

## CHAPTER 4

# ANALYSIS OF WOMEN EMPOWERMENT THROUGH SELF HELP GROUP BANK LINKAGE PROGRAMME

### 4.1 Introduction

In the previous chapters an analysis of the performance of SBLP in India and its six regions, the northeastern region and Assam was done based on four parameters namely ‘savings of SHG with banks’, ‘loan disbursed by banks to SHGs’, ‘SHG loan outstanding with banks’ and ‘NPA of SHG loans’. A study was also made to analyze the roles CMB, RRB and COB’s performance in promoting SBLP. As such this chapter tries to make an analysis of women empowerment through SBLP promoted by AGVB.

The chapter is divided into 6 sections. The first section is the introduction while the second section discusses the methodology. Section 3 discusses the measures of empowerment and section 4 discusses the status of women post joining SHG. Section 5 discusses the correlation between different types of empowerment. And section 6 concludes the chapter.

### 4.2 Methodology

This section deals with the method of data collection and analysis of the collected data. The objective **“To analyze the role of microfinance in empowering rural poor through Assam Gramin Vikash Bank’s SHG Bank Linkage Programme”** is sought to be fulfilled through the analysis of the primary data. The unit of the study comprises of the selected members of SHG linked to AGVB under SBLP. A structured

questionnaire is used for collecting responses and for drawing conclusions for the study. The samples for the study are selected from five districts namely Barpeta, Baksa, Nalbari, Kamrup (R), Kamrup (M) and of the Lower Brahmaputra Valley. A total of 340 samples are collected from 340 households from 170 SHG.

For analysing the objective, data from the Annexure C in Part A of the questionnaire that is designed to analyse the empowerment of women through SHG are used. The empowerment is analysed in four dimensions, namely economic empowerment, educational empowerment, social empowerment and political empowerment. A few assertions for each dimension are identified--- economic empowerment has 12 assertions, educational empowerment has 8 assertions, social empowerment has 10 assertions and finally, political empowerment has 6 assertions. The respondents are asked to express their opinion (either agreement or disagreement) in a five-point Likert- Scale on the statements (assertions) on empowerment. These statements are checked for internal reliability and consistency using Cronbach's Alpha Coefficient and then the exploratory factor analysis is used.

To measure if the AGVB is successful in promotion SBLP and eventually empowering the rural poor descriptive statistics is used. The percentage of people in agreement to empowerment post joining SHG is given in terms of frequency. Further, the Pearson's correlation coefficient is used to check the relationship between the various dimensions of empowerment.

### **4.3 Measures of Empowerment**

Empowerment can be of various types depending on the needs of society. For the present study, the basic indicators of empowerment namely economic empowerment,

educational empowerment, social empowerment and political empowerment are analysed. An analysis of these four dimensions of empowerment can give a picture of the status of women empowerment in rural India particularly in the context of the lower Brahmaputra Valley of Assam. As such the results for the same are presented in the sections that follow.

#### 4.3.1 Measuring the Internal Consistency and Reliability of the Construct

In order to measure the consistency and reliability of the instruments used for the present study, Cronbach's alpha ( $\alpha$ ) is calculated. As a rule of thumb, depending on the nature of a study, a reliability coefficient of 0.9 is considered excellent while a coefficient of 0.8 and 0.7 as very good and as adequate respectively.

**Table 4.1: Overall Reliability Statistics for Constructs for Empowerment**

<b>Reliability Statistics</b>	<b>Economic Empowerment</b>	<b>Educational Empowerment</b>	<b>Social Empowerment</b>	<b>Political Empowerment</b>
<b>Cronbach's Alpha</b>	.815	.805	.737	.811
<b>No. Of Items</b>	12	8	10	6
<b>No. Of Cases</b>	340	340	340	340

*Source: Calculated by the author from Primary data*

As seen from table 4.1 Cronbach Alpha ( $\alpha$ ) is estimated to be .815 for all the 12 assertions relating to **Economic Empowerment**; .805 for all the 8 assertions relating to **Educational Empowerment**; .737 for all the 10 assertions relating to **Social**

**Empowerment** and .811 for all the 6 assertions relating to **Political Empowerment**. This can be considered to be in a very good range. Since Cronbach's alpha ( $\alpha$ ) is a test of reliability, therefore the least correlated items are usually deleted. But the decision to delete the variables is based on their contribution to the overall research. Hence the variable loading, communality, total variance explained needs to be taken into consideration before deleting any least correlated item. The overall value of alpha ( $\alpha$ ) for **Economic Empowerment, Educational Empowerment, Social Empowerment** and **Political Empowerment** indicates that the assertions made respectively for each form of empowerment positively contribute to the overall reliability of the study. As such the assertions are retained for further analysis.

In **Annexure A, Appendix 1** table 1, table 2, table 3 and table 4 give an idea about the reliability analysis of the individual variables in terms of the value of alpha if an item were deleted.

#### **4.3.2 Exploratory Factor Analysis**

Exploratory factor analysis is used to club the assertions into meaningful conclusions. But before that as a part of preliminary analysis, some prerequisite tests to measure sampling adequacy and multicollinearity was done. Factor analysis was performed as a part of the preliminary analysis and the correlation matrix is obtained. The sample adequacy is necessary to ascertain the results of factor analysis. The necessary sample size for factor analysis as per the rule of thumb is 10-15 participants per variable. The sample size for the study is found to be adequate for the study. The matrix so obtained is found to be "positive definite" and so both **Kaiser–Meyer–Olkin measure of sampling adequacy** and **determinant** is obtained.

For the factor analysis to generate desired results variables under consideration needs to correlate fairly but not perfectly. In **Annexure A in Appendix 2** table 5, table 6, table 7 and table 8 gives the correlation matrix for the economic empowerment, educational empowerment, social empowerment and political empowerment respectively where the variable correlates fairly but not perfectly as such can be used for further analysis.

Kaiser (1974) recommends a minimum of 0.5 for the values as a measure of sample adequacy and that values between 0.5 and 0.7 are considered as mediocre while values between 0.7 and 0.8 are good and values between 0.8 and 0.9 are great and values above 0.9 are superb (Hutcheson & Sofroniou, 1999).

**Table 4.2: Measures of Sampling Adequacy for Empowerment**

Sampling Measure		Value			
		Economic Empowerment	Educational Empowerment	Social Empowerment	Political Empowerment
Kaiser–Meyer–Olkin measure of sampling adequacy		.717	.826	.750	.714
Bartlett's test of Sphericity	(Approx. Chi Square)	1.764***	846.914***	967.720***	1.367***
	Df	66	28	45	15

*Source: Calculated by the author from Primary data*

\*\*\*. significant at the 0.01 level (2-tailed)

For the study the **Kaiser–Meyer–Olkin measure of sampling adequacy** for economic empowerment is 0.717; for educational empowerment, it is 0.826; for social empowerment, it stands at 0.750 and is 0.714 for political empowerment. This falls in the recommended values of minimum 0.5. Thus it can be concluded that the sample size is adequate.

The **Bartlett’s test of Sphericity** tests the null hypothesis that the original correlation matrix is an identity matrix and has a significance value less than .05. The Bartlett’s test is significant ( $p < .001$ ) for the data for all the forms of empowerment and thus factor analysis can be considered appropriate for the present study.

#### **4.3.3 An Initial solution using Principal Component Analysis**

After inspecting the reliability of scale and suitability of data adequacy **Exploratory Factor Analysis** using **Principal Component Analysis** is used to extract and identify the factors for economic, educational, social and political empowerment. For our study, we have used the Eigen Value Criterion as it reduces the data and clusters them in a meaningful way. The Eigen values associated with each factor represent the variance explained by that particular linear component. In **Annexure A in Appendix 3** Table 9, table 10, table 11 and table 12 for economic, educational, social and political empowerment lists the Eigen values associated with each linear component (factor) before extraction in the column labeled as Initial Eigen values, after extraction in the column labeled as Extraction Sums of Squared Loadings and after rotation in the column labeled as Rotation Sums of Squared Loadings.

For **Economic Empowerment** before rotation, factor 1 accounted for considerably more variance than the remaining two factors but after extraction factor 1 account for 24.529

(as compared to 37.914 earlier), factor 2 accounts for 19.241 (as compared to 12.163 earlier) and factor 3 accounts for 16.110 (as compared to 9.803 earlier).

Before rotation, for **Educational Empowerment** factor 1 accounted for considerably more variance than the second factor but after extraction factor 1 account for 41.201 (as compared to 43.064% earlier) and factor 2 accounts for 16.661% (as compared to 14.799% earlier).

Again for **Social Empowerment** before rotation, factor 1 accounted for considerably more variance than the second and the third factor but after extraction factor 1 accounts for 28.099% (as compared to 34.026% earlier) factor 2 accounts for 17.435% (as compared to 16.150% earlier) and factor 2 accounts for 16.452% (as compared to 11.810% earlier).

Finally for the **Political Empowerment** before rotation, factor 1 accounted for considerably more variance than the second and the third factor but after extraction factor 1 account for 47.895% (as compared to 53.155% earlier) and factor 2 accounts for 27.672% (as compared to 22.412% earlier).

#### **4.3.3. A Communalities**

The communalities before and after extraction were computed for all the four criteria of empowerment which is presented in **Annexure A in Appendix 4** (Tables 13, 14, 15 and 16). For **Economic Empowerment** it can be said that 85% of the variance associated with statement 1 is common. 40% of the variance associated with statement 1 is common in **Educational Empowerment**. For **Social Empowerment** 54.5% of the variance associated with statement 1 is common. And finally, for **Political Empowerment**, 56.7% of the variance associated with statement 1 is common.

#### **4.3.4 Examination of Factor Loadings**

After the factors are extracted the loadings of the factor are examined. Factor loading is defined as the correlation between a variable and a factor. To examine the factor loadings the component matrix and the rotated component matrix are explained.

##### **4.3.4. A Component Matrix**

The component matrix before rotation contains the loadings of each variable onto each factor. There are blank spaces for many loadings as all loadings less than 0.3 are suppressed in the output. The tables for the component matrix of economic, educational, social and political empowerment are given in **Annexure A in Appendix 5** (tables 17, 18, 19 and 20). Before rotation, most variables load highly onto the first factor. 6 factors are extracted at this stage but Factor 1 accounts for most of the factors. To overcome these problem factor rotations are suggested.

##### **4.3.4. B Factor rotation (Rotated Component Matrix)**

In Component Matrix it was seen that most of the variables loaded highly onto Factor1 and had small loadings for the other factors. So the technique of factor rotation<sup>1</sup> is used to differentiate between factors and make interpretation more comprehensive. For the present study varimax rotation is used because the study aims at reducing the data and varimax rotation simplifies the interpretation of factors.

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<sup>1</sup> *There are two types of rotation- orthogonal rotation (varimax, quartimax and equamax) and oblique rotation (direct oblimin and promax). Varimax is a good general approach that simplifies the interpretation of factors so most of the studies use and suggests the use of varimax rotation.(Andy Field-2009)*



Tables 21, 22, 23 and 24 in **Annexure A in Appendix 6** give the rotated component matrix. The information contained in these tables is the same as Tables 17, 18, 19 and 20 for Component Matrix except that it is calculated after rotation. Here, factor loadings of less than 0.3 are suppressed and the variables are sorted by size. In the rotated component matrix the relative importance of all the factors are maximized after rotation.

#### **4.3.5. Interpretation of Results**

##### **4.3.5. A Economic Empowerment**

Cronbach Alpha ( $\alpha$ ) is estimated to be .815 for all the 12 assertions relating to economic empowerment. This can be considered to be in a very good range.

A principal component analysis (PCA) is conducted on the 12 items with varimax rotation. The Kaiser–Meyer–Olkin (KMO) measure confirmed the sampling adequacy for the analysis with  $KMO = .717$ , which is above the acceptable limit of 0.5. Besides it is also found that all KMO values for individual items are  $> .05$ , which is above the acceptable limit of 0.5 (Field, 2009).

Bartlett's test of Sphericity  $\chi^2 (66) = 1.764E3, p < .001$ , indicated that correlations between items are sufficiently large to apply Factor Analysis using Principal Component Analysis. An initial analysis is run to obtain Eigen values for each component in the data.

It is found that three components had Eigen values over Kaiser's criterion of 1 and in combination explained 59.880% of the variance. However, the Scree plot had one point of inflexion that justified retaining only 1 component. Given the sample size and the divergence of the Scree plot and Kaiser's criterion on the number of components to be retained, 3 components were retained in the final analysis based on Kaiser's Criterion.

Table 21, in **Annexure A, Appendix 6** titled Rotated Component Matrix shows the factor loadings after rotation. The items that cluster on the same components suggest that component 1 represents **Thrift and Credit**, component 2 **Non-financial Assets** and component 3 **Access to Financial Security**.

Based on the results derived from factor analysis Table 4.3 summarizes the findings on economic empowerment.

**Table 4.3: Summary of the Factors on Economic empowerment**

<b>Components</b>	<b>Variables/Dimensions/Statements</b>	<b>Factor Loadings</b>	<b>Total Variance Explained</b>
<b>C1 Thrift and Credit</b>	Increase in Family Income	.853	<b>24.529</b>
	Increased Family Expenditure Contribution	.800	
	Regular saving habit post joining SHG	.785	
	Loan Repayment Capacity	.650	
<b>C2 Non-financial Assets</b>	Consumer durable has increased post joining SHG	.660	<b>19.241</b>
	Housing Conditions have Improved	.535	
	Contribution in children's education has increased post joining SHG	.593	
	Increase in Livestock	.696	
<b>C3 Access to Financial Security</b>	Post Office Savings have Increased	.705	<b>16.110</b>
	individual bank account increased post joining SHG	.547	
	KCC to family member post joining SHG	.598	
	Life Insurance	.755	

*Source: Calculated by the author from Primary data*

In the Economic empowerment, “Thrift and credit” explains the highest amount of total variance with a total variance of 24.529. Hence the factor which has more impact on economic empowerment is “Thrift and credit”.

Amongst the four variables comprising of “thrift and credit” the variable “increase in family income” has the highest factor loading of .853 followed by “contribution to family expenditure” with a loading of .800. Thus it can be inferred that SBLP can lead to an increased contribution to family income and expenditure by the women.

#### **4.3.5. B Educational Empowerment**

Cronbach Alpha ( $\alpha$ ) is estimated to be .805 for all the 8 assertions relating to educational empowerment. This can be considered to be in a very good range.

A principal component analysis (PCA) was conducted on the 8 items with varimax rotation. The Kaiser–Meyer–Olkin (KMO) measure confirmed the sampling adequacy for the analysis with  $KMO = .826$ , which is above the acceptable limit of 0.5. Besides it was also found that all KMO values for individual items were  $> .05$ , which is well above the acceptable limit of 0.5 (Field, 2009).

Bartlett’s test of Sphericity  $\chi^2 (28) = 846.914$ ,  $p < .001$ , indicated that correlations between items were sufficiently large to apply Factor Analysis using Principal Component Analysis. An initial analysis was run to obtain Eigen values for each component in the data.

It was found that two components had Eigen values over Kaiser’s criterion of 1 and in combination explained 57.862% of the variance. However, the Scree plot had one point of inflexion that justified retaining only 1 component. Given the sample size, and the

divergence of the Scree plot and Kaiser’s criterion on the number of components to be retained, 2 components were retained in the final analysis based on Kaiser’s Criterion.

Table 22, in **Annexure A, Appendix 6** titled Rotated Component Matrix shows the factor loadings after rotation. The items that cluster on the same components suggest that component 1 represents **Banking Education**, component 2 represents **Literacy Skill**.

Based on the results derived from factor analysis Table 4.4 summarizes the findings on educational empowerment

**Table 4.4: Summary of the Factors of Educational empowerment**

<b>Components</b>	<b>Variables/Dimensions/Statements</b>	<b>Factor Loadings</b>	<b>Total Variance Explained</b>
<b>C1 Banking Education</b>	Respondent learned how to maintain books of accounts post joining SHG	.849	<b>41.201</b>
	Respondent can do banking transaction independently post joining SHG	.842	
	Respondent learned how to write minutes of SHG meeting after joining SHG	.832	
	Respondents acquired knowledge for banking operation post joining SHG	.742	
	Calculate money	.539	
	Respondent has an idea of SHG loan outstanding	.530	
<b>C2 Literacy Skill</b>	SHG Concept and Approach Knowledge	.766	<b>16.661</b>
	Literacy Skill	.649	

*Source: Calculated by the author from Primary data*

For educational empowerment, “Banking Education” explains the highest amount of total variance with a total variance of 41.201. Hence the factor which has more impact on educational empowerment is “Banking Education”.

Amongst the six variables comprising of “Banking Education” the variable “increase in Respondent learned how to maintain books of accounts post joining SHG” has the highest factor loading of .849 closely followed by “Respondent can do banking transactions independently post joining SHG” with a loading of .842. Thus it can be inferred that SBLP can increase SHG member’s efficiency in maintaining the group’s financial transactions and in performing banking transactions without any external help.

#### **4.3.5. C Social Empowerment**

Cronbach Alpha ( $\alpha$ ) is estimated to be .737 for all the 10 assertions relating to educational empowerment. This can be considered to be in a very good range.

A principal component analysis (PCA) was conducted on the 10 items with varimax rotation. The Kaiser–Meyer–Olkin (KMO) measure confirmed the sampling adequacy for the analysis with KMO = .750, which is above the acceptable limit of 0.5. Besides it was also found that all KMO values for individual items were  $> .05$ , which is well above the acceptable limit of 0.5 (Field, 2009).

Bartlett’s test of Sphericity  $\chi^2 (45) = 967.720, p < .001$ , indicated that correlations between items were sufficiently large to apply Factor Analysis using Principal Component Analysis. An initial analysis was run to obtain Eigen values for each component in the data.

It was found that three components had Eigen values over Kaiser’s criterion of 1 and in combination explained 61.986% of the variance. However, the Scree plot had one point

of inflexion that justified retaining only 1 component. Given the sample size, and the divergence of the Scree plot and Kaiser’s criterion on the number of components to be retained, 3 components were retained in the final analysis based on Kaiser’s Criterion.

Table 23, in **Annexure A, Appendix 6** titled Rotated Component Matrix shows the factor loadings after rotation. The items that cluster on the same components suggest that component 1 represents **Active Participation in Household Decision**, component 2 **Gender Equality** and component 3 **Market Participation**.

Based on the results derived from factor analysis Table 4.5 summarizes the findings on educational empowerment.

**Table 4.5: Summary of the Factors on Social empowerment**

<b>Components</b>	<b>Variables/Dimensions/Statements</b>	<b>Factor Loadings</b>	<b>Total Variance Explained</b>
<b>C1 Active Participation in Household Decision</b>	Respondent's participation in children's education decision increased post joining SHG	.803	<b>28.099</b>
	Respondent's participation in children's marriage decision increased post joining SHG	.784	
	Respondent's participation in household expenditure decision increased post joining SHG	.779	
	Respondent's participation in family planning decisions increased post joining SHG	.740	

	Decision-making capacity of the respondent has increased post joining SHG	.580	
<b>C2 Gender Equality</b>	Respondent can participate in training and awareness programme post joining SHG	.807	<b>17.435</b>
	Respondent is aware of property rights post joining SHG	.623	
	Domestic violence against respondent has reduced post joining SHG	.623	
<b>C3 Market Participation</b>	Respondent can market their produced goods post joining SHG	.849	<b>16.452</b>
	Respondent goes to outside village for marketing of goods after joining SHG	.797	

*Source: Calculated by the author from Primary data*

In social empowerment, “Active Participation in the Household Decision” explains the highest amount of total variance with a total variance of 28.099. Hence the factor which has more impact on social empowerment is “Active Participation in the Household Decision”.

Amongst the five variables comprising of “Active Participation in the Household Decision”, the variable “Respondent's participation in children's education decision increased post joining SHG” has the highest factor loading of .803 followed by “Respondent's participation in children's marriage decision increased post joining SHG” with a loading of .784. Thus it can be inferred that SHG can gradually empower women socially with an increased role in the decision-making process.

#### 4.3.5. D Political Empowerment

Cronbach Alpha ( $\alpha$ ) is estimated to be .811 for all the 6 assertions relating to educational empowerment. This can be considered to be in a very good range.

A principal component analysis (PCA) was conducted on the 6 items with varimax rotation. The Kaiser–Meyer–Olkin (KMO) measure confirmed the sampling adequacy for the analysis with KMO = .714, which is above the acceptable limit of 0.5. Besides it was also found that all KMO values for individual items were  $> .05$ , which is well above the acceptable limit of 0.5 (Field, 2009).

Bartlett's test of Sphericity  $\chi^2 (15) = 1.367E3, p < .001$ , indicated that correlations between items were sufficiently large to apply Factor Analysis using Principal Component Analysis. An initial analysis was run to obtain Eigen values for each component in the data.

It was found that two components had Eigen values over Kaiser's criterion of 1 and in combination explained 75.567% of the variance. However, the Scree plot had one point of inflexion that justified retaining only 1 component. Given the sample size, and the divergence of the Scree plot and Kaiser's criterion on the number of components to be retained, 2 components were retained in the final analysis based on Kaiser's Criterion.

Table 24, in **Annexure A, Appendix 6** titled Rotated Component Matrix shows the factor loadings after rotation. The items that cluster on the same components suggest that component 1 represents **Women's Right and Power** and component 2 **Participation in Politics**.

Based on the results derived from factor analysis Table 4.6 summarizes the findings on educational empowerment.



**Table 4.6: Summary of the Factors on Political empowerment**

<b>Components</b>	<b>Variables/Dimensions/Statements</b>	<b>Factor Loadings</b>	<b>Total Variance Explained</b>
<b>C1 Women's Right and Power</b>	Respondent has been elected as a member of gaon panchayat after joining SHG	.962	<b>47.895</b>
	Respondent has participated in election as a member after joining SHG	.941	
	Respondent acquired knowledge about constitutional provisions and special laws related to women post joining SHG	.912	
<b>C2 Participation in Politics</b>	Respondent has participated in the election as a voter post joining SHG	.844	<b>27.672</b>
	Respondent has participated in the meeting of village Panchayat post joining SHG	.724	
	Respondent has started participating in gram sabha post joining SHG	.600	

*Source: Calculated by the author from Primary data*

In political empowerment, “women’s right and power” explains the highest amount of total variance with a total variance of 47.895. Hence the factor which has more impact on social empowerment is “women’s right and power”.

Amongst the three variables comprising of “Women’s Right and Power”, the variable “Respondent has been elected as a member of Gaon Panchayat after joining SHG” has the highest factor loading of .962 followed by “Respondent has participated in the election as a member after joining SHG” with a loading of .941. Thus it can be inferred that SHG can gradually empower its members politically with an increased women right and power.

#### **4.4 Empowerment Status Post Joining SHG**

This section deals with measuring empowerment post joining SHG. The results for the 4 indicators of empowerment considered for the study are given.

##### **4.4.1 Economic Empowerment**

The economic empowerment is measured through 12 variables. In table 4.7 it is seen that the overall respondents out of 340 who agreed to have been economically empowered post joining SHG stand at 62%

**Table 4.7: Economic Empowerment**

<b>Variables/Statements</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Total</b>	<b>Percentage of empowerment post joining SHG</b>
Increase in Income	37	15	288	340	<b>85</b>
Increase in expenditure	20	32	288	340	<b>85</b>
Increase in post office savings	107	50	183	340	<b>54</b>
Increase in savings	27	29	284	340	<b>84</b>
Increase in durable assets	107	50	183	340	<b>54</b>
Improvement in housing condition	52	113	175	340	<b>51</b>
Improvement in loan repayment capacity	26	30	284	340	<b>84</b>
Opening individual bank account	69	40	231	340	<b>68</b>
Increased contribution on children's education	199	27	114	340	<b>34</b>
Increase in number of KCC holder in the family	308	4	28	340	<b>8</b>
Increase in livestock	178	14	148	340	<b>44</b>
Increase in the purchase of health insurance	15	5	320	340	<b>94</b>
<b>Percentage to Total Economic Empowerment Post Joining SHG</b>					<b>62</b>

*Source: Calculated by the author from Primary data*

However, the difference is observed between the 12 variables of economic empowerment. Surprisingly, most of the respondents i.e. 320 out of 340 are covered under health insurance post joining SHG because AGVB has promoted micro-insurance through SBLP in collaboration with Bajaj Allianz Life Insurance Company Limited. This is closely followed by 288 respondents (i.e.85%) respectively agreed to have an increase in the level of income and expenditure post joining SHG. On contrary to this only 8% family members of the respondents have availed the facility Kissan Credit Card (KCC). RRB's although has promoted KCC nationwide, limited KCC holders in respondents family indicate less number of households engaged in agricultural activity due to unavailability of irrigated land.

#### **4.4.2 Educational Empowerment**

The educational empowerment is measured through 8 variables. In table 4.8 it is seen that the overall respondents out of 340 who agreed to have been educationally empowered post joining SHG stand at 48%.

**Table 4.8: Educational Empowerment**

<b>Variables/Statements</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Total</b>	<b>Percentage of empowerment post joining SHG</b>
Increase in money calculation knowledge	82	145	113	340	<b>33</b>
Increase banking operation knowledge	87	40	213	340	<b>63</b>
Increase in banking transaction knowledge	131	50	159	340	<b>47</b>
Increase in SHG related knowledge	18	309	13	340	<b>4</b>
Can write SHG minute easily	162	31	147	340	<b>43</b>
Learned how to maintain books of account	192	36	112	340	<b>33</b>
Increase in literacy skill	34	4	302	340	<b>89</b>
Increase in the idea of SHG loan outstanding	71	15	254	340	<b>75</b>
<b>Percentage to Total Educational Empowerment Post Joining SHG</b>					<b>48</b>

*Source: Calculated by the author from Primary data*

But the discrepancy in empowerment variables is observed in table 4.8. It is seen that 89% of the respondents have agreed that their Literacy skill has increased while maintaining books of accounts, banking transactions of SHG accounts and by attaining orientation programme and skill development programme. This is closely followed by an increase in the idea of SHG loan outstanding where 75% of the respondents have reported an increase post joining SHG. This can be attributed to the fact that AGVB has credit linked SHG through SBLP as such knowledge related to the loan has eventually

increased in SHG members. On contrary to these 309 respondents (90.88%) has a neutral opinion as regards to increasing in SHG related knowledge. This is due to the fact that the concept of SBLP is very much similar to the concepts of gots, samities, samabais etc. The members of the SHG were aware of these procedures as the members were involved in the borrowing and lending procedures of the gots, samities and samabais much before the introduction of the concept of SBLP.

#### 4.4.3 Social Empowerment

The social empowerment is measured through 10 variables. In table 4.9 it is seen that the overall respondents out of 340 who agreed to have been socially empowered post joining SHG stands only at 35%.

**Table 4.9: Social Empowerment**

<b>Variables/Statements</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Total</b>	<b>Percentage of empowerment post joining SHG</b>
Increase in decision making capacity	26	186	128	340	<b>38</b>
Decrease in domestic violence	35	283	22	340	<b>6</b>
Participation in family planning decision	20	263	57	340	<b>17</b>
Participation house hold expenditure	52	190	98	340	<b>29</b>
Participation Children's education	21	233	86	340	<b>25</b>
Participation Children's marriage	21	247	72	340	<b>21</b>

Increase in awareness in property rights	147	88	105	340	<b>31</b>
Increase in participation in training and awareness programme	24	29	287	340	<b>84</b>
Increase in outside village marketing	232	21	87	340	<b>26</b>
Increase in ability to market produced goods	43	149	148	340	<b>44</b>
Percentage to Total Social Empowerment Post Joining SHG					<b>35</b>

*Source: Calculated by the author from Primary data*

Most of the respondents i.e. 84% have reported an increase in participation in training and awareness programme post joining SHG. They reported having attended those programmes as those were held by AGVB to make SBLP programme a success. In other variables more or less the responses remain neutral because it is found that in Assam the women have a say in family matters. Domestic violence is not as common in Assam as such most of the responses are found to be neutral for the sampled population. However, 22 households have reported a decrease in domestic violence which is quite encouraging.

#### **4.4.4 Political Empowerment**

The political empowerment is measured through 6 variables. In table 4.10 it is seen that the overall respondents out of 340 who agreed to have been politically empowered post joining SHG stand merely at 10% which is highly disappointing.

**Table 4.10: Political Empowerment**

<b>Variables/Statements</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Total</b>	<b>Percentage of empowerment post joining SHG</b>
Increased participation in Panchayat meeting	66	200	74	340	<b>22</b>
Increased participation in grama sabha	213	92	35	340	<b>10</b>
Increased participation as a voter	31	287	22	340	<b>6</b>
Increased participation in election as a member	316	0	24	340	<b>7</b>
Elected as a member of Gaon Panchayat	321	0	19	340	<b>6</b>
Increased knowledge of constitutional rights of women	311	5	24	340	<b>7</b>
<b>Percentage to Total Political Empowerment Post Joining SHG</b>					<b>10</b>

*Source: Calculated by the author from Primary data*

Most of the households have reported no change in political participation even after joining SHG. Those who have reported to have increased in political participation belongs to households with stronger economic and educational background. It was found during the survey time that these people were educated and usually held the top positions in the SHG like President or Secretary and also had a strong-hold in the village.

#### **4.5 Pearson Correlation Coefficient**

The factor analysis for the indicators of empowerment only resulted in sub-components for the empowerment indicator. But it could not provide any information with regards to



the interrelationship between the empowerment indicators. However, it is important to measure the nature of the relationship among the related variables which in the study is the various indicators of empowerment. Hence an attempt has been made to find the relationship among factors of economic empowerment, educational empowerment, social empowerment and political empowerment and which are considered as major indicators of women empowerment. As such Karl Pearson's coefficient of correlation employed to find out the inter-relationship among 10 factors of women empowerment which was obtained from factor analysis. The results for the same are presented in Table 4.11 represents the result between the obtained components/factors of the various indicators and table 4.12 represents the relationship between the indicators considering all the variables used for the specific indicator.

**Table 4.11: Correlation coefficient between various empowerment variables**

Variables	Thrift and Credit	Non-financial Assets	Access to Financial Security	Banking Education	Literacy Skill	Active Participation in Household Decision	Gender Equality	Market Participation	Women Right and Power	Participation in Politics
Thrift and Credit	1									
Non-financial Assets	.000 (1.000)	1								
Access to Financial Security	.000 (1.000)	.000 (1.000)	1							
Banking Education	.402*** (.000)	.547*** (.000)	.192*** (.000)	1						
Literacy Skill	.342*** (.000)	-.025 (.652)	.245*** (.000)	.000 (1.000)	1					
Active Participation in Household	.294*** (.000)	.025 (.645)	.344*** (.000)	.157*** (.004)	.257*** (.000)	1				

Decision										
Gender Equality	.165 <sup>***</sup> (.002)	.074 (.172)	.245 <sup>***</sup> (.000)	.230 <sup>***</sup> (.000)	.372 <sup>***</sup> (.000)	.000 (1.000)	1			
Market Participation	.222 <sup>***</sup> (.000)	.522 <sup>***</sup> (.000)	.131 <sup>**</sup> (.016)	.467 <sup>***</sup> (.000)	.051 (.349)	.000 (1.000)	.000 (1.000)	1		
Women Right and Power	.051 (.345)	.289 <sup>***</sup> (.000)	.198 <sup>***</sup> (.000)	.291 <sup>***</sup> (.000)	.129 <sup>**</sup> (.017)	.041 (.450)	.063 (.245)	.289 <sup>***</sup> (.000)	1	
Participation in Politics	.595 <sup>***</sup> (.000)	.259 <sup>***</sup> (.000)	.235 <sup>***</sup> (.000)	.464 <sup>***</sup> (.000)	.351 <sup>***</sup> (.000)	.406 <sup>***</sup> (.000)	.112 <sup>**</sup> (.039)	.333 <sup>***</sup> (.000)	.000 (1.000)	1

Source: Calculated by the author from Primary data

\*\*\*. significant at the 0.01 level (2-tailed).

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

Figures in the parentheses represent the level of significance.

From table 4.11, it is seen that each variable is perfectly correlated with itself and therefore,  $r = 1$  along the diagonal of the table. A positive correlation was observed between the various components of empowerment as derived from the factor analysis and the significance value is less than .001 (as indicated by the triple asterisk after the coefficient).

#### **4.5.1 Economic Empowerment**

**‘Thrift and Credit’** which is the first factor for economic empowerment is related to banking education ( $r = .402$ ), Literacy Skill ( $r = .342$ ), Active Participation in Household Decision ( $r = .294$ ), Gender Equality ( $r = .165$ ), Market Participation ( $r = .222$ ) and Participation in Politics ( $r = .595$ ) all of which are significant at 1 percent level of significance. This implies that an increase in thrift and credit empowers and women to attain basic literacy skill along with banking education. Further, it leads to an increase in social and political participation.

The second factor of economic empowerment which is **‘Non-Financial Assets’** is correlated to banking education ( $r = .547$ ), Market participation ( $r = .522$ ), women right and power ( $r = .289$ ) and participation in politics ( $r = .259$ ) all of which are significant at 1% level of significance. This implies that an increase in the nonfinancial assets also empowers women in all the other fonts of life like education, social and political participation.

The factor **‘Access to Financial Security’** which is the third and final factor of economic empowerment is related to banking education ( $r = .192$ ), literacy skill ( $r = .245$ ), Active Participation in Household Decision ( $r = .344$ ), Gender Equality ( $r = .245$ ), Market Participation ( $r = .131$ ), Women Right and Power ( $r = .198$ ), Participation in

Politics ( $r = .235$ ) all of which are significant at 1 per level of significance. Financial security thus encourages women to be more educated and also participate actively in social and political matters.

#### **4.5.2 Educational Empowerment**

The first factor of educational empowerment which is **‘Banking Education’** is correlated to Active Participation in Household Decision ( $r = .157$ ), gender equality ( $r = .230$ ), Market participation ( $r = .467$ ), women right and power ( $r = .291$ ) and participation in politics ( $r = .464$ ) all of which are significant at 1 percent level of significance. This implies that an increase in banking education enhances the capacity of SHG women in all the other fonts of life like education, social and political participation.

**‘Literacy Skill’** which is the second factor for educational empowerment is related to Active Participation in Household Decision ( $r = .257$ ), Gender Equality ( $r = .372$ ), Women’s right to power ( $r = .129$ ) and Participation in Politics ( $r = .351$ ). Except for Women’s Right to power which is significant at 5% level of significance, all the other factors are significant at the 1% level of significance. This implies that literacy skill enhanced the confidence of women members of SHG to be economically independent and participate actively in social and political matters.

#### **4.5.3 Social Empowerment**

**‘Active Participation in Household Decision’**, which is the first factor for social empowerment is related to Participation in Politics ( $r = .406$ ) which is significant at 1% level of significance. This implies when a woman has the power to participate and take a decision at the household level her decision-making capacity in social as well political fonts also improves.

The second factor of social empowerment which is ‘**Gender Equality**’ is correlated with participation in politics ( $r = .112$ ) which is significant at 5% level of significance. This stress on the fact that empowerment of women depends largely on gender equality.

The factor ‘**Market Participation**’ which is the third and final factor of social empowerment is Women Right and Power ( $r = .289$ ) and Participation in Politics ( $r = .333$ ) both significant at 1 per level of significance.

#### 4.5.4 Political Empowerment

‘**Women’s Right and Power**’, the first factor of political empowerment is correlated to all the other factors of empowerment stressing on the fact that political knowledge is also important if SHG women have to be independent and self-sustaining. Lastly, ‘**Participation in Politics**’ emphasizes women’s active participation in politics to improve their decision-making capacity.

**Table: 4.12 Pearson Correlation Coefficient between the indicators of empowerment**

Variable	Economic Empowerment	Educational Empowerment	Social Empowerment	Political Empowerment
Economic Empowerment	1			
Educational Empowerment	.695 <sup>***</sup>	1		
Social Empowerment	.674 <sup>***</sup>	.626 <sup>***</sup>	1	
Political Empowerment	.665 <sup>***</sup>	.618 <sup>***</sup>	.508 <sup>***</sup>	1

*Source: Calculated by the author from Primary data*

Source: Primary data

\*\*\*. significant at the 0.01 level (2-tailed).

From table 4.12, it is seen that each variable is perfectly correlated with itself and therefore,  $r = 1$  along the diagonal of the table. No negative correlation was observed between the various measures of empowerment. There is some correlation amongst the measures of empowerment and the significance value is less than .001 (as indicated by the triple asterisk after the coefficient).

The output shows that economic empowerment is positively related to educational empowerment, with a coefficient of  $r = .695$ , which is significant at  $p < .001$ . Again economic empowerment is positively related to social empowerment with a coefficient of  $r = .674$  which is significant at  $p < .001$ . Finally, economic empowerment is also positively related to political empowerment, with a coefficient of  $r = .665$ , which is significant at  $p < .001$ .

Again it is seen that educational empowerment is positively related to social and political empowerment with a coefficient of  $r = .626$  and  $r = .618$  respectively, both of which are significant at  $p < .001$ . Finally, social and political empowerment are positively related to each other with a coefficient of  $r = .508$ , which is significant at  $p < .001$ . It can be concluded that social empowerment is essential for women to be politically empowered. Thus, it can be concluded that there is an interrelationship between the four variables of empowerment.

## **4.6 Conclusions**

On the basis of exploratory factor analysis, 10 factors are found to be important which can affect the empowerment of SHG beneficiaries. Further in economic empowerment “Thrift and credit” explains the highest amount of total variance with a total variance of 24.529. From it can be inferred that SBLP has led to an increased contribution to family

income and expenditure by the women. In educational empowerment “Banking Education” explains the highest amount of total variance with a total variance of 41.201 with SBLP has led to an increase in banking education amongst the women joining SHG. In social empowerment, “active participation in household decision” explains the highest amount of total variance with a total variance of 28.099, empowering women socially with an increased role in the decision-making process. Finally for political empowerment, “women right and power” explains the highest amount of total variance with a total variance of 47.895. From which it can be inferred that SBLP can empower women politically with an increased women right and power.

Majority of respondents have revealed that they became economically empowered after joining SBLP, whereas SBLP could not motivate the members much in terms of educational, social and political empowerment.

It can be concluded that the empowerment variables are interrelated. But more specifically economic empowerment leads to other forms of empowerment.