Chapter 4

Review of literature and Methodology

Methodology

The methodology of the study includes the following details:

1. Research Design
2. Location
3. Sampling Procedure
4. Operational definitions and measurement of variables
5. Methods for data collection
6. Statistical tools

Research Design

This is an ex-post facto research design as we do not have any control over the independent variables.

Location of the study

The two districts chosen for the study are Kottayam and Ernakulam as they have the largest number of Self Help Groups involved in vegetable cultivation. The details of the taluks, number of SHGs and numbers of farmers selected for the study are listed below.
Table: 4.1
Details of sample selected

<table>
<thead>
<tr>
<th>No.</th>
<th>Particulars</th>
<th>Kottayam</th>
<th>Ernakulam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Taluks selected</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Number of KHDP farmers selected</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Number of Haritha Sangham farmers selected</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>Number of non-SHG farmers selected</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>5</td>
<td>Total number of farmers</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>
List of variables included

The variables were selected after extensive survey of related studies and discussions with subject experts. Then the selected variables were presented to 20 judges to measure the validity of the variables and based on their judgment the following variables were selected.

Definition and Measurement of the variables

To measure each of the variables listed above suitable statements were made and scoring methods were developed based on related literature.

1. Age: Age is the number of years completed by the respondent at the time of interview. Devi And Reddy (1984) used a 3-point continuum to score age of respondents. The scores were:

<table>
<thead>
<tr>
<th>Age</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 35 years</td>
<td>1</td>
</tr>
<tr>
<td>36- 50</td>
<td>2</td>
</tr>
<tr>
<td>Above 50 years</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Annual Income: It is the total earnings of the household for the one year preceding the interview. The scoring developed by Kamarudeen (1981) was slightly modified for the study. The scores used was:
<table>
<thead>
<tr>
<th>Annual income</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Rs. 25000</td>
<td>1</td>
</tr>
<tr>
<td>25000- 50,000</td>
<td>2</td>
</tr>
<tr>
<td>50,000- 75,000</td>
<td>3</td>
</tr>
<tr>
<td>75,000- 1,00,000</td>
<td>4</td>
</tr>
<tr>
<td>More than Rs. 1,00,000</td>
<td>5</td>
</tr>
</tbody>
</table>

3. **Educational Status**: it denotes the level of informal and formal learning achieved by the respondent. The educational status of the respondents is one of the important factors concerning adoption of improved technology. The scoring technique used by Trivedi (1963) was used for the study.

<table>
<thead>
<tr>
<th>Educational status</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>1</td>
</tr>
<tr>
<td>Literate</td>
<td>2</td>
</tr>
<tr>
<td>Primary school</td>
<td>3</td>
</tr>
<tr>
<td>High School</td>
<td>4</td>
</tr>
<tr>
<td>College</td>
<td>5</td>
</tr>
</tbody>
</table>

4. **Experience in vegetable cultivation**: It is the number of years that the farmer has been continuously engaged in vegetable cultivation (Seema B, 1986). It was measured on a 4- point continuum:
No. of years of experience | Score
--------------------------|-----
Up to 5 years             | 1   
6 – 10 years              | 2   
11- 25 years              | 3   
More than 25 years        | 4   

5. **Achievement motivation**: refers to the striving of the farmer to do good work and attain a sense of accomplishment. This variable was measured using scoring technique developed by Desai (1981). Five questions were asked so as to elicit information on the factors that measure achievement motivation. A score of 1 was given to a proper choice while 0 was given to the improper choice resulting in a maximum score of 5 and a minimum score of zero.

6. **Economic motivation**: it refers to the extent to which a farmer is oriented towards profit maximization and relative values he places on monetary gains. This was measured on a 5 point scale (Supe, 1969).

Five statements were presented so as to gather information on this variable. The response varied from SA- strongly Agree, A- Agree, UD- undecided, DA- Disagree, SDA- Strongly Disagree for positive statements and in the reverse order for negative statements. The rating
was 5 to 1 for SA to SDA for positive statements and the reverse for negative statements.

7. **Credit orientation**: it is the attitude of the respondent towards availing of credit for productive purposes. It was measured by asking five questions with dichotomous answers. Two points were given for proper choice while one point was given for improper choice. Therefore the maximum possible score was 10 while minimum possible score was five.

8. **Innovativeness**: defined as the degree to which the respondent farmer was early in adoption of innovations. It was measured by directly asking the question when they would adopt a new technology. This method was adopted by Selvanayagam(1986). The scoring method used four statements. The responses were given scores on a 4 point continuum.

9. **Risk orientation**: refers to the degree to which the respondent farmer is oriented towards encountering risk and uncertainty in the adoption of innovations in farming. Supe (1967) measured risk orientation using six statements the responses to which were recorded on a 5- point continuum: Strongly Agree (SA) - 5, Agree
(A) - 4, Undecided- 3, Disagree-2, Strongly Disagree-1 for positive statements and the reverse order for negative statements.

10. **Market perception**: it is the degree of perception of the farmer about different marketing channels. It was measured by using the scoring technique used by Nair (1969). Statements were presented to the sample farmers on the perceptions regarding grading, pricing and selling. Favorable answers were given 2 points while unfavorable ones were given 1 point each.

11. **Cosmopolitanism**: it refers to the tendency of the farmer to be in contact with outside village on the belief that all needs of an individual cannot be met within the village. Nelson (1992) measured cosmopolitanism enquiring about the frequency and purpose of visit outside the village and the membership in organizations outside the village. The responses were measured on a 5- point continuum with 5 point to the most favorable reply to one point to the least favorable response.

12. **Social participation**: defined as the participation of individuals in social institutions either as members or as office-bearers. It was measured using questions which indicate whether the farmer is a member of any of the local organizations( one point each for each
of the organizations mentioned), the nature of participation (office bearer-2, membership-2, no membership-1) and the regularity of participation (regular attendance-2, sometimes-1, no attendance-0) .

It was based on the method developed by John (1999).

13. **Knowledge about scientific cultivation practices**: This is measured through measuring their response to a set of statements in relation to scientific cultivation of vegetables.

2. **Group Variables for analyzing empowerment**

The relevant variables that constitute empowerment were finalized from a list of probable variables according to the opinion of five subject experts and review of current literature.

1. **Group co-operation**: it is the tendency of the group members, to associate and work with other members of the group, in striving towards the achievement of goals.

Five statements were presented to the respondents and the responses were recorded on a 3 point continuum with responses ranging from Always (A) - 3, Sometimes (S)-2 and Never (N)-1. The maximum possible score was 15 while the minimum possible score was 5.
2. **Transparency**: refers to the extent to which the activities of the group are open and clear to all the members of the group.

Four statements were presented to the respondents and the responses were recorded on a 3 point continuum with responses ranging from Always(A)- 3, Sometimes(S)-2 and Never(N)-1. The maximum possible score was 12 while the minimum possible score was 4.

3. **Group leadership**: refers to the effectiveness of leaders in promoting the stability and success of the group.

It was measured by presenting five statements, related to the quality of present leadership in the group, the degree of conformance to which were to be indicated as Always (A)-3 points, Sometimes(S)-2, or Never(N)-1. The maximum possible score was 15 while minimum possible score was 5.

4. **Interdependence of members**: it is the extent to which the members are dependent on each other for effective functioning of the group.

It was measured by scoring the responses to five statements on the interdependence among the members of the group. The responses were
recorded on a 5 point continuum with responses ranging from Strongly Agree (SA) - 5, Agree (A) - 4, Undecided- 3, Disagree-2, Strongly Disagree-1 for positive statements and the reverse order for negative statements. Thus the maximum possible score was 25 while the minimum score was 5.

5. **Group cohesion**: refers to the degree to which the group members feel related to one another and are motivated to remain in the group.

It was measured by presenting five statements, the degree of conformance to which were to be indicated as Always (A)-3 points, Sometimes(S)-2, or Never (N)-1. Thus the maximum possible score was 15 while minimum possible score was 5.

6. **Group interaction**: it is the tendency of the members to get in touch with other members of the group and freely mix with them without any formality or inhibition.

It was measured by presenting five statements the degree of conformance to which were to be indicated as Always (A)-3 points, Sometimes(S)-2, or Never (N)-1. Thus the maximum possible score was 15 while minimum possible score was 5.
7. **Accountability**: it is the extent to which the members are answerable for the performance of responsibility or achievement of the group objectives as mutually agreed upon. It was measured by presenting four statements the degree of conformance to which were to be indicated as Always (A)-3 points, Sometimes(S)-2, or Never (N)-1. Thus the maximum possible score was 12 while minimum possible score was 4.

8. **Need satisfaction**: defined as achieving individual member’s needs and requirements by the group within the stipulated time period. The responses were recorded on a 5 point continuum with responses ranging from Strongly Agree (SA) - 5, Agree (A) - 4, Undecided- 3, Disagree-2, Strongly Disagree-1 for positive statements and the reverse order for negative statements. Thus the maximum possible score was 20 while the minimum score was 5.

9. **Involvement in decision making**: it is the frequency with which the group members were involved in generating ideas, evaluating opinions and making a choice from among the available options.

It was measured using four dichotomous statements. The positive responses were given 2 points each while negative responses were given
one point each. Thus the maximum possible score was 8 while the minimum possible was 4 points.

10. **Equity**: refers to how far the group minimizes or eliminates inequalities in the distribution of production inputs and output among the members.

The responses were recorded on a 5 point continuum with responses ranging from Strongly Agree (SA) - 5, Agree (A) - 4, Undecided- 3, Disagree-2, Strongly Disagree-1 for positive statements and the reverse order for negative statements. Thus the maximum possible score was 20 while the minimum score was 5.

3. **DIMENSIONS OF EMPOWERMENT**

1. **Leadership propensity**: The term leadership propensity refers to the ability of the SHGs member to influence others towards attaining the objectives of the group.

   It was measured by presenting five statements the degree of conformance to which were to be indicated as Always (A)-3 points, Sometimes(S)-2, or Never (N)-1. Thus the maximum possible score was 15 while minimum possible score was 5.
2. **Self confidence**: refers to the extent to which an SHG member has faith in his/her powers, abilities and resourcefulness to perform the activities related to his/her personal and social life.

Eight statements related to different aspects of self confidence were presented to the respondents. The responses were recorded on a 5 point continuum with responses ranging from Strongly Agree (SA) - 5, Agree (A) - 4, Undecided- 3, Disagree-2, and Strongly Disagree-1 for positive statements and the reverse order for negative statements. Thus the maximum possible score was 20 while the minimum score was five.

3. **Employment generation**: It is the extent to which the activities of the SHG generated additional employment opportunities. Employment generation was measured by considering the number of man days of employment generated per year as members of the group.

The scoring procedure developed by Lakshmi (2000) was used to measure the impact. The possible score range is 0 to 3.
4. **Increase in income**: It refers to the increase in total earnings per annum per farmer from agriculture and allied sectors, self employment and agro-based enterprises as the result of being a member of the SHG.

The measurement of increase in income was done by asking the respondents to state the increase in total income after the implementation of the group activities. The scoring procedure developed by Lakshmi (2000) was used with some modification.

<table>
<thead>
<tr>
<th>Increase in income (Rs/A)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to Rs. 1000</td>
<td>1</td>
</tr>
<tr>
<td>Rs.1000-2000</td>
<td>2</td>
</tr>
<tr>
<td>Rs. 2000-3000</td>
<td>3</td>
</tr>
<tr>
<td>Rs. 3000 and above</td>
<td>4</td>
</tr>
</tbody>
</table>
5. **Decision making:** In this study the decision making pattern was referred to the nature of participation of the individual in making decisions in the group activities. An SHG member may take independent decisions or consult his family members or any other reference group members to take decisions.

The scoring technique adopted by Ravichandran (1980) was used for this study with suitable modifications

<table>
<thead>
<tr>
<th>Type of decisions</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent decisions</td>
<td>3</td>
</tr>
<tr>
<td>Joint decisions with family members</td>
<td>2</td>
</tr>
<tr>
<td>Joint decision with consultations</td>
<td>1</td>
</tr>
<tr>
<td>With members outside family</td>
<td>0</td>
</tr>
</tbody>
</table>

**Empowerment**

Empowerment has been defined by several authors as the ability to choose the most beneficial alternative from among the available choices considering the merits and demerits of them.
Coombs and Ahmed (1964) identified empowerment as essential for improving small farmers. The authors pointed out that small farmers need external help in becoming better planners and farm managers.

Hunter (1978) has investigated farmer groupings of the developing countries of Asia. He points out that convenience of official delivery of financial support is a major reason for promotion of farmer groupings. He analyzed the groups based on size. They varied from small face-to-face groups to larger committee-run groups leading to organizations. The groups were analyzed based on the degree to which they are self-managed or externally managed. The author drew the staff pattern for such an ideal scheme and it included model farmers employed for transfer of technology.

Singh (1978) measured empowerment by developing an index considering whether the various decisions in crop cultivation and participation in various groups were taken by the farmer himself or after consultation with others.

Nandapurkar (1982) identifies empowerment as a variable in the entrepreneurship skills of the small farmers. He defines empowerment as the degree to which an individual justifies his selection of the most
efficient means from among the available alternatives for achieving the maximum possible economic profits.

Griffen (1987) defines empowerment as a process of awareness and capacity building to greater participation, to greater decision making power and control and to transformative action.

Rappaport (1987) is of the opinion that empowerment conveys both a psychological sense of personal control or influence and a concern for actual social influence, political power and legal rights.

According to Devadas and others (1988) empowerment is equipping oneself to improve the living conditions. It does not identify power in terms of domination over others but as the ability to gain control over crucial material and non-material resources and thus enables to minimize risk.

McArdle (1989) defines empowerment as the process whereby decisions are made by the people who have to bear the consequences of those decisions.
Korten (1989) describes the process of empowerment as one, which ensures that local resources are locally controlled and control being broadly shared among the members.

According to Scott and Jaffe (1991) empowerment means increasing competitiveness and profitability by enhancing the value of the contribution of the people in the organisation.

Osbaldeston (1993) defines empowerment as a process of creating circumstances where people can use their faculties and abilities at the maximum level in pursuit of common goals both human and profit oriented. He is of the opinion that empowerment can reveal sources of managerial talent which were previously unrecognized.

Empowerment is finding new ways to concentrate power in the hands of people who need to get the job done- putting authority, responsibility, resources and rights at the most appropriate level for each task (Clutterbuck, 1995).

According to Pinto (1995) empowering is development of skills and abilities of people to enable them to manage better, have a say in or negotiate with the existing development delivery systems.
According to Stoner and Freeman (1995) empowerment is the act of delegating power and authority to a subordinate so that the goals of the development programme could be achieved.

Sekhar and Rao (2001) outlines empowerment as a long drawn out process comprising of enhancement of skills, capacity building, gaining confidence and meaningful participation in decision making.

Several studies have identified the different dimensions of empowerment.

**Dimensions of empowerment**

*Age* (Dipali, 1974; Mohanty, 1994) is considered as a factor influencing decision making.

Ramachandran (1992) observes that the *socio-economic status* of participant farmers differs significantly from non-participant farmers in rice minikit trials.

Somasundaram (1976) and Kamarudeen (1981) find positive and significant association between *scientific orientation* and adoption behavior.
Menon (1995) observes that **innovativeness** contributes to the changing farming conditions and continue to raise the performance levels of farmers. Thus a modern farmer who is innovative is willing to change his beliefs, attitudes and ways of action in response to new developments and challenges.

Several researchers have reported that **progressiveness** of farmers is characterized by frequent contact with external agency and have positive and significant association with rational behavior in decision making process. (Dande, 1972; Dwarikanath et. al., 1975; Bhaskaran, 1978; Shailaja, 1981; Jaleel, 1992)

According to Nandapurkar (1982) **decision making** is the degree to which an individual justifies by selection of the most efficient means from among the available alternatives based on scientific criteria for achieving maximum economic profit. He identifies decision making as an important dimension of empowerment.

Khare (1976) is of the opinion that **self-confidence** would play an important role in the success of a creator or an innovator. Joseph (1983), Nizamudeen (1996), Varma (1996) and Sangeetha (1997) reported that a
majority of the respondent small and marginal farmers belonging to high self-confidence group.

Ramachandran (1992) observes that **management orientation** shows positive and significant relationship with the inclination to adopt innovations. Menon (1995) defines management orientation as the degree to which a farmer is oriented towards scientific planning, production and marketing functions of farm enterprises. It is one of the determinants of modernity, which groom and refine an individual in his orientation towards management.

**Achievement motivation** is defined in many studies as the desire to do well for a sense of personal accomplishment but not so much for the sake of social recognition. Devi and Reddy (1984) and Hussain (1994) associate achievement motivation with empowerment.

Fairchild (1967) defines **leadership** as an act of organizing and directing the interests and activities of a group of persons associated in some projects or enterprise by a person who develops their co-operation through securing and maintaining their more or less voluntary approval of the ends and methods proposed and adopted in their association.
Padmanabhan (1981), taking the **level of aspiration** as a dimension of empowerment, observes that the majority of the small farmers and agricultural laborers have low level of aspiration. Seema (1986) defines level of aspiration as the degree to which the individual sets his goals realistically in relation to his physical and mental attributes and in accordance with his environment.

Jaleel (1992) and Gangadharan (1993) report positive and significant relationship between **risk orientation** and adoption.

Many studies indicate that there exists a significant relationship between **social participation** of farmers and participation in development programmes. Gowda (1980) reported that the social participation of small and marginal farmers influence their participation in programmes to improve ragi productivity. Shailaja (1990) observes that the majority of the female agricultural labourers have low social participation.

Many studies indicate cosmopolitanism as a dimension of empowerment (Sabapathy (1998); Hussain (1994); Nizamudeen (1996)).

A favorable **attitude** towards the development programme is essential for the empowerment of participant farmers. Clifford and Richard (1971)
define attitude as the learned orientation or disposition towards an object or situation, which provide a tendency to respond favorably or unfavorably to the object or situation.

**Participation**

Participation is the voluntary involvement of people in any enterprise. It is operationalised as the social experience shared by individuals and groups who live in definite social relationships to each other in the society.

Ookley (1987) highlights the very different ways in which the word “participation” is used. “Participation” can describe attempts to encourage rural people to collaborate with programmes, which have been devised to cover activities of community development in which community involvement is essential for the survival of the project. It can also be applied to the initiatives for the formation of people’s organizations as a means of providing the rural poor a way for gaining a voice in the decision making. It is a process by which economical and political empowerment of hitherto powerless people is achieved. Therefore participation has to be understood as a process and not as some kind of static end product of development.
According to Saiyadeen (1988) participation refers to sharing the decision-making powers with the subordinates in an appropriate way.

Mishra (1994) stated that the term “participation” has three conditions. Participation means co-operation, taking part in something. According to him participation can be direct or indirect, passive or active and it is one of the most effective techniques to achieve the desired goals of development.

In general, participation is a value in itself and a means by which the society can tap and maximize the use of human and material resources for the benefit of its members. The extent and quality of participation differ with individuals. The extent and nature of participation of farmers in the planning and implementation of different agricultural development programmes decide their success.

In the context of the Ganga Action Plan implementation, Ahmed (1994) argued that techno- centric approach of implementation superimposed on a community who were differently affected by the pollution did not help participation. It stressed upon the necessity of participation in decision-making as a crucial element for successful implementation of any project.
Ookley (1991) has identified two streams of participation- (1) one views participation in the context of the development project as the key input in terms of inclusion of human resources in the developmental project and (2) participation as a process by which the common people seek to have some influence to gain access to the resources which would help them sustain and improve their life situation.

**Calculation of Empowerment Index**

For each of the five dimensions of empowerment a score is obtained by dividing the obtained score of the individual with the maximum possible score for each of the dimension. Summation of the score for the dimensions gives the empowerment index for the individual member. Based on the empowerment index value the sample can be classified into low, medium and high empowerment classes (Meera, 2001)