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# Growth of SHG-Bank linkage program in India [comparative study-region wise]

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## ABSTRACT

***This paper examines the growth of the SHG-bank linkage program in India and also does a comparative study – region-wise based on the three major variables – savings, credit disbursed and loan outstanding by the SHGs which are further classified as total savings of SHG, average savings per SHG, total credit received by SHG, average credit received per SHG, total loan outstanding and loan outstanding per SHG. The data that has been used during this research is purely secondary data (NABARD's annual report on the status of microfinance in India). The time period chosen is 5 years i.e. 2013-14 to 2017-18 and the six regions that are compared are the Southern region, Northern region, Western region, Eastern region, Central region and Northeastern region. The methods that have been used for the success of this research are - Pearson's correlation and the regression Model. To draw interpretations, various charts and graphs for better and easy comparisons were also used. The findings of this research were that the SBL program was on an increase every year and then reach out to the Southern region was significantly very high and that of the North-Eastern region was very low. It was also found that there is an impact of savings per SHG on the credit received per SHG and there is an impact of savings on the loan outstanding per SHG as well but there is no significant impact of average credit received per SHG on average loan outstanding per SHG.***

***Keywords***— *SHG-bank linkage program, Microfinance, Savings by SHG, Credit disbursed by SHG, Loan outstanding by SHG*

## 1. INTRODUCTION

"Microfinance benefits in India are given essentially by two distinct models viz., SHG-bank linkage model and MFI-bank model. Out of these two models, SHG-bank linkage model has developed as the more predominant model because of its appropriation by formal financial related institutions specifically, Commercial Banks, Regional Rural Banks and Cooperative Banks. Today, the SHG - Bank Linkage Program (SHG - BLP) is the biggest microfinance program as a result of its sheer size and population it contacts."

The self-help groups and bank linkage model was established in1992 by NABARD and since then this concept has only grown and extended in terms of the aid it provides to the rural sector of the population. A large portion of the self-help groups constitutes of the women situated in the rural sector, which impart entrepreneurial skills in them to make them independent and gain a status in the society of India. NABARD is presently operating three bank linkage models with SHGs and NGOs:

- **Model 1:** The bank itself acts as a Self Help Group Promoting Institution (SHPI).
- **Model 2:** Groups are formed by NGOs (in most of the cases) or by government agencies. The groups are nurtured and trained by these agencies.
- **Model 3:** Banks only funding agencies and others like NGO and volunteers are acting like mentoring and monitoring agencies.

There has been a recent transformation in the self-help group and bank linkage model. The model has shifted from a not-for-profit model to a for-profit format. Previously this particular model was discussed as the next big step towards solving the poverty crises in India, but now it is seen as the next big investment opportunity in India.

## 2. REVIEW OF LITERATURE

**(Yadav, 2014)**From this article we understand the need and importance of Microfinance in the Rural Sector of India. Microfinance can be used as a tool to help the poor to gain access to small funds through which they can manage their basic needs and develop a basic standard of living. The small loans provided by the banking systems has reached remote areas as microfinance through the Self-help groups, which have strategically distributed the funds to needy, helping the poor to a better livelihood.

**(Jain & Dr. Avinash Chiranjeev, 2012)**From this article we learn that right after nationalization the banking institutions are making efforts to reduce poverty and help the poor. They have developed a Self-help group and bank linkage model. In this model the banks provide microfinance to the SHGs in those parts of India where most of the population is living below the poverty line.

**(Nikita, 2014)**This article defines the wide scope of microfinance and microcredit. The author says that though the amounts distributed through microfinance and microcredit are minimal but have life changing effect on the lives of people who do not have access to clean drinking water, two meals a day and a shelter above their head. Thus, the article speaks about the importance and potential of microfinance and microcredit.

**(Dr. Shravan Kumar & Vishwaraj Solanki, 2012)**This article speaks about the good working and implementation of microfinance as a tool to help reduce poverty in India. It also speaks about how various banking institutions intensively spread their branches to reach out to the poor and make their contribution. The banks have efficiently harnessed SHGs as an institution through which their funds can reach the different corners of the country.

**(Khurshid Ahmad Bhat & Ruchi Singh Maurya, 2013)**This article is pertaining to the state of Jammu and Kashmir. The author states how microfinance has reached in the deserted parts of the state and has benefited them in life changing manner. Due to the political instability in J&K, the government could not reach all the parts of the state. But then people formed SHGs in the state and started to work together towards the common problems they faced.

**(Kumar, 2014)**The Self-help groups provide those people with finance who are not eligible to attain a loan from banks as they do not have anything to mortgage with the bank. The SHGs are an informal and flexible approach to credit the needs of the poor; it helps the poor to acquire loans in an easy way with minimal burden. They use pooled resources of people to attain an objective common to all.

**(Goyal, 2017)**The reduction in the number of SHGs savings linked with Banks noticed in 2012-13 has been reversed during the year 2013-2014 with a marginal increase of about 2%. During the year 2015-16, 18.32 lakh SHGs were sanctioned fresh loans which is about 13% increase over 2014-15. The share of exclusive women SHGs in the total number of SHGs linked to banks stands at 85.57%. This is a clear indication that the self-help groups have been making significant contributions in the development of women especially in the rural sector. Commercial Banks accounted for about 2/3$^{rd}$ of the bank loan outstanding under SHG-BLP.

**(Tandon, 2016)**The growth of SHGs have particularly helped in the building of the women entrepreneurship who are adult women running their own businesses independently. Though the scale of operations may not be large but this concept would promote equality and cause development of the status of women in India. The social evils against women have also reduced by the introduction of this new concept. Women have gained power and have lost the necessity to depend on others. Also, in most of the families, the income earned by the male does not serve the entire family. In such cases it would be ideal for women to also start earning.

**(Das, 2012)**The poor sector of the population are considered as a non-bankable, as they are not capable enough to attain a credit from the bank due to lack of security. The banks are not ready to take risk by lending money to the poor. Due to the above failure of institutions of helping the poor, they were forced to borrow money from common money-lenders who exploited them by charging a very high rate of interest against the loan they provide. As a remedy to this two channels were emerged by the NABARD – self-help groups and micro-finance institutions. Both these channels are informal in nature and are able to provide flexible credit to the poor. They together were able to reduce poverty, helped generate income, empowered women, reduced child mortality, better maternal health and better immune system through quality nutrition.

**(Poddar, 2013)**The self-help groups have brought a drastic change in the lives of women living in the rural areas. These self-help groups have empowered women by providing them with funds through which they could start their own small businesses. This made them independent, gave them a sense of equality, respect in the society and a hope to live life better. The self-help groups helped the women to challenge the existing norms and culture, to effectively promote their well-being. The self-help groups have also managed to increase the social awareness about the wrongs done against women in the rural areas and the remedies of the same that can be adopted by the women against whom any wrong is been done.

## 3. RESEARCH DESIGN

### 3.1 Objectives of the study

- To study about the growth of self-help groups and bank linkage model in India.
- To compare the reach of the SHG-Bank Linkage program in the six regions – North, South, East, West, Central and North-East.
- To understand the relationship between savings, credit disbursed and loan outstanding by the SHGs.
- To examine the overall growth rate of savings per SHG, credit disbursed per SHG and loan outstanding per SHG.

### 3.2 Research gap

SHG – Bank Linkage program has neither reached out majority of the poor, nor in proportionate in all the states of India. Despite the fact that about 53.5 percent of the absolute poor in India live in Orissa, Bihar, Chhattisgarh, Jharkhand, Uttaranchal, Madhya Pradesh and Uttar Pradesh states, these states are falling behind more in empowering access to credit to the poor through SBL program. Higher concentration of SBL program is accounted for in the Southern region, especially in Tamil Nadu and Andhra

Pradesh states, than contrasted with other regions and states. Hence, the situation warrants examining how these six regions differ in the reach out by the SBL program. Also, there are many researches that talk about microfinance as a whole but there is a need to give more importance to SHG Bank linkage model and its availability and spread in the six different regions in India in specific.

### 3.3 Scope of the study

The aim of my research is to study and compare the growth of self-help groups through the microfinance bank linkage model. SHG-bank linkage model provide easy credits and other value added services like savings account and insurance to the poor section of the population where the banking system helps them to work effectively and efficiently. It is used to understand the spread of the SHG-bank linkage model in the six regions that are taken into consideration. My study would help us to understand how these linkage models would help the poor to survive in their present conditions. Such facilities would make the poor capable of self-earning, self-business and self-asset. The six variables that are taken into consideration in this study are total savings of SHGs, savings per SHG, total credit received by SHGs, average credit received per SHG, total loan outstanding and loan outstanding per SHG.

Secondary sources would be used to collect data in this research. The major source would be the reports issued by NABARD i.e., Status of Microfinance. The various tools that are going to be used are:

- Tables and Graphs
- Correlation
- Regression Model.

### 3.4 Research methodology

**3.4.1 Variables:** There are six variables that will be taken into consideration for the purpose of this study. These six variables are – total savings by SHG, average savings per SHG, total credit disbursed by SHG, average credit disbursed per SHG, total loan outstanding by SHG and average loan outstanding per SHG.

**3.4.2 Data Collection:** Only secondary sources will be used to collect data in this study. It would be collected from the NABARD's annual report on the status of microfinance in India. Period for this study will be five years i.e., from 2013-14 to 2017-18 and the six regions that will be compared are the Southern region, Northern region, Western region, Eastern region, Central region and North-Eastern region.

**3.4.3 Data Analysis:** To analyze the data and draw interpretations, various charts and graphs for better and easy comparison would be used. The statistical tools used would be Pearson's correlation and regression Model (through SPSS).

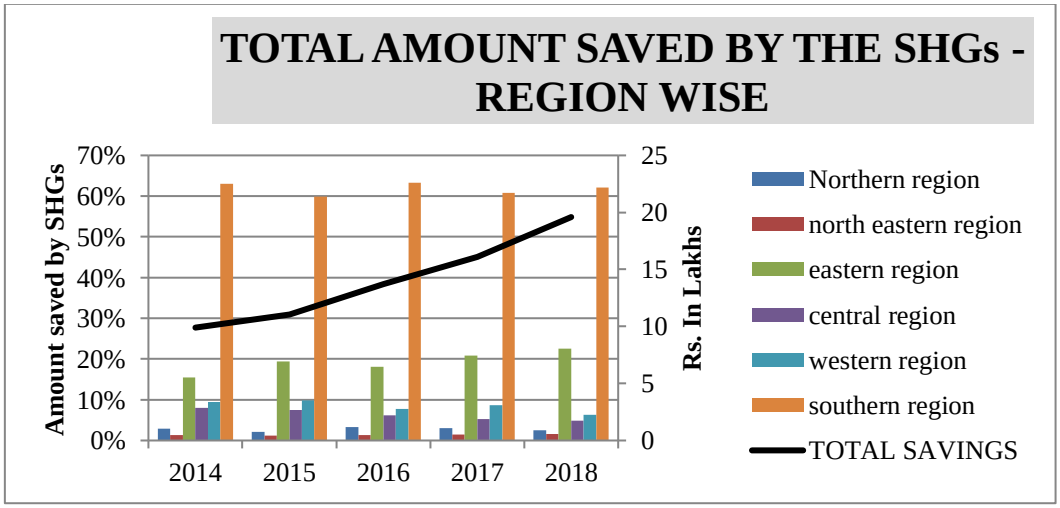
### 3.5 Limitations of the study

- The study is based on the information available from the Status of Microfinance reports issued by NABARD and considers India as a whole which means that the accuracy of the results may be affected.
- It is often difficult to determine the quality of the data in case of it being secondary in nature.

## 4. RESULTS AND DISCUSSIONS

**Table 1: Total Amount Saved by the SHGS - Region Wise (Amount in lakhs)**

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Northern region | 2.86% | 2.17% | 3.29% | 3.08% | 2.52% |
| north eastern region | 1.30% | 1.18% | 1.39% | 1.42% | 1.64% |
| eastern region | 15.42% | 19.47% | 18.14% | 20.88% | 22.55% |
| central region | 7.99% | 7.45% | 6.14% | 5.21% | 4.87% |
| western region | 9.40% | 9.87% | 7.72% | 8.61% | 6.36% |
| southern region | 63.03% | 59.87% | 63.32% | 60.79% | 62.06% |
| **Total Savings** | **989741.54** | **1105984.07** | **1369139.01** | **1611422.64** | **1959211.52** |

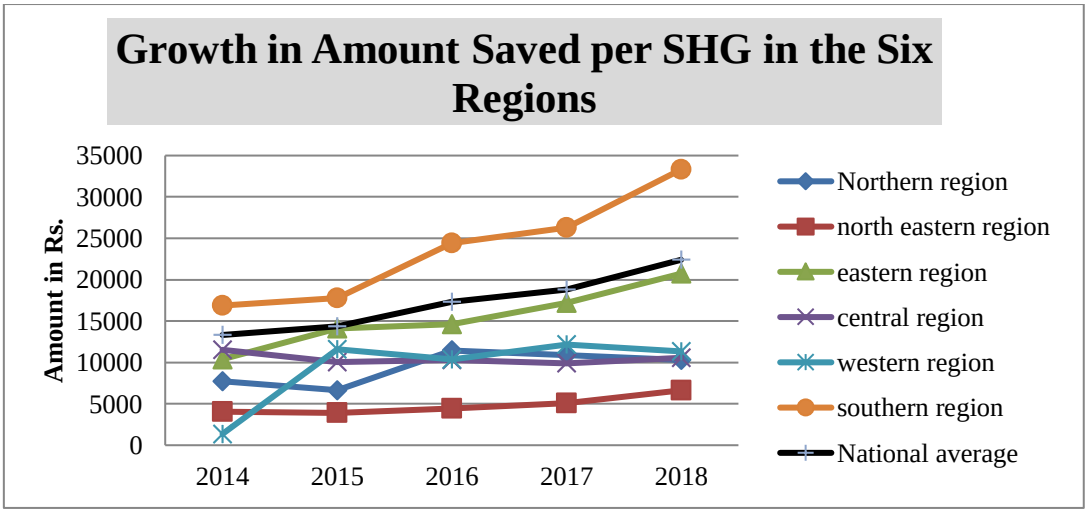


**Interpretation:** From the above statistics and graph it is seen clearly that, southern region was able to mobilize more than 50% of the total savings throughout the study period which is higher in all the 5 years when compared to the other regions. The lowest contribution was by the north-eastern region, which never exceeded 3%. Central region showed a gradual decrease in its share from 7.99% (Rs.79055.81) in 2014 to 4.87% (Rs.95385.11) in 2018. Total savings kept on increasing year after year from Rs.989741.54 in 2014 to Rs.1959211.52 in 2018 which is shown in the above graph with the help of a trend line moving upwards.

**Table 2: Average Savings per SHG Area WISE (Amount in rupees)**

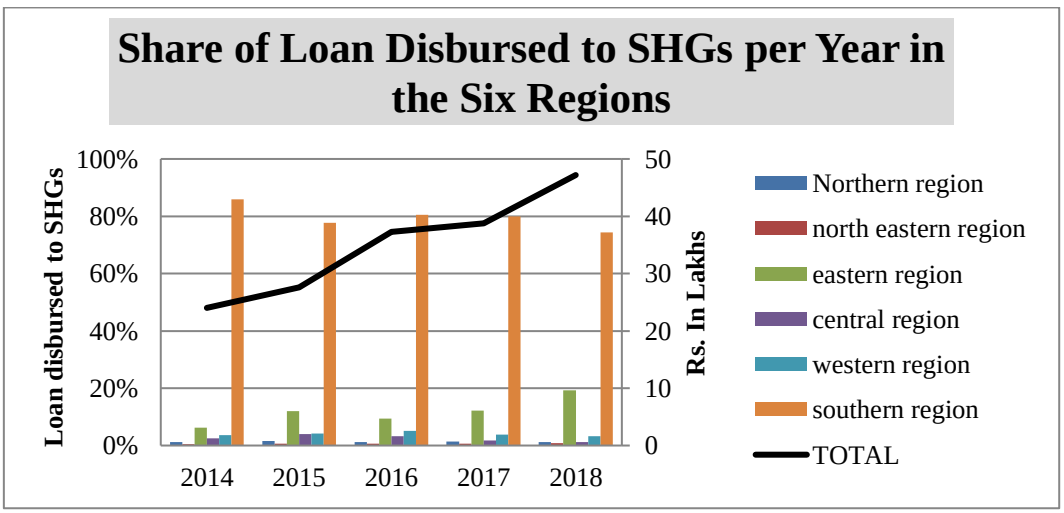
| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Northern region | 7747.57 | 6648.62 | 11440.13 | 10865.35 | 10293.52 |
| north eastern region | 4072.77 | 3898.99 | 4426.55 | 5068.75 | 6632.66 |
| eastern region | 10393.32 | 14124.00 | 14608.02 | 17231.21 | 20732.23 |
| central region | 11525.36 | 10078.88 | 10311.82 | 9887.65 | 10572.24 |
| western region | 1367.41 | 11594.72 | 10382.98 | 12159.93 | 11362.26 |
| southern region | 16877.91 | 17801.30 | 24448.95 | 26302.37 | 33316.75 |
| **Total Savings** | **13321.78** | **14368.15** | **17324.29** | **18787.99** | **22405.23** |




**Interpretation:** Savings per SHG in the southern region was higher than the national average as well as the other five regions, throughout the study period and demonstrated a growing trend. Amount saved per SHG in the north-eastern region was the lowest when compared to the other regions though amount in this region kept increasing gradually except a decline during the financial year 2014-15. Savings showed a sudden increase in the western region from 1367.41 in 2014 to 11594.72 in 2015. SHGs in the Eastern and Southern regions indicate a steady increase in savings. Except Southern region, savings per SHG in other five regions was lower than the national level average.

**Table 3: Total Amount of Loan Disbursed To the SHGs**

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Northern region | 1.17% | 1.55% | 1.30% | 1.48% | 1.15% |
| north eastern region | 0.53% | 0.57% | 0.59% | 0.73% | 0.76% |
| eastern region | 6.29% | 11.95% | 9.37% | 12.20% | 19.26% |
| central region | 2.57% | 4.02% | 3.19% | 1.75% | 1.19% |
| western region | 3.60% | 4.24% | 5.06% | 3.84% | 3.29% |
| southern region | 85.84% | 77.66% | 80.49% | 80.00% | 74.36% |
| **Total** | **2401735.9** | **2758231.06** | **3728690.09** | **3878115.64** | **4718587.61** |

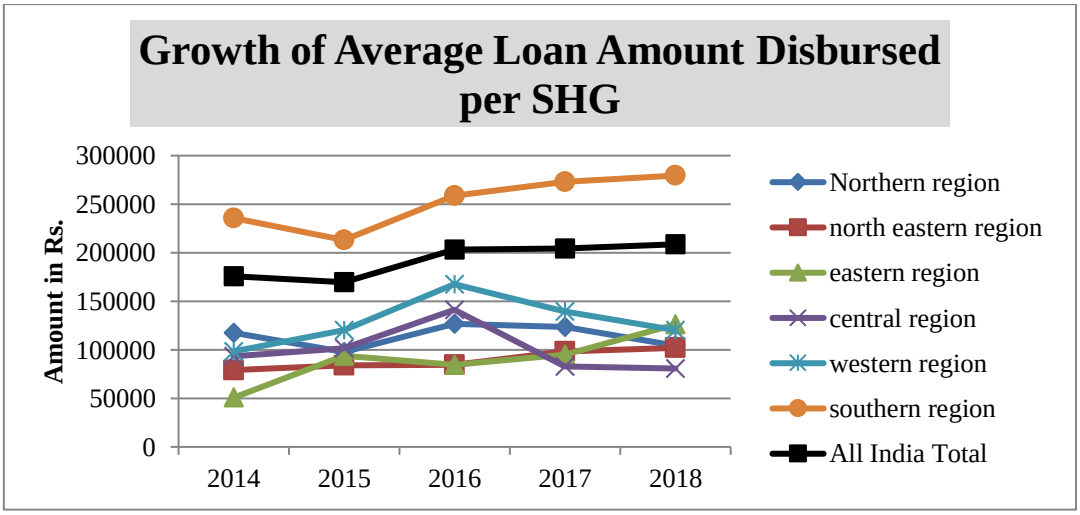


**Interpretation:** The above graph shows the amount of loan disbursed to SHGs under the SBL program. Total loan disbursed to the SHGs during 2013-14 was Rs.2401735.9 at the all India level and during 2017-18 it was Rs.4718587.61. More than 75% of the total loan was disbursed in the Southern region and was showing an increasing trend – from Rs.2141972.13 in 2014 to Rs.3508834.10 in 2018. The second highest receiver was the eastern region. Southern region received more than 60% in all the years taken for this study. The lowest receiver was the northern region as the loan disbursed to this region never increased more than 2% in all the five years.

**Table 4: Average Loan Disbursed Per SHG (Amount in RUPEES)**

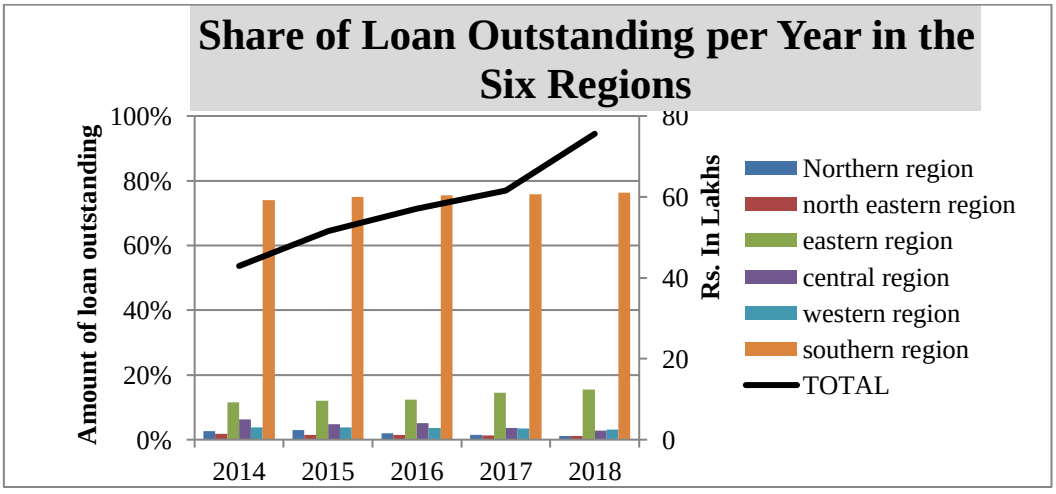
| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Northern region | 117268.84 | 97777.16 | 126746.29 | 123293.73 | 104321.66 |
| north eastern region | 79124.99 | 84055.66 | 84374.93 | 98134.28 | 102012.54 |
| eastern region | 50782.64 | 93690.08 | 84709.02 | 95193.57 | 126165.24 |
| central region | 93092.49 | 101535.86 | 141271.84 | 82864.04 | 80732.45 |
| western region | 98403.63 | 120278.58 | 167635.82 | 139310.65 | 120257.50 |
| southern region | 235717.59 | 213083.43 | 258995.79 | 272926.33 | 279454.10 |
| **All India Total** | **175768.36** | **169608.11** | **203495.24** | **204313.51** | **208682.54** |




**Interpretation:** Comparing the six regions, credit per SHG in the southern region was higher than the national average as well as the credit per SHG of the other five regions. The national average and the average credit per SHG for the southern region was increasing every year other than a small drop in the year 2015. Credit per SHG in the Northern, North-East, Western, Central and Eastern region was lower than the national average during the study period. Credit per SHG in the North- Eastern region increased over the years and showed an upward trend.

**Table 5: Total amount of loan outstanding region wise (Amount in lakhs)**

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Northern region | 2.56% | 2.99% | 2.03% | 1.48% | 1.15% |
| north eastern region | 1.76% | 1.40% | 1.55% | 1.35% | 1.18% |
| eastern region | 11.52% | 11.97% | 12.32% | 14.43% | 15.45% |
| central region | 6.28% | 4.82% | 5.07% | 3.59% | 2.86% |
| western region | 3.82% | 3.86% | 3.56% | 3.39% | 3.14% |
| southern region | 74.06% | 74.96% | 75.47% | 75.75% | 76.22% |
| **Total** | **4292752.4** | **5154546.14** | **5711923.47** | **6158130.36** | **7559845.12** |

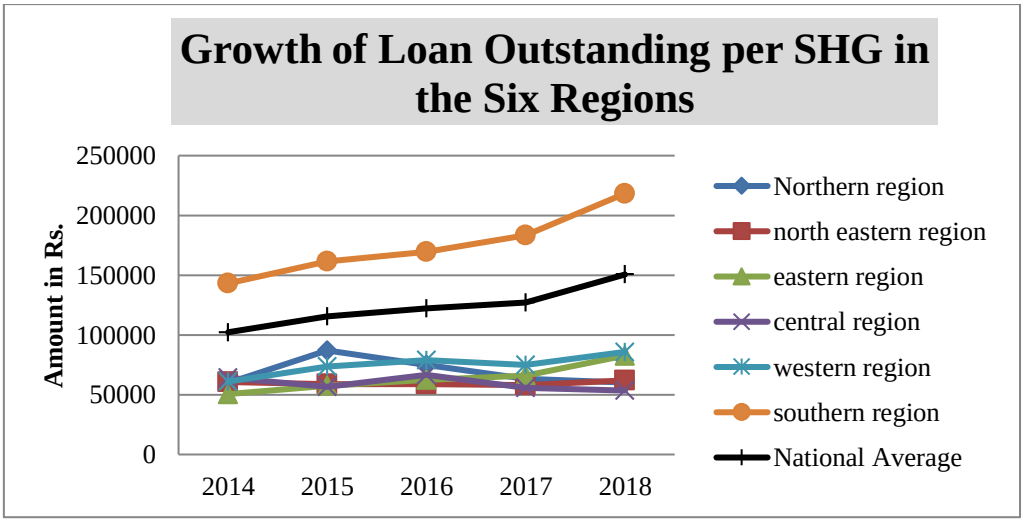


**Interpretation:** Highest loan outstanding against SHGs per year was in the Southern region i.e., it was above 70% in all the five years taken under consideration for this study. During 2013-14, it was 74.06% and it slightly grew to 76.22% during the financial year 2017-18. The second highest share of outstanding was with the Eastern region – from 11.52% in 2013-14 to 15.45% during 2017-18. The share of outstanding against SHGs was least in the North-East region (less than 2% of the total) throughout the study period. Loans outstanding in the central region reduced from 6.28% in 2014 to 2.86% in the financial year 2018.

**Table 6: Average loan outstanding per SHG (Amount in rupees)**

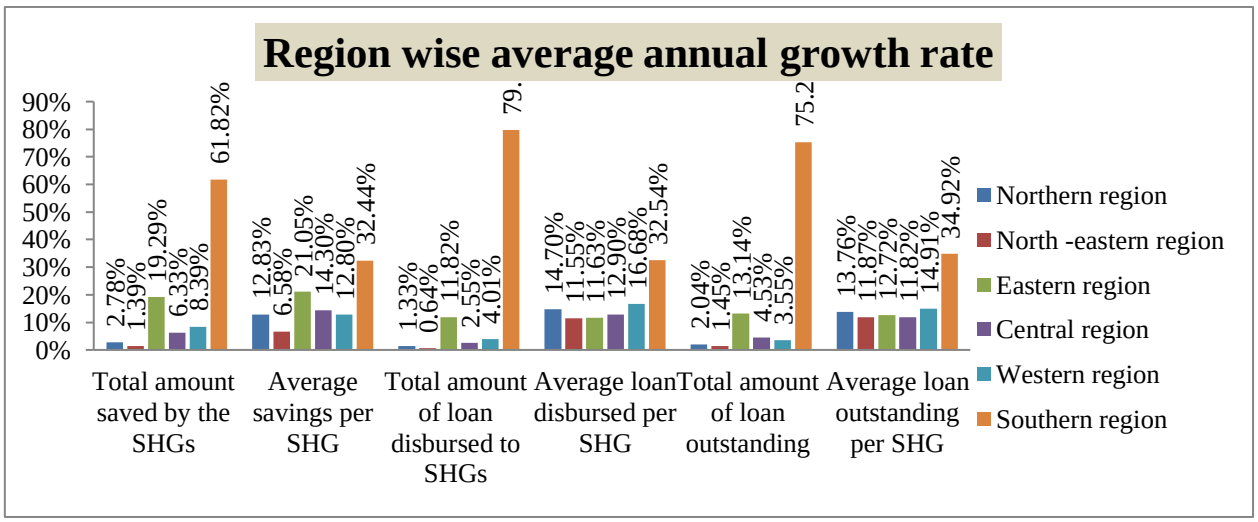
| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Northern region | 59840.24 | 87035.79 | 74912.11 | 63352.26 | 60143.88 |
| north eastern region | 60512.58 | 58686.69 | 58645.59 | 58063.91 | 61990.70 |
| eastern region | 50509.02 | 57704.05 | 62230.55 | 66147.86 | 82715.12 |
| central region | 64231.69 | 56733.27 | 66603.57 | 55562.87 | 53457.91 |
| western region | 60981.85 | 73411.73 | 78824.71 | 75120.49 | 85840.16 |
| southern region | 143137.28 | 161674.22 | 169498.78 | 183562.04 | 218324.47 |
| **National Average** | **102273.21** | **115361.20** | **122242.39** | **127016.62** | **150583.79** |




**Interpretation:** Highest loan outstanding per SHG was observed in the Southern region and the amount outstanding per SHG was higher than the national average throughout the study period and was increasing every year. During 2014, outstanding per SHG in the Southern region was Rs.143137.28 and it soared to Rs.218324.47 per SHG during the financial year 2017-18. Outstanding per SHG in the Northern, North-East, Western, Central and Eastern region were lower than the national average during the study period. Outstanding per SHG was lowest in the Eastern region in 2014 (Rs.50509.02). During the financial year 2018, outstanding per SHG was lowest in the Central region (Rs.53457.91).

**Table 7: Region wise average annual growth rate**

| | Northern region | North-eastern region | Eastern region | Central region | Western region | Southern region |
|---|---|---|---|---|---|---|
| Total amount saved by the SHGs | 2.78% | 1.39% | 19.29% | 6.33% | 8.39% | 61.82% |
| Total amount of loan disbursed to SHGs | 1.33% | 0.64% | 11.82% | 2.55% | 4.01% | 79.67% |
| Total amount of loan outstanding | 2.04% | 1.45% | 13.14% | 4.53% | 3.55% | 75.29% |
| Average savings per SHG | 12.83% | 6.58% | 21.05% | 14.30% | 12.80% | 32.44% |
| Average loan disbursed per SHG | 14.70% | 11.55% | 11.63% | 12.90% | 16.68% | 32.54% |
| Average loan outstanding per SHG | 13.76% | 11.87% | 12.72% | 11.82% | 14.91% | 34.92% |



**Interpretation:** During the study period, Southern region registered highest average annual growth rate of total savings, which was growing at 61.82% per annum followed by eastern region (19.29%) and least growth rate of savings was achieved by the North-Eastern region (1.39%) . Highest growth rate in the savings per SHG was also achieved by the Southern region (32.44%), followed by the Eastern region (21.05%) and the lowest rate of growth in savings per SHG is in the North-Eastern region (6.68%). Growth rate of loan received per SHG was highest in the Southern region with 32.5% and lowest rate of 11.55% was demonstrated by the North-Eastern region. Rate 3of increase in loan outstanding per SHG was highest in Southern region with 34.92% increase every year. The total loan outstanding in the Northern region was 2.04% less than the growth rate of outstanding per SHG, which was 13.76% per annum. Similar is the case with the North-Eastern region, Central and Western region. In the Southern region, the behavior was the opposite, i.e., rate of growth of total outstanding was higher (75.29%) than the growth rate of outstanding per SHG (34.92%). Growth rate of total loan outstanding and outstanding per SHG was lowest in the North-Eastern region (1.45%) and the Central region (11.82%) respectively.

## 5. PEARSON'S CORRELATION

How the three parameters - Average savings per SHG, Average credit per SHG and Average loan outstanding per SHG correlate with each other, was examined using Pearson's correlation method. Correlation estimates the strength of the relationship between two variables.

### 5.1 Average savings per SHG and Average credit per SHG

| | | Average savings per SHG | Average loan outstanding per SHG |
|---|---|---|---|
| Average savings per SHG | Pearson Correlation | 1 | .886* |
| | Sig. (2-tailed) | | .046 |
| | N | 5 | 5 |
| Average loan outstanding per SHG | Pearson Correlation | .886* | 1 |
| | Sig. (2-tailed) | .046 | |
| | N | 5 | 5 |

*. Correlation is significant at the 0.05 level (2-tailed).

Average savings per SHG shows a strong positive correlation with Average credit per SHG (r = 0.886). The positive correlation indicates that when Average savings per SHG increases, Average credit per SHG also increases. In this case the significant value is less than 0.05 (p = 0.046<0.05) therefore there is a statistically significant correlation between the two variables.

### 5.2 Average savings per SHG and Average loan outstanding per SHG

| | | Average savings per SHG | Average loan outstanding per SHG |
|---|---|---|---|
| Average savings per SHG | Pearson Correlation | 1 | .976** |
| | Sig. (2-tailed) | | .005 |
| | N | 5 | 5 |
| Average loan outstanding per SHG | Pearson Correlation | .976** | 1 |
| | Sig. (2-tailed) | .005 | |
| | N | 5 | 5 |

**. Correlation is significant at the 0.05 level (2-tailed).

Average savings per SHG shows a strong positive correlation with Average loan outstanding per SHG (r = 0.976). The positive correlation indicates that when Average savings per SHG increases, Average loan outstanding per SHG also increases. In this case the significant value is less than 0.05 (p = 0.005<0.05) therefore there is a statistically significant correlation between the two variables.

### 5.3 Average credit received per SHG and Average loan outstanding per SHG

| | | Average savings per SHG | Average loan outstanding per SHG |
|---|---|---|---|
| Average savings per SHG | Pearson Correlation | 1 | .778 |
| | Sig. (2-tailed) | | .121 |
| | N | 5 | 5 |
| Average loan outstanding per SHG | Pearson Correlation | .778 | 1 |
| | Sig. (2-tailed) | .121 | |
| | N | 5 | 5 |

***. Correlation is significant at the 0.05 level (2-tailed).

Average credit received per SHG shows a strong positive correlation with Average loan outstanding per SHG (r = 0.778). The positive correlation indicates that when Average credit received per SHG increases, Average loan outstanding per SHG also increases. In this case the significant value is more than 0.05 (p =0.121>0.05) therefore there is a statistically insignificant correlation between the two variables.

## 6. REGRESSION

H0: There is no significant impact of average savings per SHG on average credit received per SHG.

H1: There is a significant impact of average savings per SHG on average credit received per SHG.

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Average savings per SHG[b] | . | Enter |

a. Dependent Variable: Average credit received per SHG
b. All requested variables entered.

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .886[a] | .784 | .712 | 9763.56248700000000 |

a. Predictors: (Constant), Average savings per SHG

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1040253688.000 | 1 | 1040253688.000 | 10.912 | .046[b] |
| | Residual | 285981457.300 | 3 | 95327152.430 | | |
| | Total | 1326235146.000 | 4 | | | |

a. Dependent Variable: Average credit received per SHG

b. Predictors: (Constant), Average savings per SHG

**Coefficients[a]**

| Model | | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | T | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | 115759.347 | 23599.969 | | 4.905 | .016 |
| | Average savings per SHG | 4.444 | 1.345 | .886 | 3.303 | .046 |

a. Dependent Variable: Average credit received per SHG

From the above model summary it is seen that the value of R square is 0.784 which means that **78.4%** of change in the Average credit per SHG was attributed to the variations in the Average savings per SHG. The ANOVA table indicates that the regression model predicts the dependent variable significantly well. The statistical significance in this table is **0.046** which is less than 0.05 (0.046<0.05) which indicates that the null hypothesis is rejected i.e., there is a significant impact of average savings per SHG on average credit received per SHG. In other words, overall, the regression model is a good fit for this data. With the help of the coefficients table a regression equation can be formed. In this case the regression equation will be: **Y=115759.347+4.444X.**

H0: There is no significant impact of average loan outstanding per SHG on average savings per SHG.

H1: There is a significant impact of average loan outstanding per SHG on average savings per SHG.

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Average loan outstanding per SHG[b] | . | Enter |

a. Dependent Variable: Average savings per SHG
b. All requested variables entered.

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .976[a] | .952 | .936 | 920.745515900000000 |

a. Predictors: (Constant), Average loan outstanding per SHG

**ANOVA[a]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 50139651.190 | 1 | 50139651.190 | 59.143 | .005[b] |
| | Residual | 2543316.915 | 3 | 847772.305 | | |
| | Total | 52682968.110 | 4 | | | |

a. Dependent Variable: Average savings per SHG
b. Predictors: (Constant), Average loan outstanding per SHG

**Coefficients[a]**

| Model | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|
| 1 (Constant) | -7351.830 | 3224.310 | | -2.280 | .107 |
| Average loan outstanding per SHG | .199 | .026 | .976 | 7.690 | .005 |

a. Dependent Variable: Average savings per SHG

From the above model summary it is seen that the value of R square is 0.952 which means that **95.2%** of change in the Average savings per SHG was attributed to the variations in the Average loan outstanding per SHG.

The ANOVA table indicates that the regression model predicts the dependent variable significantly well. The statistical significance in this table is **0.005** which is less than 0.05 (0.005<0.05) which indicates that the null hypothesis is rejected i.e., there is a significant impact of average loan outstanding per SHG on average savings per SHG. In other words, overall, the regression model is a good fit for this data.

With the help of the coefficients table a regression equation can be formed. In this case the regression equation will be: **Y=-7351.83+0.199X**.

H0: There is no significant impact of average credit received per SHG on average loan outstanding per SHG.
H1: There is a significant impact of average credit received per SHG on average loan outstanding per SHG.

**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | Average credit received per SHG[b] | . | Enter |

a. Dependent Variable: Average loan outstanding per SHG
b. All requested variables entered.

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .778[a] | .605 | .474 | 12896.72890999999800 |

a. Predictors: (Constant), Average credit received per SHG

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 765319351.400 | 1 | 765319351.400 | 4.601 | .121[b] |
| | Residual | 498976849.400 | 3 | 166325616.500 | | |
| | Total | 1264296201.000 | 4 | | | |

a. Dependent Variable: Average loan outstanding per SHG
b. Predictors: (Constant), Average credit received per SHG

**Coefficients[a]**

| Model | Unstandardized Coefficients B | Unstandardized Coefficients Std. Error | Standardized Coefficients Beta | T | Sig. |
|---|---|---|---|---|---|
| 1 (Constant) | -22640.300 | 68369.986 | | -.331 | .762 |
| Average credit received per SHG | .760 | .354 | .778 | 2.145 | .121 |

a. Dependent Variable: Average loan outstanding per SHG

From the above model summary it is seen that the value of R square is 0.605 which means that **60.5%** of change in the Average loan outstanding per SHG was attributed to the variations in the Average credit received per SHG.

The ANOVA table indicates that the regression model predicts the dependent variable significantly well. The statistical significance in this table is **0.121** which is more than 0.05 (0.121>0.05) which indicates that we accept the null hypothesis i.e., there is no significant impact of average credit received per SHG on average loan outstanding per SHG. In other words, overall, the regression model is not a good fit for this data.

With the help of the coefficients table a regression equation can be formed. In this case the regression equation will be: **Y=-22640.30+0.760X.**

Therefore, from the above it is clear that the three regression equations are:

Savings: Y=115759.347+4.444X

Credit: Y=-22640.30+0.760X

Loan Outstanding: Y=-7351.83+0.199X

## 7. SUMMARY OF FINDINGS

The tools that were used in this research work were- graphs, correlation and regression. From the various graphs of the six variables it can be understood that the number of SHGs in the SBL Program was on the increase every year, the financial performance of these SHGs was not so. Reach out and concentration of the SHG bank linkage model was found to be uneven among the six regions, during the study period. The reach out to the Southern region was significantly very high and was significantly low in the northern North-Eastern region. The reach of the SHG bank linkage model in other regions was significantly very lower than the Southern region. Share of southern region was also higher than the national average in all the six parameter.

The next tool that was used was correlation. In this, how the three parameters - Average savings per SHG, Average credit per SHG and Average loan outstanding per SHG correlate with each other was examined using Pearson's correlation method. From the test performed it was found that these three variables are strongly and positively correlated to one another. In this case, the significant level is taken at 0.05 or 5%. It was also found out that the correlation between average credit received per SHG and Average loan outstanding was statistically insignificant i.e. it has just occurred due to chance.

The last tool that was used here was the regression model. This model was used to find out the relationship or dependency of one variable on the other independent variable. Here also the significant value was considered as 0.05. After the test was performed, it was found that there is an impact of savings per SHG on the credit received per SHG and there is an impact of savings on the loan outstanding per SHG as well. It was also found that there is no significant impact of average credit received per SHG on average loan outstanding per SHG.

## 8. CONCLUSION AND SUGGESTIONS

Financial inclusion is one important thing through which the welfare of the poor people can be improved. Also, some poor people use borrowings in order to be entrepreneurs and thus remove themselves from poverty. A main conclusion of this paper would be that the SHG-bank linkage is widely predominant in the southern region and is the least spread the north-east region. It can also be concluded that through the years, the SHG- bank linkage is increasing in all the regions which means that it is helping to reduce poverty in India. According to me, the followings things can be kept in mind and also put to action in order to strengthen the SHG-Bank linkage Program in India:

- **Encouraging SHGs in Excluded Regions:** The spread of SHGs in North, Eastern and North-Eastern Region is little poor. One of the many reasons for this is the weak banking network and social backwardness. Therefore, there is a need to evolve SHG models suited to the local needs.
- **Capacity building of Government functionaries:** There is a need for sufficient training for local bank staff on SHG concept.
- **Check on corruption while sanctioning and upgrading the loan:** The commission and corruption at grass root level leads to selection of wrong people for loan, higher defaults, misutilization of loans.
- **Identification of poor by the NABARD**: NABARD has identified 16 States with large population of the poor, but exhibiting low performance in implementation of the program. The ongoing efforts of NABARD to upscale or uplift the program in the identified States need to be given a fresh start.
- **Transparency in maintenance of records:** Banks, with the help of NABARD, should come up with a common checklist for all SHGs with very simple record keeping.
- **ICT technology and product innovation:** In the ever changing technology there is good scope and need for ICT tools to reduce cost of financial inclusion. This needs to be sufficiently explored for the benefit of both the banks and rural SHG members.

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