

Unlocking Potential- A Decade-plus Evolution of SHG Growth in Southern India

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Abstract: The present research study explores the 12-year growth and performance of Self-Help Groups (SHGs) in the southern states of India, such as Undivided Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu. SHGs, a pivotal element of grassroots economic empowerment, have witnessed significant expansion and transformation in this region. This study aims to provide a comprehensive understanding of their evolution, impact, and financial dynamics. The analysis begins by examining the number of SHGs, their savings patterns, loan disbursement, outstanding loans, and Non-Performing Assets (NPAs) in each state. Furthermore, the Kruskal-Wallis H Test and post hoc tests are used to identify significant differences among the states. The study helps to know that Undivided Andhra Pradesh leads in the case of SHG numbers and savings groups, indicating robust financial inclusion and savings mobilization efforts. However, it also grapples with a substantial burden of outstanding loans. Tamil Nadu stands out with the lowest NPAs, reflecting prudent asset management. Karnataka and Kerala exhibit greater variability in financial indicators, suggesting diverse SHG experiences within these states.

Keywords: Self-Help Groups, Southern India, Financial Performance, micro-finance

JEL Codes: C12, G21, I38

1. Introduction

Self-help groups (SHGs) have been a powerful force for change in India's socioeconomic environment, making a substantial contribution to eradicating poverty, empowering women, and fostering communal growth. NABARD (National Bank for Agriculture and Rural Development) defines SHGs as small, informal groups, often consisting of 10 to 20 people, who get together voluntarily to generate and manage resources for the profit of the group's members and to encourage saving practices among members who have a

similar socioeconomic background. In India, the notion of SHGs was first established in the 1980s with the main goal of empowering marginalized communities, especially women, by providing them with a conducive environment for group credit, savings, and skill building. Self- Help Groups were initially created by NGOs (Non-Governmental Organizations) but later in the 1990s it was supported by RBI and commercial banks. Then SHGs were formed through SBLP (SHG- Bank Linkage Programme) and also supported by the government. Hence Different SHG models were built in India. Some of the important SHG models are the Bank Linkage Model, IFAD (International Fund for Agricultural Development) Model, NGO Model, and SGSY (Swarna Jayanti Gram Swarozgar Yojana) Model. The goal of the SGSY model, which the Indian government introduced in 1999, is to empower self-sufficient rural communities via the formation of SHGs. The initiative changed its name to the National Rural Livelihoods Mission (NRLM) in 2011, which is currently the biggest anti-poverty program in the world. From the time of its launch, the SBLP (SHG-Bank Linkage Programme) has shown regional preferences.

II. Review of Literature

Empowering women and promoting gender equality speed up sustainable development. SHGs in South India facilitated women in acquiring higher decision-making power. (Tesoriero 2006). The study of SHGs in South India shows that the SHGs do not work alone in the area of microfinance, the state institutions also play a vital role. The relationship between state institutions and women SHGs is asymmetrical. Banks provide loans to women on the condition of repayment of old mortgages taken by male relatives, old loan repayments, and also women have experienced discrimination in granting loans on the basis of caste and class. (Kalpana, 2008). The participation of the women in SHGs helps them earn a livelihood and achieve household welfare. The public policies have contributed a lot in this regard. (Suresh Kumar, 2009). The study on SHGs in north Karnataka claims that the SHGs do not challenge the existing power hierarchy at the socio-economic level and just use low-cost methods to address the poverty issue (Pattenden J, 2010). SHGs have an optimistic influence on the rural financial market and contribute a lot to increasing the livelihood of the poor in rural areas. (Fujita and Sato, 2011). Pokhriyal (2011) found out that the rural poor are getting a small share of disbursed credit. The regional disparity in the financial services is evident and southern states of India are enjoying supremacy in the SHG bank linkage program. The SHGs are greatly successful in specific states such as Tamil Nadu, Karnataka, Uttar Pradesh, and Andhra Pradesh (Amarender Reddy and Dharm Pal Malik,2011). Newransky *et al.* (2014) observed in their study from the southeast coast of

India, that the poorest and most marginalized people are the widows and abandoned women. The states of south India are executing better compared to the northern, northeastern, western, eastern, and central regions in the case of leading the microfinance program and women empowerment (Laha and Kuri, 2014). The continuous training and other support from SHGs have improved the self-efficacy of the participants. The relationship between microcredit and the social structure of class and caste in rural South India is studied to understand the effect of the functioning of the SHGs. It is grasped that existing inequalities are a hindrance to the effective working of the SHGs (Guerin, I., & Kumar, S. 2017). Two villages of Tamil Nadu are studied to know the ethnographic material of microfinance served through SHGs. The study concentrates on shades of debts as good and bad and how the objective, gender, class, and caste facilitate the management of debt (Carswell et.al, 2020). Microfinance institutions with an integrated approach benefit human development as it has income-generating effects through the production function and risk-mitigating effects through the protective function (Kuriakose *et al.* 2020). The over-indebtedness in India is not necessarily due to the participation of the people in micro-finance. The reasons for over-indebtedness in India are borrowings from non-Micro finance institutions and low income (Puliyakot *et al.* 2020)

III. Research Design

The diverse states of India with their unique socio-cultural backgrounds and state generic developmental policies, differ in the functioning and results of any developmental programmes. The main objective of this study is to investigate the regional variations in SHG growth in southern states of India.

1. Objectives

The Specific objectives of the present study are mentioned below.

- (i) To calculate and evaluate the growth rate of self-help groups in South Indian states.
- (ii) To offer a quantitative analysis of the asymmetry, variability, and distribution of Self-Help Groups among the selected states.
- (iii) To look at any variances in Self-Help Group performance amongst the South Indian states.

2. Hypothesis

The following hypothesis is considered for this study.

- (i) There is no difference among the selected variables across the southern states.

3. Methodology

The present work is based on secondary data procured from “Status of Micro Finance in India”, the annual survey of NABARD. The period for this study is twelve years from 2010-11 to 2021-22. The study considers four states namely Undivided Andhra Pradesh (which includes Telangana as it was established in the year 2014), Karnataka, Kerala, and Tamil Nadu. The Compound Annual Growth Rate (CAGR) has been calculated to know the growth of SHGs in different states of India for 12 years. The variables applied in the study to compare the growth of SHGs in different states are -the number of Self-Help Groups, Savings, Bank Loan Disbursement, Bank Loan Outstanding, and Amount of Non-Performing assets. One of the NPAs, the Kruskal-Wallis H-test was utilized to evaluate for statistical significance of variations among the different states of South India, and a Post Hoc test was done using the Conover-Iman test to identify exactly which states differ from each other. R-programming language is used for inferential statistics. The study used the following equations for statistical analysis.

4. Findings and Discussion

(i) Financial performance and growth dynamics of self-help groups

SHGs play an important role in promoting financial inclusivity and economic empowerment at the grassroots level. To measure the performance of the SHG, above mentioned five financial indicators are taken.

Table 1: Compound Annual Growth Rate of selected variables in the southern states of India

<i>CAGR (%) OF SOUTHERN STATES (2010-2022)</i>						
<i>In lakh rupees</i>						
<i>Sl. No.</i>	<i>States</i>	<i>Number of SHGs</i>	<i>Amount of savings</i>	<i>Amount of loan disbursed</i>	<i>Amount of outstanding loans</i>	<i>Amount of non-performing assets</i>
1	Undivided Andhra Pradesh	2	26	17	14	7
2	Karnataka	3	6	21	18	18
3	Kerala	-1	13	14	14	4
4	Tamil Nadu	2	10	8	8	14

Source: Status of Micro Finance in India, Various Reports of NABARD, Mumbai. Computed by the researcher

Table 1 throws light on the compound annual growth rate through selected parameters of SHGs of southern states of India. Karnataka with a three percent rise in the number of SHGs, ranked first in the southern states of India demonstrating its success in fostering the growth of SHGs during this time. In the case of financial matrices, the savings have increased significantly in undivided Andhra Pradesh with a growth rate of twenty-six percent. Karnataka has a significant growth rate in the amount of loan disbursement with twenty-one percent, which shows the confidence of the financial sector in the SHGs. However, the eighteen percent growth rate in both, the amount of outstanding loans and the amount of NPAs questions the credibility of the SHGs in the state. The growth rate of the number of outstanding loans is highest in Karnataka with eighteen percent followed by Undivided Andhra Pradesh and Kerala with fourteen percent. Though, the SHGs in Tamil Nadu record an eight percent growth rate which is the least among the southern states, that cannot be considered as a positive component as the growth rate of the loan disbursement amount also is the least. Undivided Andhra Pradesh with a seven percent growth rate and Kerala with a four percent growth rate exhibit better debt management

(ii) Assessing the Economic Variability: Kruskal -Wallis Test Insights for the Southern States

Levene's test is used to check the assumption of homogeneity of the variance and the Shapiro-Wilk test is applied to evaluate whether the data set follows the normal distribution. When these two tests were run on the data set, the p-values were less than 0.05. Hence, it is concluded that the assumption of homogeneity of variance and normal distribution are not met. Therefore, the most popular analysis ANOVA cannot be used. Hence, the Kruskal-Wallis H-test is utilized as a non-parametric substitute for one-way ANOVA.

The Kruskal-Wallis H-test is conducted to examine if there are any statistically significant differences between the medians of three or more independent groups. When the normalcy assumption is broken, this non-parametric version of the one-way ANOVA is usually employed. Compared to a one-way ANOVA, this test is far less sensitive to deviations and does not presuppose normalcy in the data.

Table 2: Comparison of selected variables for the South Indian States

<i>Kruskal Wallis result</i>	<i>Number of SHGs</i>	<i>Amount of Savings</i>	<i>Amount of Bank Loan Disbursement</i>	<i>Amount of Bank Loan Outstanding</i>	<i>Amount of non-performing Assets</i>
Chi Squared	41.07	27.14	30.32	31.88	32.25
P Value	6.305e ⁻⁰⁹	5.479e ⁻⁰⁶	1.184e ⁻⁰⁶	0	4.626e ⁻⁰⁷

Source: Calculated from the tables published in various reports of NABARD-Status of Microfinance in India. *Output is generated through R programming. Computed by the researcher.*

Note: Significant at 1% level.

The Kruskal Wallis H-test results for all five economic variables show that there are statistically significant differences between the states. The large chi-squared values for all the variables indicate that there are overall statistically significant differences between the states for each variable. The small p-values further confirm the significance of these differences. This suggests that the groups differ significantly in terms of the variables being analyzed. These differences are highly unlikely to occur by random chance, as indicated by the very low p-values. Hence the null hypothesis is not accepted. This suggests that the economic variables (Number of SHGs, Amount of Savings, Amount of bank loan disbursement, Amount of bank loans outstanding, and Amount of NPAs) vary significantly among the states under consideration.

(iii) Post-Hoc Analysis of the Group Differences in Economic Variables

Post-hoc analysis aids in pinpointing which particular state differs from the other while the Kruskal-Wallis H-test examines state differences as a whole. It identifies the locations of the key differences making reliable comparisons and recognizing the intricacies of the data relied on this.

A non-parametric test called the Conover-Iman test, or Conover's F-test is used to compare different states in southern India and see if any of them differ significantly from the rest. When the variances between the groups are not equal or when the assumption of normalcy is broken, the test is particularly helpful.

Conover-Iman Test Results for Southern States

The below table shows the result of the Conover-Iman post hoc test conducted on the basis of the Kruskal-Wallis H-test. The pairwise comparison is made between the states: Undivided Andhra-Pradesh-Karnataka, Andhra Pradesh-Tamil Nadu, Andhra Pradesh-Kerala, Karnataka- Kerala, Karnataka-Tamil Nadu, Kerala-Tamil Nadu.

The degree of variation or separation between the medians of two distinct states is shown by each "T" number. Greater absolute "T" values signify more significant variations among the states. When the "T" number is positive, it means that the first state's median is higher than the second state's median; and when it is negative, it means that the first state's median is lower than that of the second state. The adjusted p-value is used when multiple tests are conducted or multiple comparisons are made as this will reduce the chances of the type I error. Adjusted p-values are designed to control familywise error rates. It gives a more conventional assessment of statistical significance in the context of multiple comparisons.

Table 3: Conover-Iman test results

Variables	Post-Hoc Test Results	AP-KA	AP-KL	KA-KL	AP-TN	KA-TN	KL-TN
Number of SHGs	Test Statistic (T)	10.65	17	6.36	6.67	-3.97	-10.33
	Adjusted P Value	4.65e ⁻¹⁴	2.90e ⁻²¹	5.03e ⁻⁰⁸	1.71e ⁻⁰⁸	1.30e ⁻⁰⁴	1.21e ⁻¹³
Amount of Savings	Test Statistic (T)	4.21	7.57	3.36	5.23	1.02	-2.34
	Adjusted P Value	6.18e ⁻⁰⁵	8.26e ⁻¹⁰	7.99e ⁻⁰⁴	2.24e ⁻⁰⁶	1.57e ⁻⁰¹	1.18e ⁻⁰²
Amount of Loan Disbursement	Test Statistic (T)	4.81	8.88	4.07	5.35	0.54	-3.53
	Adjusted P Value	9.10e ⁻⁰⁶	1.14e ⁻¹¹	9.54e ⁻⁰⁵	1.50e ⁻⁰⁶	2.94e ⁻⁰¹	4.97e ⁻⁰⁴
Amount of Outstanding Loans	Test Statistic (T)	5.67	9.5	3.83	6.02	0.34	-3.48
	Adjusted P Value	5.11e ⁻⁰⁷	1.57e ⁻¹²	2.01e ⁻⁰⁴	1.58e ⁻⁰⁷	3.65e ⁻⁰¹	5.67e ⁻⁰⁴
Amount of Non-Performing Assets	Test Statistic (T)	6.07	7.81	1.74	0.23	-5.84	-7.58
	Adjusted P Value	1.33e ⁻⁰⁷	3.82e ⁻¹⁰	4.46e ⁻⁰²	4.11e ⁻⁰¹	2.87e ⁻⁰⁷	8.12e ⁻¹⁰

Source: Calculated from the tables published in various reports of NABARD-Status of Microfinance in India.

Output is generated through R programming. Computed by the researcher.

Note: Significant at 1%

*AP- Undivided Andhra Pradesh, KA-Karnataka, TN-Tamil Nadu, KL-Kerala

The adjusted p-values for all the five economic indicators for all the southern states considered are very small or approximately equal to zero. This shows that there is a highly statistically significant difference in the pairs of states compared. The T-statistic in the above table displays that there are statistically significant differences in the medians between the states compared.

In the case of the Number of SHGs, Undivided Andhra Pradesh's median is higher in comparison to those of Karnataka, Kerala, and Tamil Nadu. Karnataka's median is

greater than Kerala's but Tamil Nadu's median is greater than Karnataka and Kerala. Among the pairwise comparison of states, Undivided Andhra-Pradesh and Kerala showed the highest statistically significant differences, followed by Kerala and Tamil Nadu, Undivided Andhra Pradesh and Karnataka, and Undivided Andhra Pradesh and Tamil Nadu, Kerala and Karnataka. The least statistically significant differences are seen between Karnataka and Tamil Nadu.

As regards the amount of savings, Undivided Andhra Pradesh's median is the highest followed by that of Karnataka, Tamil Nadu, and Kerala. As in the previous case, Undivided Andhra Pradesh and Kerala showed the highest statistically significant differences. Next higher statistically significant differences are seen between Undivided Andhra Pradesh and Tamil Nadu, Undivided Andhra Pradesh and Karnataka, Kerala and Karnataka, and Kerala and Tamil Nadu respectively. The lower statistically significant differences are found between Karnataka and Tamil Nadu.

As far as the amount of loan disbursement and the amount of outstanding loans are concerned, the 'T' statistic result and the order of the 'p-value' pattern were similar to the amount of savings. The value of the median of the undivided Andhra Pradesh is the highest among the southern states followed by Karnataka, Tamil Nadu, and Kerala. Undivided Andhra Pradesh and Kerala showed the highest statistically significant differences, followed by Undivided Andhra Pradesh and Tamil Nadu, Undivided Andhra Pradesh and Karnataka, Karnataka and Kerala, and Kerala and Tamil Nadu respectively. The least statistically significant differences are found between Karnataka and Tamil Nadu.

Undivided Andhra Pradesh's median is higher in comparison to Karnataka, Kerala, and Tamil Nadu in the case of the amount of non-performing assets. Karnataka's median is greater than Kerala's but Tamil Nadu's median is greater than Karnataka and Kerala. Undivided Andhra-Pradesh and Kerala showed the highest statistically significant differences, Followed by Kerala and Tamil Nadu, Undivided Andhra Pradesh and Karnataka, Karnataka and Tamil Nadu, Kerala and Karnataka. The least statistically significant differences are found between Undivided Andhra Pradesh and Tamil Nadu.

The Undivided Andhra Pradesh is significantly different from all the other states of South India in terms of both positive and negative economic indicators. A greater number of SHGs, a Higher amount of Savings, and a larger amount of Loan Disbursement are achieved by the undivided Andhra Pradesh; and it also has a record of greater outstanding loans which may root back to the crisis that the state experienced in the year 2010. Philip Mader, in his article, 'Rise and Fall of Microfinance in India: The Andhra Pradesh Crisis in Perspective', mentions that the deepest crisis event

in microfinance to date was the microfinance crisis that broke out in the Andhra Pradesh (India) in October 2010. It has been commonly believed—incorrectly—to be a sudden event brought on by the actions of the Andhra government. The large debt bubble that Andhra Pradesh experienced, which led to the collapse of Indian microfinance, was the result of longer-term causal processes, it becomes clear when one considers the rise of Indian microfinance. Mader demonstrates how forces inside the microfinance sector themselves were responsible for the crisis rather than cynical political manipulation. However, the government of Andhra Pradesh has taken several initiatives to strengthen the SHGs in the state. The Society for Elimination of Rural Poverty established by the “Department of Rural Development”, Govt. of Andhra Pradesh has come up with several programs like ‘YSR -ASARA’, ‘YSR Sunna Vaddi’, Streenidhi, Mahila Mandal Samakhya, Zilla Samakhya, NRLM-SERP, Unnathi to provide the financial assistance to urban and rural poor SHG women, to support institutional building and sustainable living. These measures have helped the Undivided Andhra Pradesh out of quandary.

SHGs of Tamil Nadu have shown consistent performance with the help of the “Tamil Nadu Corporation of Development for Women” (TNCDW). The IFAD (“International Fund for Agricultural Development”) supports TNCDW in implementing the women’s development project. Under this project, women are supported to form SHGs, trained systematically, helped to build a network through federations, and provided bank linkages to get involved in income-generating activities.

The success of SHGs in Kerala is attributed to the globally known model “Kudumbashree”, which is popularly recognized as the ‘Kerala Model of Development’. The literacy level of women in Kerala, salary structure, women’s active participation in economic activities, and political, and socio-economic conditions within the state have contributed a lot in laying the strong foundation for the success of Self-Help Groups (Kumar et.al, 2016).

Karnataka has come a long way in the SHG movement. The Karnataka government has been vigorously promoting the SHG movement since 2000. Karnataka Evaluation Authority in its research work ‘Study on status of Self-Help Groups (SHGs) under State Rural Livelihood Mission (SRLM) in Karnataka’, 2021, finds out that SHGs are operating well in Karnataka and can bring changes in the lives of the members by empowering them. But the report also focuses on the challenges of the SHGs in the state like- the lack of entrepreneurs in every district, inadequate training in skill development, and product marketing. These could be the major reasons for the greater outstanding loans and non-performing assets.

5. Conclusion

Undivided Andhra Pradesh takes the highest place among the SHGs of southern states in terms of savings group, and loan disbursement, but it also carries a heavy load of outstanding debt. The asset quality is better in Tamil Nadu and Undivided Andhra Pradesh, which have the lowest NPA levels. Of the four states, Kerala has the widest range of deposits, outstanding loans, and NPA percentages. Better asset quality is found in Tamil Nadu and Undivided Andhra Pradesh, whereas financial indicator variability is higher in Karnataka and Kerala. Each state has distinct rewards and drawbacks, emphasizing the need for targeted policy interventions to promote the expansion and sustainability of SHGs in the area.

6. Research Implication

The present study analyses the regional differences between the southern states in terms of economic indicators. This can be used by policymakers, NGOs working towards women's empowerment and poverty reduction, academicians, and research scholars to understand the pattern and reasons for the regional disparity.

7. Limitations and Scope of the Study

The present research is based only on the secondary data for the period of 2010-11 to 2021-22. The southern states are considered for the study. Therefore, there is a further scope for regional analysis of different regions in India. The analysis can also include more parameters that would impact the functioning of SHGs like social indicators, political indicators, and women empowerment indicators, in addition to the economic indicators considered in the present study.

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