Chapter IV

Methodology
METHODOLOGY

4.1 INTRODUCTION

Pollachi Taluk which is situated in Coimbatore district is chosen for the purpose of the study. Exhibit 4.1 shows the location of Pollachi Taluk. Pollachi is situated 40 kms away from Coimbatore. It has several villages. As per the census conducted in 2002, its population is around 977730, of which 51430 are males and 46300 are females.

Several NGOs are working for women's empowerment in Coimbatore district. In Pollachi Taluk REST, a Non-Governmental Organization (NGO) is playing a lead role in organizing self-help groups. In the present study, the groups organized by REST and members belonging to such groups have been taken up for study. The research methodology followed for carrying out the study is explained in this chapter.

4.2 SAMPLE

REST (NGO) has promoted 400 SHGs as on 31st March 2003. A list of names of the SHGs has been obtained from the NGO. As it has been proposed to study such groups which have taken up economic loans from banks and started business with it, a list of such groups has been prepared from the list obtained from the N.G.O. The number of groups satisfying this condition comes to 60 and out of this, 40 groups have been chosen through simple random sampling method.

When SHGs are started, members begin to save regularly and deposit the amount in a bank. Based upon the need, banks lend an amount equal to one-third of the savings amount. SHGs at this stage are called as SHGs at first grade. When the bank is satisfied, it lends revolving credit up to Rs.25,000 to SHGs which have successfully crossed through the first grade. At this stage, the SHGs are said to be at second grade. After this stage, the SHGs become eligible to get loans of high amount. These loans are called as economic loans. The selected 40 SHGs belong to this category. The rest 210 SHGs consist of SHGs at first grade as well as those which have not completed second grade but attained first grade. The total number of members of these groups is around 2940. Of these members, 480 members have been chosen using simple random sampling method.
The SHGs to which the sample 480 members belonged to as well as the 40 SHGs taken up for study deposit their savings in the branches of public sector banks and also with co-operative banks that are functioning in Pollachi Taluk. The number of such banks, with which the selected sample groups and members are associated with, comes to 20. Of these, twelve are branches of co-operative banks and the rest eight are branches of public sector banks. From the lists of banks, 7 have been selected by random sampling method.

4.3 DATA AND SOURCES OF DATA

Primary data have been collected from the leaders (animators) of the group, the members of Self-Help Group and the banks which are lending to these groups. Secondary data relating to the member of SHGs at all India level and at different regions encompassing various states have been collected from various reports and websites of National Bank for Agriculture and Rural development (NABARD).

4.4 METHODOLOGY

In order to examine the functioning of self-help groups, data have been collected from the animators through an interview schedule. Questions relating to personal details, holding of meetings, member’s participation in meetings and types of business started with the help of micro credit have been included (Appendix I). To ascertain the member’s opinion of self-help groups, data have been collected from the members of SHGs through interview schedule (Appendix II). Membership particulars, usage of micro credit, member’s opinion on holding of meetings and member’s opinion on SHGs have been included in this schedule. Since most of the group leaders as well as the members are illiterate, interview schedule method has been used for collecting the desired data. To find out the banker’s role in assisting SHGs, data have been collected through a questionnaire (Appendix III). Criteria for sanctioning loans to SHG, amount lent to SHGs and details about repayment schedule have been included in this questionnaire.

4.5 PERIOD OF STUDY

The period of study consists of four years from 2003 - 2004 to 2006 - 2007. The amount of loan lent to the members in these years has been collected from the banks.
4.6 FRAMEWORK OF ANALYSIS

The data collected have been analysed making use of statistical tools which include i. Weighted Average Ranking Method, ii. Paired ‘t’ test, iii. Mean and iv. Chi square test. Apart from these statistical tools simple percentage method has been used to describe the data. Tools used and their purpose - chapter wise - are explained in the following paragraphs.

i. Tools used in Chapter V

Weighted Average Rank method has been used to ascertain to which factor, on an average, the groups have assigned first rank. This is employed at two places in fifth chapter. At first, it is used to ascertain to which purpose, out of the various purposes for forming an SHG, the groups have assigned first rank. In the next instance, weighted average rank has been used to find out the most important factor that motivates the SHGs to repay the loan promptly. The method of computing Weighted Average Rank is explained below.

a. Purpose of Forming SHG

Eleven purposes are given in the interview schedule as reasons for starting a SHG. The group leaders are to assign ranks to each of these eleven purposes. Rank assigned to each purposes has been multiplied by the member of groups (weights) assigned such ranks and the sum of the products of rank and number of groups, for each purpose, has been separately obtained. This total has been divided by 11 (number of purposes) to get the weighted average rank, Thus the formula for computing weighted average rank is as below,

\[
\text{Weighted average Rank} = \frac{\sum (r_i \times n_i)}{N}
\]

Where \( r_i \) = Rank for \( i^{th} \) factor
\( n_i \) = Number of groups assigning a rank to \( i^{th} \) factor
\( N \) = Total number of factors

After computing the eleven values, the least value is assigned the first rank and subsequent ranks are assigned on ascending order.
b. Reason for Prompt Repayment

There are six reasons included in the interview schedule as reasons for prompt repayment. To find out the most prominent factor which motivates the members to repay promptly, weighted average rank has been used. The method of computation is similar to the one used for examining the most prominent purpose of forming SHGs.

ii. Tools used in Chapter VI

In order to examine whether there is really an increase in the level of income after a member has joined SHG, paired ‘t’ test has been used. For this, the members who are earning income now and were also earning or just were not earning before their entry into SHG, have been taken into account. The formula for computing ‘t’ statistics is as below.

\[
\text{Weighted Average Rank} = \frac{\bar{d} \sqrt{n}}{S}
\]

Where \( \bar{d} \) = the mean of the differences
\( S \) = the standard deviation of the differences

The value of \( S \) is calculated as follows:

\[
S = \sqrt{\sum (d - \bar{d})^2 / (n - 1)}
\]

The level of confidence is five per cent. This analysis is done in Chapter VI.

In order to examine the factors that are associated with member’s perception on SHG, a ‘Perception Score’ has been developed. Answers to questions relating to the opinion of members on SHG have been assigned scores for developing the perception score. In all, there are 14 questions that fall under the heading of member’s opinion on SHG’ with three possible answers - strongly agree, agree and disagree. A three - point scale is used to assign scores to these answers. The scores are 3, 2 and 1. As there are 14 questions, the maximum possible score is 42 (14 X 3). Each member has been assigned scores.

After computing scores for each of the members, they have been divided into three categories as members with low perception on SHG, medium perception on SHG and high perception on SHG. For this purpose, mean and standard deviation of the scores of 480
members have been computed. The value of the mean is 22.48 and standard deviation is 5.94. By deducting and adding the value of standard deviation from the mean value, the total members have been divided into three groups as below,

<table>
<thead>
<tr>
<th>Range of Score</th>
<th>Level of Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Members with score up to 22 (22.48, rounded off)</td>
<td>Low</td>
</tr>
<tr>
<td>ii. Members with score between 23 and 33</td>
<td>Medium</td>
</tr>
<tr>
<td>iii. Members with score above 33 (34.34, rounded off)</td>
<td>High</td>
</tr>
</tbody>
</table>

After classifying the members into three groups, an attempt has been made to ascertain the factors influencing the level of perception on SHG. For this, chi-square test has been used. The formula for computing Chi-square test is as below,

\[
\frac{X^2}{E} = \sum \frac{(O - E)^2}{E}
\]

Where \(O\) = Observed frequency  
\(E\) = Expected frequency

The Value of \(E\) is calculated as follows,

\[
E = \frac{RT \times CT}{N}
\]

Where \(RT\) = The row total for the row containing the cell  
\(CT\) = The column total for the column containing the cell  
\(N\) = The total number of observations

There are 11 factors which have been taken for the test. They are i. Age, ii. Marital Status, iii. Educational Qualification, iv. Occupation, v. Type of Family, vi. Number of dependants, vii. Monthly Income, viii. Period of Membership, ix. Holding of Meetings, x. Discussion of socio-economic issues and xi. Change of leader. The level of confidence chosen is five per cent.
iii. Tools used in Chapter VI

Chi-square test has also been used to examine the member’s commitment to SHGs. Member’s commitment has been ascertained by examining whether they participate in social activities and meetings, always, seldom or never. The above mentioned factors have been taken, to test whether the factors associate with the participation in social activities and participation in group meetings.

4.7 HYPOTHESES

To test whether there is an increase in the level of income after a member has joined SHG, the following hypothesis has been framed and examined through paired ‘t’ test, in Chapter VI.

\( H_0 : \) 'There is difference in monthly income before and after joining SHG'.

Following are the hypotheses framed to ascertain the factors influencing member’s perception on SHGs.

i. \( H_0 : \) Age does not influence perception on SHG

ii. \( H_0 : \) Marital Status is not associated with the perception on SHG.

iii. \( H_0 : \) Educational qualification and perception of members are not associated with each other.

iv. \( H_0 : \) Occupation does not influence perception on SHG.

v. \( H_0 : \) Type of family does not influence perception on SHG.

vi. \( H_0 : \) Number of dependants and perception level are not associated with each other.

vii. \( H_0 : \) Monthly income does not influence perception on SHG

viii. \( H_0 : \) Period of Membership is not associated with the perception on SHG.

ix. \( H_0 : \) Regularly in conducting meetings does not influence perception on SHG.

x. \( H_0 : \) Discussion of socio-economic issues is not associated with perception on SHG.

xi. \( H_0 : \) Change of leader does not influence perception on SHG.

The hypotheses are tested in Chapter VI.

In order to examine the factors associated with member’s commitment to SHGs, the following hypotheses are framed and tested.
A. Factors associated with Participation in Social Activities

i. $H_0$: Age and Participation in Social Activities are not associated with each other.

ii. $H_0$: Marital status does not influence Participation in Social Activities

iii. $H_0$: Educational qualification is not associated with Participation in Social Activities

iv. $H_0$: Occupation and Participation in Social Activities are not associated with each other.

v. $H_0$: Type of Family does not influence Participation in Social Activities

vi. $H_0$: Number of dependants and Participation in Social Activities is not associated with each other.

vii. $H_0$: Monthly income does not influence Participation in Social Activities

viii. $H_0$: Period of membership is not associated with Participation in Social Activities

ix. $H_0$: Holding of meetings and Participation in Social Activities are not associated with each other.

x. $H_0$: Discussion of socio-economic issues is not associated with Participation in Social Activities

xi. $H_0$: Desire for the change of leader does not influence Participation in Social Activities

B. Factors associated with participation in Group Meetings

i. $H_0$: Age and Participation in group meetings are not associated with each other.

ii. $H_0$: Marital status does not influence Participation in group meetings

iii. $H_0$: Educational qualification is not associated with Participation in group meetings

iv. $H_0$: Occupation and Participation in group meetings are not associated with each other.

v. $H_0$: Type of Family does not influence Participation in group meetings

vi. $H_0$: Number of dependants and Participation in group meetings are not associated with each other.

vii. $H_0$: Monthly income is not associated with Participation in group meetings
viii. $H_0$: Period of membership does not influence Participation in group meetings

ix. $H_0$: Regularity in conducting of meetings does not influence participation in meetings

x. $H_0$: Discussion of socio-economic issues is not associated with Participation in group meetings

xi. $H_0$: Change of leader and Participation in group meetings is not associated with each other.

Both the above groups of hypotheses are examined for their validity in Chapter VII.

4.8 DEFINITION OF TERM

i. Member's Perception on SHG

Member's perception on SHG refers to the opinion of SHG members about their group. In order to measure the level of perception, 14 perception-related questions have been given scores on a three-point scale, the members have been divided into three as members with low level of perception, medium level of perception and high level of perception.

ii. SHG

The SHG is defined as a voluntary group valuing personal interactions and mutual aid as a means of altering or ameliorating the problems perceived as alterable, pressing and personal by most of its participants. These groups are voluntary associations of people formed to attain certain collective goals that could be economic, social or both. The policy planners and development planners cherish the myth that poor people do not have the spirit of thrift, but recent reports from different parts of the globe challenge this.

The fifth chapter describes about the Performance of SHGs and Socio Economic Profile of SHG members