach of MFIs:

The client outreach is the important indicator of the growth of MFIs. The MFIs served 371 lakh clients which were increased to 399 lakhs in 2015 which reduced to 295 lakh in 2016. Of these women clients consist of 97% of the total clients and 38% of rural clients.

NABARD (2016) "The geographical spread of MFIs shows that twenty one MFIs with a large outreach and portfolio have operations in more than five states, out of which four leading MFIs are operating in more than fifteen states. Twenty five MFIs with a large outreach and portfolio have operations in more than five states, out of which five leading MFIs are operating in more than fifteen states. A total of 57 MFIs (34%) are operating in two to five states, while 90 MFIs (54%) have confined their operations to only one state." The distribution of operations of 168 MFIs across different States/ Union Territories is given in **Table 1**.

Table 1: Number of MFIs in Indian States/UTs (2016)

No. of States/UTs	No. of MFIs
1	90
2 to 5	57
6 to 10	13
11 to 15	4
>15	4

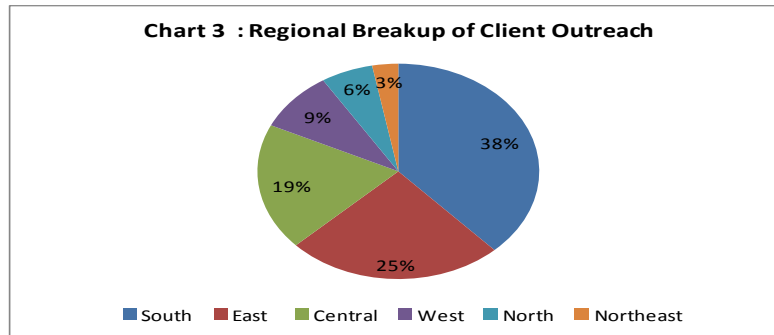
Source: Compiled from NABARD Report on Microfinance, 2016

There is the concentration of microfinance operations in only one or two states for the MFIs with smaller scale and regional focus whereas larger MFIs spread across a higher number of states. This is mainly aimed to enlarge the size and scale of operations and to mitigate the risk of concentration. The MFIs with multiple states operations, in general, have larger scale of operations and follow NBFC-MFI as the legal form of organization structure.

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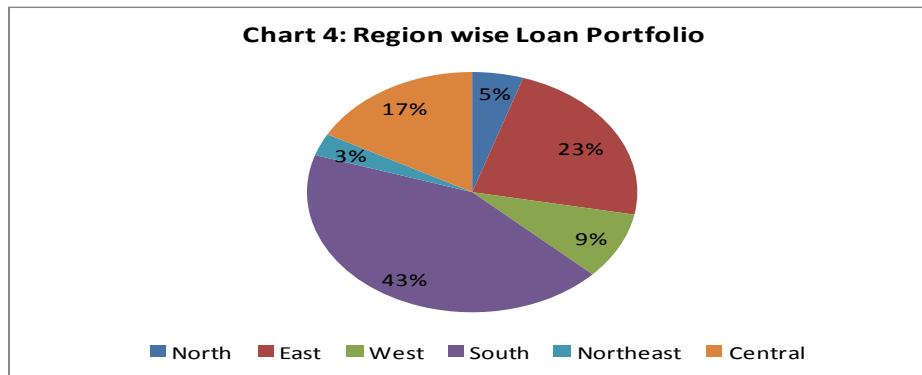
The geographical expansion of bigger MFIs is illustrated by the fact that while in 2013 only 15 MFIs had operations in 5 states, that number increased to 25 in 2015 and stands at 21 in 2016. The regional breakup of client outreach, according to NABARD, (2016) depicts that “Out of the total client base of 295 lakh, Southern region alone contributes to 38% followed by 25% each in East and 19% in Central region whereas West and North have 9% and 6% of total outreach respectively. Northeast has the least client outreach numbers with 3%. Share in outreach has expanded only in case of east and northeast regions from 20% to 25 %, 2 to 3% respectively.” **(Chart 3).**



Source: Compiled from NABARD Report on Microfinance, 2016

4.4 Region-wise loan portfolio of MFIs

The pattern of region-wise loan portfolio depicts that the states of the Southern region dominates the overall loan portfolio outstanding of MFIs constituting 43% of total loan portfolio. The eastern region follows the southern states with 23% and Central and western have a share of 17% and 9% respectively of the total MFI's loan portfolio. The states of North and Northeast region depicts the lowest portfolio share of 5% and 3% respectively **(Chart 4).**



Source: Compiled from NABARD Report on Microfinance, 2016

4.5 Microfinance Penetration Index:

The regional appraisal of microfinance spread across the country in terms of client outreach and loan portfolio in the earlier section has revealed a concentration of microfinance services in the southern states.

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Table2: Microfinance Penetration Index during 2015

States	SHGs Members ¹ (in number)	MFI Clients ² (in number)	Microfinance Clients (Total)	State's Share in total Microfinance clients	State's Share of Household to Total ³	MPI	Rank
A & N Islands	143	2000	2143	0.01	0.04	0.25	24
Andhra Pradesh*	1552070	363000	1915070	4.36	8.53	0.52	18
Arunachal Pradesh	390	19000	19390	0.05	0.11	0.46	21
Assam	56862	773000	829862	1.89	2.59	0.73	7
Bihar	51519	2257000	2308519	5.26	7.68	0.69	8
Chandigarh	169	2000	2169	0.01	0.1	0.1	30
Chhattisgarh	7904	535000	542904	1.24	2.28	0.55	15
Goa	117	7000	7117	0.02	0.14	0.15	27
Gujarat	34385	460000	494385	1.13	4.94	0.23	25
Haryana	16120	383000	399120	0.91	1.92	0.48	20
Himachal Pradesh	1222	13000	14222	0.04	0.6	0.07	31
Jammu & Kashmir	1118	3000	4118	0.01	0.82	0.02	32
Jharkhand	57655	621000	678655	1.55	2.51	0.62	9
Karnataka	1503424	6833000	8336424	18.97	5.35	3.55	1
Kerala	38935	742000	780935	1.78	3.13	0.57	13
Madhya Pradesh	81783	2053000	2134783	4.86	6.07	0.81	5
Maharashtra	121368	2133000	2254368	5.13	9.67	0.54	16
Manipur	559	73000	73559	0.17	0.21	0.81	6
Meghalaya	312	12000	12312	0.03	0.22	0.14	28
Mizoram	858	57000	57858	0.14	0.09	1.56	2
Nagaland	1001	4000	5001	0.02	0.17	0.12	29
NCT of Delhi	650	115000	115650	0.27	1.36	0.2	26
Odisha	88569	2294000	2382569	5.42	3.92	1.39	3
Puducherry	4693	28000	32693	0.08	0.13	0.62	10
Punjab	975	546000	546975	1.25	2.2	0.57	14
Rajasthan	53105	628000	681105	1.55	5.1	0.31	23
Sikkim	260	11000	11260	0.03	0.06	0.5	19
Tamil Nadu	185003	3225000	3410003	7.76	7.5	1.04	4
Tripura	2613	43000	45613	0.11	0.35	0.32	22
Uttar Pradesh	97786	2982000	3079786	7.01	13.35	0.53	17
Uttarakhand	16315	192000	208315	0.48	0.81	0.6	12
West Bengal	88075	2116000	2204075	5.02	8.14	0.62	11

Source: Authors Own Calculation * Includes data for Telangana State 1. "Status of Microfinance in India, 2015, NABARD". 2. "The Bharat Microfinance Report 2015, Sa-Dhan ." 3. Census, 2011.

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Table3: Microfinance Penetration Index during 2016

States	SHGs Members ¹ (in number)	MFI Clients ² (in number)	Microfinance Clients (Total)	State's Share in total Microfinance clients	State's Share of Household to Total ³	MPI	Rank
A & N Islands	22386	1000	23386	0.03	0.04	0.75	16
Andhra Pradesh*	17664400	1022000	18686400	20.2	8.53	2.37	2
Arunachal Pradesh	3107	17000	20107	0.03	0.11	0.28	27
Assam	1318941	684000	2002941	2.17	2.59	0.84	12
Bihar	4734197	2393000	7127197	7.71	7.68	1.01	9
Chandigarh	1391	13000	14391	0.02	0.1	0.2	30
Chhattisgarh	1222234	836000	2058234	2.23	2.28	0.98	11
Goa	20774	13000	33774	0.04	0.14	0.29	26
Gujarat	628732	1263000	1891732	2.05	4.94	0.42	23
Haryana	292461	598000	890461	0.97	1.92	0.51	21
Himachal Pradesh	214318	49000	263318	0.29	0.6	0.49	22
Jammu & Kashmir	78442	2000	80442	0.09	0.82	0.11	32
Jharkhand	1134562	675000	1809562	1.96	2.51	0.79	14
Karnataka	8446217	7528000	15974217	17.27	5.35	3.23	1
Kerala	1857999	1223000	3080999	3.33	3.13	1.07	8
Madhya Pradesh	1192490	2819000	4011490	4.34	6.07	0.72	17
Maharashtra	2962856	3857000	6819856	7.38	9.67	0.77	15
Manipur	22906	88000	110906	0.12	0.21	0.58	19
Meghalaya	16445	19000	35445	0.04	0.22	0.19	31
Mizoram	17914	65000	82914	0.09	0.09	1	10
Nagaland	31837	4000	35837	0.04	0.17	0.24	28
NCT of Delhi	5395	252000	257395	0.28	1.36	0.21	29
Odisha	2868606	2352000	5220606	5.65	3.92	1.45	7
Puducherry	72969	127000	199969	0.22	0.13	1.7	3
Punjab	154466	626000	780466	0.85	2.2	0.39	25
Rajasthan	1124292	820000	1944292	2.11	5.1	0.42	24
Sikkim	9048	28000	37048	0.05	0.06	0.84	13
Tamil Nadu	4995991	5722000	10717991	11.59	7.5	1.55	5
Tripura	441688	100000	541688	0.59	0.35	1.69	4
Uttar Pradesh	2576262	3936000	6512262	7.04	13.35	0.53	20
Uttarakhand	188357	322000	510357	0.56	0.81	0.7	18
West Bengal	8703097	2491000	11194097	12.1	8.14	1.49	6

* Includes data for Telangana State. Source: Authors Own Calculation based on the compiled data from

1. "Status of Microfinance in India", 2016, NABARD.
2. The Bharat Microfinance Report 2016, Sa-Dhan.
3. Census, 2011.

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Since the inception of MFI's sector in India, the Southern states have been predominant in microfinance activities however; the eastern and central regions of the country have depicted the substantial increase in the spread of microfinance network in recent years. The penetration of microfinance activity in different states has been analyzed using Microfinance Penetration Index (MPI). The MPI provides estimates of the ratio of proportion of microfinance clients of the states to the total clients as compared to their share in the population. In other words, MPI show the comparison of the outreach of microfinance clients with the total households in the country. The value of one indicates the par value and shows that the state's share in microfinance clients is equal to proportion of population in the states. The MPI of more than one indicates share of microfinance clients of the state is more than the share of state's population and so better than par performance. MPI score of less than one indicates less than par performance in microfinance outreach of the state. The computation of the index for the year 2015 and 2016 are presented in the **Table 2 and Table 3** below with the state-level scores.

The Tables reveal that the states in Southern region have depicted dominant position in terms of microfinance clients as compared to the other states, both in terms of SHG members and MFI clients. The "Microfinance Penetration Index (MPI)" (Srinivasan, N. 2010) in the Table 2 above reveals that amongst Southern region Karnataka is leading in penetration followed by Mizoram, Odisha and Tamil Nadu. The lowest MPI is found for the state of Jammu& Kashmir and Himachal Pradesh with MPI of 0.02 and 0.07 respectively. In the year, 2016 the top three position are held by all southern states (viz Karnataka, Andhra Pradesh and Puducherry. Amongst the northeastern states Tripura has shown the MPI of 1.69 in 2016 followed by Assam and Sikkim. Jammu& Kashmir has the lowest MPI score of 0.11 in the 2016. The positive growth MPI score is witnessed in most of the state during during 2016.

4.6 Kendall's Index for MPI

It is relevant to analyze the rankings of the states according to their level of microfinance penetration (as measured by MPI) and evaluate its variations over the years. The Kendall's index of rank concordance is computed to examine the same. The test results for the association between 2015 and 2016 are given below (**Table 4**):

Table 4: Kendall's Index for MPI (2016)

Pearsons'r	= 0.737***
Pr (r=0)	= 0.000
Bradley-Blackwood F	=4.502***
(P=0.01)	

Source: Authors Own Calculation

It may be seen that there is strong conclusive evidence that there exist association among ranks of different years. Thus, the cross-sectional dispersion of microfinance penetration is not declining over time and there is no indication of improvement amongst the low performers is not over the years. Thus, the states have shown the stability in ranks with regard to their level of MPI. There is no evidence of narrowing down of overall gap in MPI penetration amongst Indian states.

5. Conclusion:

Microfinance has become, in recent years, a significant development initiative for the poor, and is regarded as an important tool for poverty alleviation. The Self Help Group and Microfinance

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Institutions are the two models being operated in India to deliver microfinance services mainly to the financially excluded section of the country. These delivery models have penetrated deep into various regions of the country. The greater concentration of microfinance activities is found in the Southern region of the country. The North- Eastern regions have depicted limited coverage of formal financial institutions and backward microfinance sector. Economically and socially excluded people can be better integrated with the access to a well-functioning financial system. It can actively contribute to development and protects poor against economic shocks. In order to alleviate poverty and reduce regional disparities of the country, the microfinance delivery models should strive to provide access of formal financial system to the unreached, financially excluded population.

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