CHAPTER – 4

RESEARCH METHODOLOGY
4. Research Methodology

This research study is to determine the difference in empowerment levels of members of women cooperatives and self employed women and wage earners who are not members of cooperatives. Their perception on level of empowerment was measured on a Likert scale ranging from 1 to 4; Where 1 represents minimum level of empowerment and 4 represents maximum level of empowerment.

4.1 Research Design

Field survey was conducted to assess level of women empowerment. A representative sample was selected using simple random sampling for both sets of data- members of women cooperatives and women employed in unorganized sector.

The research was carried out using primary data directly collected from survey of women employed in cooperatives in North and West of India and women employed in unorganized sector in respective states, and the secondary data from published information and digital databases accessed through internet. Information collected from secondary data sources included books, magazines, journals, reports and websites. A systematic review of government initiatives in Five Year Plans and report of various Commissions such as 1st National Commission on Labour (1966), 2nd National Commission on Labor (2000), National Commission on Self Employed Women (1987),
National Commission for Enterprise in Unorganized Sector (2004), on women empowerment was conducted. Further, Data on the internet was located using search engines like Google, Bing, EBSCO and Proquest.

To assess level of women empowerment, a representative sample was selected using simple random sampling for both sets of data- members of women cooperatives and women employed in unorganized sector.

The sample size was selected based on the estimate that 40% of women would have been empowered due to their association with the cooperatives, and a comparable sample was drawn from women employed in unorganized sector.

The area of study comprised of women cooperatives in 4 states North West of India - Uttrakhand, Rajasthan, Gujrat and Maharashtra. In Uttrakhand nine villages were surveyed: Langaso, Jilaso, Ghat, Umatta, Kaleshwar, Dhari, Saulli, Muradi, Mungra. In Rajasthan seven villages were surveyed: Keshavla, Mohana, Fagi, Jhopia, Ghudalia, Chamundia. In Gujrat six cooperatives in three cities were surveyed: Pithapur, Kadi and Ahmedabad. In Maharashtra five cooperatives in two cities were surveyed: Mumbai and Thane.
The questionnaire was administered by interviewing members of cooperatives with assistance from facilitators (the group head, treasurer or supervisors) provided by cooperatives and federation. They also helped in identifying and conducting personal interview of women employed in unorganized sector.

For each group – women employed in cooperatives and women employed in unorganized sector- separate questionnaire was designed. For members of women cooperatives 9 questions were asked to assess their socio-economic background. 4 questions were asked to understand their reasons for joining cooperatives and 39 questions were asked to assess their level of empowerment.

For self employed and wage earner women similar set of 9 questions were asked to assess their socio-economic background. A different set of 4 questions was asked to understand their reasons for having enterprise/working. A set of similar 39 questions was asked to assess their level of empowerment.

The set of 39 questions was rated on Likert Scale ranging from 1-4, where score of 39 represents minimum level empowerment and 156 represents maximum level of empowerment.
4.2 Sampling Design

Operationally, sampling design is the heart of sample planning. Sample design specifications include the method of selecting individual sample members, involves both theoretical and practical (e.g., cost, time, labor involved, organization) considerations. (Green and Tull, 2003)

To assess level of women empowerment, a representative sample was selected using simple random sampling for both sets of data- members of women cooperatives and women employed in unorganized sector.

4.2:1 Type of Sample

To ensure balanced representativeness of the population, simple random sampling was used. A Simple random sampling is the one in which each sample element has a known and equal probability of selection, personal bias of the researcher does not influence the selection.

To assess the level of empowerment, a representative sample was selected using simple random sampling for both the group of women workers.

Cooperatives Group: It comprises of members of women cooperatives. A representative simple random sample of 143 was selected from Himalayan Action Research Centre (HARC) in

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Uttrakhand, a sample 145 from Rajasthan Cooperative Dairy Federation (RCDF)-SARAS in Rajasthan, a sample of 164 from Gujarat State Women’s Sewa Co operative Federation Ltd (SEWA) in Gujrat, a sample of 116 from MarketPlace: Handwork of India, Maharashtra.

**Unorganized Sector Group:** It comprises of women employed in unorganized sector. A representative simple random sample of 150 from Uttrakhand, 123 from Rajasthan, 137 from Gujrat and 120 from Maharashtra was selected.

### 4.2:2 Sample Frame

Sampling frame is the actual set of units from which a sample has been drawn. In this study the sample frame is four women’s cooperatives from four states of North West India and self employed women and wage earner women in unorganized sector of these respective states. The researcher took care to ensure that the source list is as representative of the population as possible. *Areas where cooperative intervention is very high and those where cooperatives process is just beginning, both were included in sample, Simultaneous study of self employed and wage earner women in unorganized sector of these respective states.*

### 4.2:3 Sample Size

Somewhat related to sample design, but in many ways a separate decision area for the investigator, is the determination of
sample size. In general size of the sample is directly related to precision.

It was expected that about 40% of women will have been empowered due to their association with the cooperatives. With this assumption sample size required comes to 600.

Researcher aimed at sample of 600 from women employed in cooperatives and comparable sample from women employed in unorganized sector i.e., a total sample of 1200 respondents.

However, some forms were rejected due to incomplete data and the actual sample came out to be 568 for women employed in cooperatives and 530 for women employed in unorganized sector, i.e., a total sample of 1098 respondents.

4.3 Area of Study

The study encompasses women cooperatives and self help groups in 4 states of North West India.

Following is the list of women cooperatives under study:

- Himalayan Research Action Centre (HARC) in Uttrakhand.
- Rajasthan Cooperative Dairy Federation (RCDF)-SARAS in Rajasthan
- Gujarat State Women's Sew Co operative Federation Ltd (SEWA) in Gujarat
- MarketPlace : Handwork of India (Maharashtra)
It also undertakes the simultaneous study of self employed and wage earner women in unorganized sector of these respective states.

4.4 Questionnaire Design

Survey method requires some procedure for standardizing the data collection process so that the data obtained are internally consistent and can be analyzed in a uniform and coherent manner. In accordance with the topic of research and the purpose of testing hypothesis, a standardized questionnaire was designed to ensure comparability of data, increase speed, add accuracy of recording and facilitate data processing.

The survey used different types of structured questions, including multiple choice questions, dichotomous questions and scales.

The role of questionnaire is to ensure a structured interview across all subjects. It is an important element in the success of data collection. The survey through questionnaire was administered by the interviewer through face- to- face interview.

To gain insights into development of women and to understand the operations of cooperatives, before formulating questionnaire, key officials responsible for cooperatives and experts in the city were met. Since the intention was to gain an understanding of the relevant issues, the interviews typically involved a great deal of probing and exchanges.

The type of information obtained in a questionnaire may be classified as: Basic information that relates directly to the research
problem. Classification information used to classify the respondents and understand the results. Identification information includes name and address for verifying that respondents listed were actually interviewed. (Malhotra, 2005)\textsuperscript{131}

For the thesis two sets of questionnaires were prepared. One for members of women cooperatives and second one for self employed women and wage earners in unorganized sector.

Further the questionnaires administered to women cooperatives can be classified into following three divisions:

1. Identification information: It includes general preliminaries like name of cooperative, name and age of respondent and her address.
2. Classification information: It consist of questions which include socioeconomic and demographic characteristics like marital status, education, income, husband’s education, size family and having bank accounts.
   a. Cooperative Process: It consist of question on reason for joining a cooperative, on training and education provided by cooperatives and community development work done.
3. Basic information: It consists of questions on six parameters along which level of empowerment is measured. They are

income, education, health, decision making, media contact and social contact.

**Questionnaire administered to self employed women and wage earners in unorganized sector** can be classified into following three divisions:

1. Identification information: It includes general preliminaries like name of cooperative, name and age of respondent and her address.

2. Classification information: It consist of questions which include socioeconomic and demographic characteristics like marital status, education, income, husband's education, size family and having bank accounts.
   a. Enterprise Process: It consists of question on reason for starting the enterprise or taking up work, on training and education and community development work.

3. Basic information: It consists of questions on six parameters along which level of empowerment is measured. They are income, education, health, decision making, media contact and social contact.

**The questionnaires are included in Annexure-I, Annexure-2.**

The Six parameters in the basic data were rated on a 4 point rating scale where 1 meant no empowerment and 4 meant maximum
empowerment. The purpose of a rating scale is to allow respondents to express both the direction and strength of their opinion about a topic.

The questionnaire was carefully worded so that respondents can clearly and easily understand. If a question is worded poorly, respondents may refuse to answer it or may answer it incorrectly. This first condition is known as non response and may increase the complexity of data analysis. The second condition leads to response error. To avoid these problems researcher has used ordinary words and stayed away from generalizations and estimates in questions.

4.5 Reliability Test
The questionnaire was further tested for Cronbach Alpha $\alpha$ reliability to test the internal consistency of the items. This is a general formula for estimating the reliability of a test consisting of items on which different scoring weights may be assigned to different responses. (Cohen et al., 2003)\(^{132}\)

Reliability refers to the consistency of scores obtained by the same person when re-examined with the same test on different occasions or with different sets of equivalent items or under variable examining conditions.

SPSS 15 was used to analyze the data. In this research, Cronbach Alpha reliability coefficient for the basic data in questionnaire

(39 questions) was found to be **0.89** which is within the acceptable range.

### 4.6 Method of Data Collection

To assess the level of empowerment among women employed in cooperatives and those employed in unorganized sector, a representative sample size was selected, followed by face to face interviews.

For administering the questionnaire, the researcher opted for a **structured interview** because a structured interview is one in which each subject or respondent is asked a series of questions according to a fixed and a prepared interviewing schedule. Semi structured interview was avoided as it could mean different things to different people.

For both set of respondents i.e., the members of women cooperatives and women employed in unorganized sectors, questionnaire was administered through face to face interviews for following reasons:

- The respondents had low level of education and were ill equipped to fill the questionnaire themselves.
- The respondents could immediately clarify doubts with the researcher.
• The respondents were more willing and gave better response when they met the researcher in person.

• These interactions gave many insights which have been included in general findings of the research.

The researcher overcame the possibility of ‘mixing up data from different interviews and not completing each questionnaire at the time it took place’ (Ghauri and Gronhaug, 2002) by insisting on answering all questions by the respondent and compiling the data as soon as it was recorded. Before the raw data contained in the questionnaires can be subjected to statistical analysis, they were converted into Microsoft Excel data files for suitable for analysis.

These Microsoft excel database files, were later used in SPSS analysis. The quality of analysis depends upon the care exercised during data preparation phase.

4.7 Response Rate

Response rate is calculated by the number of individuals who respond and complete the questionnaire divided by the total number of individuals contacted as given below:

Response rate: \( \frac{\text{Number of individuals who respond and complete the questionnaire}}{\text{Total number of individuals contacted}} \times 100 \)

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Response rates are strongly affected by the method of data collection. In general, more the interaction between the potential respondents and researcher, higher will be the response rate. The researcher collected the data using face to face interviews. (De Vaus D.A, 2002)\textsuperscript{134}

In this research, a total of 600 women in cooperatives were interviewed to complete the questionnaire. Out of which 568 members agreed, which was used for the study. A total of 600 women were approached for interview in unorganized sector, out of which 530 agreed, which was used in the study.

A total of 1200 respondents were approached, out of which 1098 respondents from a cross section of people belonging to different states and different age, Marital Status, level and employment filled the questionnaire.

Thus response rate of questionnaire among women cooperatives was \textbf{94.6}\% and among women in unorganized sector was \textbf{88.3}\%. Generally, the highest response rates in surveys based on random samples are achieved when personal face to face interviews are conducted with the respondent. For this purpose the researcher conducted face-to-face interviews.

In order to improve the responses, the researcher first established communication via emails and phone with the office bearers in cooperatives, who later facilitated her visit to different part of

cities and villages. They were also very supportive of the research and accompanied her in the field.

It was more challenging to interview women in unorganized sector. The researcher tried to increase the trust by displaying the official documents and stationery demonstrating it as an academic research work. Also great help and assistance was given by members of cooperatives who facilitated interviews with self employed and wage earner women in unorganized sector who were not members of cooperatives.

4.8 Time Period of Study

The researcher started collecting the data in 2007. The pilot study was undertaken in 2008 and 2009. The primary data collection was completed by December 2010.

The researcher would like to add that recent secondary and tertiary source of literature were included in the literature review.