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Growth and disbursement of institutional microcredit to small and marginal farmers in Karnataka

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Abstract

Microfinance is a provision of thrift, credit, and other financial services and products of very small amounts to the poor. Self Help Group (SHG) banking is the primary mode of microfinance in India, reaching over six million families. The present study aims to analyze growth in disbursement of institutional microcredit in Karnataka. Secondary data on required information was collected from various published sources. The findings ascertain that growth in SHG's registered with financial institutions under Bank-Linkage Program was positive and significant in Kalaburagi district (15.19 percent), Kalyana Karnataka region (5.41 percent), State (5.35 percent) and India (13.81 percent) while positive (7.58 percent) and non-significant growth was noticed in Raichur district. The growth in disbursement was 5.41 and 35.97 percent in Raichur and Kalaburagi districts respectively while the growth in outstanding was 15.77 and 29.97 percent. The high rate of interest charged by financial institutions is major constraint in availing microcredit while low farm income is the major constraint faced in repayment of microcredit.

Keywords: Disbursement, microcredit, microfinance, outstanding and self-help groups

Introduction

Microfinance program in the recent past have become one of the most promising ways to use scare development funds to achieve the objective of poverty alleviation. The term microfinance was originated with the introduction of Grameen bank in Bangladesh by Professor Mohammad Yunus in 1983. It possibly includes range of financial services targeted to the poor, in common parlance, however, micro credit and microfinance are often used interchangeably with emphasis on provision of credit to the poor.

Microfinance is a provision of thrift, credit, and other financial services and products of very small amounts to the poor in rural, semi-urban, or urban areas for enabling them to raise their income levels and improve living standards. The term 'micro' literally means 'small', but the task force has not defined any amount. However, RBI microcredit special cell says borrowers' accounts up to the limit of Rs. 25,000 could be levelled as microcredit products and this amount could be gradually increased up to Rs. 40,000 over a period which is roughly equal to Rs. 81,500 a standard for South India as per international perceptions.

There is wide variety of institutional and non-institutional structure catering with various degrees of success, to the microfinance needs of the poor family. They comprise of Commercial Banks, Regional Rural Banks, Cooperative Banks, and other non-institutional Microfinance sources comprising of Non-Governmental Organizations, Non-Banking Financial Companies, Cooperative Societies, Self Help Groups etc.,

According to the study published by Statista Research Department, Jan 17, 2021, in December 2020, Scheduled Commercial Banks in India had a market share of 42 percent, Small Finance Banks (SFB) 17 percent, Microfinance Institutions (NBFC-MFI) 32 percent, Non-Banking Financial Companies (NBFC) 8 percent and Not for Profit MFIs had market share of 1 percent on loans within the Microfinance Industry.

SHG-Bank Linkage Programme is the primary mode of microfinance in India, reaching over six million families. The Self-Help movement is deep-rooted in southern states and Karnataka has been at the forefront in terms of promotion and credit linkage. Despite its considerable outreach and high repayment rates, financial viability of SHG banking has not been clear.

The study of microfinance situation in Karnataka can be used as a tool to improve socio economic condition of small and marginal farmers and can be used improve the microfinance market in the state. With this background an attempt is made to study the growth in disbursement and outstanding of microcredit by different financial institutions.

Methodology

The study was conducted in Karnataka state with a special focus on the Kalyana- Karnataka region. Raichur and Kalaburagi districts were selected based on highest priority sector lending in the Kalyana Karnataka region. Secondary data pertaining to the study was collected from the respective district lead bank, District Rural Development Program (DRDP) and National Rural Livelihood Mission (NRLM) and other published sources. The information includes number of SHGs formed in the district, loan disbursed to SHG and loan outstanding against SHGs over the last 5 years in selected districts.

Analytical Tools

Compound Annual Growth rate analysis was employed to study the growth in disbursement and outstanding of microcredit with different financial institutions. Garret ranking technique was employed to document the constraints faced by borrowers in availing and repayment of microcredit.

1. Compound Annual Growth Rate
2. Percent change/Tabular analysis
3. Garret ranking test

Compound Annual Growth Rate analysis

For evaluating the trend in total number of SHG formed, total loan disbursed to SHGs and loan outstanding against the SHGs in Kalaburagi and Raichur districts of Kalyana Karnataka region, an exponential form of the growth function was used as shown below

$$Y_t = AB^t V E_t \quad (1)$$

Where,

Y_t = Micro-credit disbursed during time t

A = Intercept indicating micro-credit disbursed in the base period

$B = 1 + g$, where g = growth rate

t = Time period

U_t = Disturbance term for year t

By taking the logarithm, equation (1) was reduced to the following form

$$\ln Y_t = \ln A + (\ln B)t + E_t$$

This was of the following form

$$Q_t = a + bt + u$$

Where,

$Q_t = \ln Y_t$

$a = \ln A$

$b = \ln B$

$u = E_t$

The values of “a” and “b” were estimated by ordinary least square method.

Once “b” value was estimated, g was computed as:

$$g = (\text{Antilog } (b) - 1) * 100$$

For the effective comparison, the growth rates worked out with the help of equation were multiplied by 100 to obtain the percentage change in the variable concerned.

Garret ranking test

Garrett's ranking technique was used to identify the constraints faced by farmers in borrowing and repayment of micro-credit in the study area. Garrett ranking is applied to rank a set of items or factors as perceived by the sample respondents based on their priority. The order of merit assigned by the respondents was converted into scores using the following formula.

$$\text{Percent position} = \frac{100 * (R_{ij} - 0.50)}{N_j}$$

Where,

R_{ij} = the rank of the i^{th} constraint by j^{th} borrower and

N_j = the number of constraints ranked by the j^{th} individual.

By referring to the Garret and Woodworth table (1969), percent position estimated was converted into a score. Then, for each factor, the scores of various respondents were added and the mean score was calculated. The factor with the highest mean score was considered to be the most important constraint. Thus, mean score for each constraint was ranked by arranging them in the descending order.

Results and Discussion

It could be seen from the (Table 1) that the growth in SHG's registered with financial institutions showed positive and significant in study districts, Kalyana Karnataka region, Karnataka and India as a whole except Raichur district wherein non-significant growth was noticed. It is interesting to note that the growth rates in SHG's were found to be positive during the study period in both the district, Kalyana Karnataka, state and country as a whole. In Raichur district growth rate was 7.58 percent and non-significant while growth in SHG's with financial institutions under Bank-Linkage Program was significantly increasing (15.19%) in Kalaburagi district mainly due to increase in number of bank branches and awareness created by National Rural Livelihood Mission staff in the district. In Kalyana Karnataka region as a whole growth rate in Bank-Linkage Program was 5.41 percent and significant even though growth rate was non-significant in Raichur district.

The percent change in number of SHG's registered with financial institutions under Bank-Linkage Program was highest (12.91%) during 2020-21 in Raichur district. However, the highest percent change in Kalaburagi district (16.41%) was during 2021-22 and 23.53 percent in Kalyana Karnataka region during 2018-19. The lower growth in the region could be attributed due to non-implementation of this program in recently formed districts comprising Vijaynagara, Koppal and Yadgir districts. The overall percent change in Raichur and Kalaburagi districts was 27.09 and 76.23 percents respectively during study period. In Karnataka, the total number of SHG's linked with

financial institutions increased significantly from 2,81,321 in 2017-18 to 4,87,270 in 2021-22. Similarly, the SHG's linked with financial institution under Bank-Linkage Program increased from 27.53 lakhs to 42.68 lakhs during study period in India. The growth rate in SHG's in Karnataka and India was 5.35 and 13.81 percents respectively. The percent change in SHG's registered with financial institutions was 73.21 and 55.05 percents respectively during the period 2017-18 to 2021-22. It was highest during 2018-19 in Karnataka (47.68%) and during 2020-21 in India as a whole.

The comparative data of SHG's registered with financial institutions in Raichur and Kalaburagi district indicated that

the growth was higher (15.19%) and significant in Kalaburagi district compared to Raichur district (7.58%) which is non-significant. The higher growth in Kalaburagi district revealed that the number of SHG's under Bank-Linkage Program increased from 10,057 in 2017-18 to 17,724 in 2021-22. The lower and non-significant growth in Raichur district during study period might be due to meagre increase in the number of SHGs linked under Bank-Linkage Program. Similar results were obtained by Hiregouda *et al.* (2017) ^[5] and Ravindra Chavan *et al.* (2019) ^[2] for Karnataka State Finance Corporation branches and subsidized agricultural credit respectively.

Table 1: Self-Help Groups registered with financial institutions under Bank-Linkage Program in Karnataka

Year	Raichur		Kalaburagi		KK Region		Karnataka		India	
	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change
2017-18	13792	-	10057	-	68093	-	281320	-	2752936	-
2018-19	14309	03.75	11561	14.95	84117	23.53	415449	47.68	3144221	14.21
2019-20	15866	10.88	13340	15.39	88666	05.41	455654	09.68	3421516	08.82
2020-21	17914	12.91	15226	14.14	96654	09.01	475710	04.40	4769847	39.41
2021-22	17529	-02.14	17724	16.41	97434	00.80	487270	02.43	4268554	-10.51
Overall percent change	27.09		76.23		43.09		73.21		55.05	
CAGR (percent)	07.58		15.19**		05.41**		05.35**		13.81**	

Source: National Rural Livelihood Mission Report, 2021 (www.nrlm.gov.in)

Note: percent change in current year value to its previous year value

** Significant at 5 percent level

* Significant at 1 percent level

The district wise comparison of growth performance of Bank-Linkage Program (Table 2) indicated that Kalaburagi district has shown significant higher positive growth (15.19%) compared to Raichur district (7.56%). However, growth in Bank-Linkage Program was non-significant in Kalyana Karnataka region (5.41%) mainly due to lower performance of Bank-Linkage Program in other districts of the region. In case of Karnataka state as a

Table 2: Institution-wise growth in SHGs under Bank-Linkage Programme during 2017-18 to 2021-22 (Percent)

Institution/Area	Public Sector Banks	Regional Rural Bank	Cooperative Bank	Private Bank	Overall
Raichur	09.91*	-08.26	-	03.71	07.56**
Kalaburagi	16.45*	-27.00	-	-02.04*	15.19*
KK region	09.07	-04.45	19.65*	06.38	05.41
Karnataka	13.70*	-05.25	-02.48	02.31*	09.80*
India	15.90*	08.60	-03.57	15.07**	13.31**

Note: ** Significant at 5 percent level

*Significant at 1 percent level

Whole, significant positive growth (9.80%) was noticed because of effective implementation of this program in all the districts of Karnataka. Thus, the growth for the state as a whole was found to be significant. A similar pattern of growth was observed in the country as a whole with 13.31 percent significant growth in the coverage of SHG's under Bank-Linkage Program at the national level. The results are in line with the findings of Das (2022) ^[3], Mohd (2018) ^[7] and Dey (2015) ^[4].

The institution wise growth in number of SHG's linked with the banks indicated that higher growth was observed in case

of Public Sector banks across districts, region, state and country as a whole. While, in case of Regional Rural banks negative growth was observed in selected districts, region and state except country wherein positive growth rate was noticed. In case of Cooperative banks mixed trend of positive growth in Kalyana Karnataka region (19.65%) and negative growth at state (-2.48%) and country level (-3.57%) was noticed. In contrary, a positive growth was noticed in case of Private banks at all locations except Kalaburagi district.

An analysis of district wise, region, state and country as a whole indicated that Public Sector bank was the major player in implementation of Bank-Linkage Program to facilitate microcredit to the vulnerable sections or neglected sections. Therefore, emphasis should be given to promote distribution of microcredit through Primary Agricultural Cooperative Societies at the block level in general and village level in particular. It may be concluded that the SHG's coverage under Bank-Linkage Program is shown increasing trend because of easy availability of microcredit with less paper work. In contrary, rate of interest charged by the financial institutions for lending microcredit to the needy people was on the higher side.

Table 3 indicate the institution wise growth in disbursement of microcredit in Raichur and Kalaburagi district during 2017-18 to 2021-22. The growth in disbursement by Public Sector banks was 6.08 percent indicating positive growth. The growth in disbursement by Regional Rural banks is positive with 3.81 percent. However, the growth in disbursement by Private sector banks was found to be positive and significant with an annual growth rate of 14.97 percent. The overall average growth in disbursement was found to be 5.41 percent across financial institutions in

Raichur district. In the case of Kalaburagi district, the growth rate in disbursement was positive and significant by Public sector banks with 39.11 percent. Similarly, the growth rate was found to be 10.12 percent by Private banks. However, growth rate in disbursement by Regional Rural banks was negative and significant with -6.98 percent. The overall average growth in disbursement in Kalaburagi district was positive and significant with 35.97 percent.

The outstanding amount with banks against SHG's is

depicted in (Table 4). Public sector banks were leading in outstanding amount throughout the years. However, it was minimum in case of Private sector banks. The total outstanding amount with all the institutions which was Rs. 19,902 lakhs during 2017-18 have increased to Rs. 33,928 lakhs in 2021-22 in Raichur district. In the case of Kalaburagi district, the total loan outstanding with financial institutions which was Rs. 9939 lakhs in 2017-18 have increased to Rs. 28939 lakhs.

Table 3: Institution-wise growth in disbursement of microcredit in study area (Rupees in lakhs)

Year/Institution	Public Sector Bank	Regional Rural Bank	Cooperative Bank	Private Bank	Aggregate
I. Raichur					
2017-18	19433 (86.35)	2152 (09.56)	552 (02.45)	367 (01.64)	22505 (100.00)
2018-19	25308 (88.29)	2740 (09.56)	242 (00.84)	376 (01.31)	28666 (100.00)
2019-20	21020 (84.78)	2881 (11.63)	309 (01.24)	583 (02.35)	24793 (100.00)
2020-21	24768 (90.00)	2872 (10.20)	00 (00)	508 (01.80)	28148 (100.00)
2021-22	26390 (89.29)	2535 (08.57)	00 (00)	635 (02.14)	29560 (100.00)
CAGR	06.08	03.81	-	14.97**	05.41
II. Kalaburagi					
2017-18	6506 (86.11)	354 (04.68)	05.50 (00.07)	690 (09.14)	7556 (100.00)
2018-19	14907 (92.72)	389 (02.42)	00 (00)	781 (04.86)	16077 (100.00)
2019-20	18167 (93.12)	329 (01.69)	00 (00)	1013 (05.19)	19508 (100.00)
2020-21	21229 (95.59)	269 (01.21)	00 (00)	711 (03.20)	22209 (100.00)
2021-22	28405 (95.07)	296 (01.00)	00 (00)	1175 (03.93)	29876 (100.00)
CAGR	39.11*	-06.98**	-	10.12	35.97*

Source: National Rural Livelihood Mission, Report, 2021 (www.nrlm.gov.in)

Note: Decimal values are rounded to its nearest value

**=Significant at 5 percent level

* Significant at 1 percent level

Table 4: Institution-wise growth in outstanding of microcredit in the study area (Rupees in lakhs)

Year/Institution	Public Sector Bank	Regional Rural Bank	Cooperative Bank	Private Bank	Total
I. Raichur					
2017-18	16751 (84.17)	2297 (11.55)	510 (02.56)	342 (01.72)	19902 (100.00)
2018-19	18070 (83.10)	2846 (13.09)	452 (02.08)	375 (01.73)	21744 (100.00)
2019-20	21388 (84.28)	2968 (11.68)	520 (02.05)	502 (01.99)	25379 (100.00)
2020-21	28089 (86.76)	3151 (09.73)	520 (01.61)	616 (01.90)	32376 (100.00)
2021-22	29548 (87.09)	3151 (09.29)	520 (01.53)	709 (02.09)	33928 (100.00)
CAGR	17.07*	07.61**	01.80	21.52*	15.77*
II. Kalaburagi					
2017-18	7538 (75.84)	835 (08.41)	581 (05.85)	985 (09.90)	9939 (100.00)
2018-19	11962 (82.48)	918 (06.33)	581 (04.01)	1041 (07.18)	14502 (100.00)
2019-20	15023 (85.29)	904 (05.13)	581 (03.30)	1105 (06.28)	17614 (100.00)
2020-21	21061 (89.48)	866 (03.68)	581 (02.47)	1028 (04.37)	23536 (100.00)
2021-22	26194 (90.52)	828 (02.86)	581 (02.01)	1336 (04.61)	28939 (100.00)
CAGR	35.76*	-0.77**	00	06.14	29.97*

Source: National Rural Livelihood Mission, Report, 2021 (www.nrlm.gov.in)

Note: Decimal values are rounded to its nearest value

** Significant at 5 percent level

* Significant at 1 percent level

In 2021-22. Contribution by Public sector banks is highest and was around 85 percent in Raichur while the contribution by Public sector bank which was 75 percent in 2017-18 has increased to 90 percent during 2021-22 in Kalaburagi district. However, contribution by Private banks was minimum in case of Private sector bank in Raichur and Kalaburagi districts. The results are in line with the findings of Ahangar *et al.* (2013) ^[1] and Kumar *et al.* (2015) ^[6]. The relative ranking of availing microcredit as well as socio-economic constraints as perceived by the farmers in availing and repayment of microcredit is presented in (Table 5). High rate of interest on microcredit borrowed tops the

list of constraints in availing microcredit. This indicated the urgency for minimizing interest rate in supply of adequate quantum of credit by financial institutions including Private banks which are involved in supply of microcredit to the needy people. Though the farmers used microcredit, non-availability of microcredit at right time (II-rank) resulted diversion of microcredit for other unproductive activities. The non-availability of sufficient quantity of microcredit was other major constraint (III-rank) as perceived by sample respondents. Similar results were observed by Hiregouda *et al.* (2017) ^[5] and Chavan *et al.* (2016) ^[2]. Higher cost of microcredit, cumbersome procedure and compulsion of

collateral security were other constraints opined by the farming community. Due to cumbersome procedure farmers were compelled to approach private money lender to meet out their financial needs. Therefore, these constraints need to be solved on priority basis for popularizing microcredit among small and marginal farmers. The findings of the study are in line with the findings of Ali *et al.* (2016) ^[10].

Conclusion

The growth in SHG's registered with financial institutions under Bank-Linkage Program was positive and significant in Kalaburagi district (15.19%), KK region (5.41%), State (5.35%) and India (13.81%) while positive (7.58%) and non-significant growth was noticed in Raichur district. The Public Sector bank was the leader in linking SHG's with financial institutions under Bank-Linkage Program in the study district, Karnataka state and country as a whole. The growth rate of SHG's registered under the Bank-Linkage Program with Public Sector banks (9.07%), Cooperative banks (19.65%) and Private banks (6.38%) were positive except RRB's (-4.45%) in Kalyana Karnataka region. The growth in disbursement (5.41%) across the financial institutions was positive in Raichur district while it was 35.97 percent in Kalaburagi district.

Competing Interests

Author have declared that no competing interests exist.

Authors Contributions

Author A designed the study, performed statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author B guided throughout this study. Author C and Author D managed the analysis of the study and Author E managed the literature search. All authors read and approved the final manuscript.

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