



*Research
Methodology*



CHAPTER-3

METHODOLOGY

For any research to be effective and useful, it is important to decide upon specification of the problem, conceptual definitions, derivation of hypotheses to test, and defining of population to be studied. Research methodology is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance. It enables the researcher to answer questions regarding validity, objectivity, consistency, accuracy and economy as far as possible. Further unless an appropriate methodological approach is adopted; the possibility of fulfilling the aims and objectives of the study may be endangered.

Thus methodology is not concerned with building knowledge but deals with the procedures conceptual, logical and research by which knowledge is built. This chapter details out the suitable research methodology used to achieve the research objectives discussed under following subheads -

- Research design
- Locale of the study
- Sample and sampling procedure
- Data collection procedure
- Tool for data collection
- Statistical procedure used to analyze the data

3.1 Research design:

The study is descriptive in nature, which refers to the description of social situations, social events, social systems and social structures etcetera on the basis of scientific observation; expected to be more accurate and precise than casual.

3.2 Locale of the study:

Ours is a complex country in which each state has its own cultural, social and economic variations. Hence the study has to be limited to a particular area with sufficient number of users available across all its regions.

The researcher covered two districts; Muzaffarnagar and Saharanpur of Uttar Pradesh. These districts were selected because both districts primarily are agricultural area and comprises of many villages and people of these villages use mobile phone in their families.

Muzaffarnagar lies in the doab region in the Western Uttar Pradesh state in northern India. Saharanpur is a city and a municipal corporation in the state of western utter Pradesh bordering the states of Haryana and Uttarakhand and closed to the foothills of Shivalik range; it lies in the northern part of the doab region.

3.3 Sample and sampling procedure:

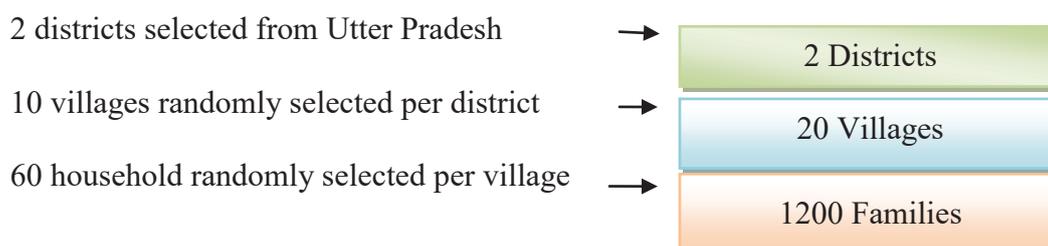
Multistage purposive technique was adopted in this investigation. It is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include specialist knowledge of the research issue or capacity and willingness to participate in the research.

To cover wide geographic area, 20 villages (10 from each district) were randomly selected (Census of India defines rural as any habitation with a population density less than 400 per sq. km., where at least 75 percent of the male working population is engaged in agriculture and where there exists no municipality or board). List of selected villages has been given in appendix 1.

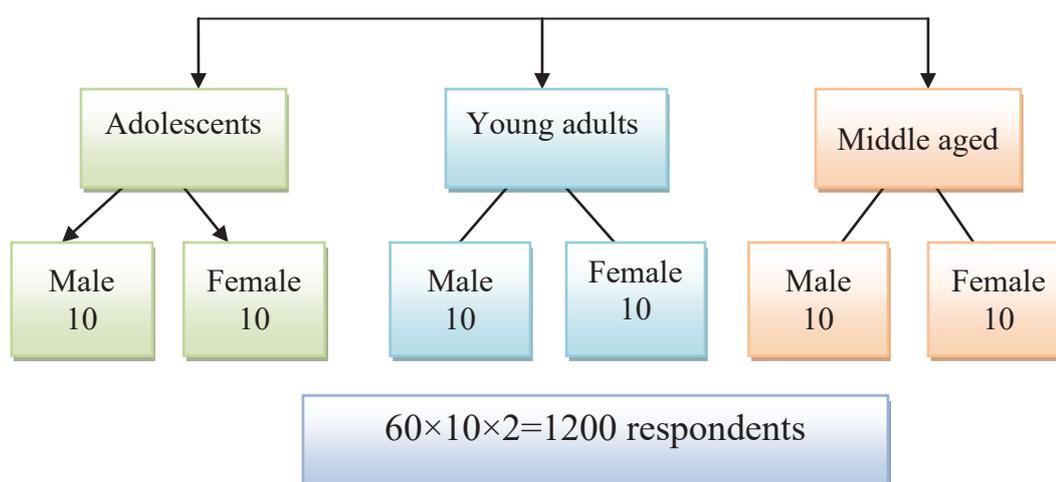
The primary data for sampling was collected through structured interview schedule. Families were contacted through ‘Snow ball’ procedure. Interview schedule was used to elicit information about mobile phone availability in the family, youngest and eldest users as well as willingness to participate in the study (if selected). This information was utilized for within family sampling and select respondent from each family.

After preparing list of families using mobile phones in each selected village, 1200 households (60 from each village) were selected randomly. Efforts were made to include families with variations in their demographic variables. Each family was treated as a case and one member from each selected family was selected for seeking responses. Respondents were selected in a way to include members of different age and sex (adolescents, young adults and middle aged; males and females). Thus, the final sample comprised of 1200 respondents for collecting primary data.

Brief summary of sampling



Within family sampling (age X gender) from each village



3.4 Procedure for data collection:

Study data was collected through surveys using semi structured questionnaire developed by the investigator. The questionnaires were distributed among the selected respondents. Questionnaires were filled by the investigator for those not able to fill. The questionnaires began with socio demographic characteristics of respondents, number of family members using mobile phones, age and sex of users followed by questions on their usages of mobile phones, positive and negative impact on them as a whole.

Focused group discussions (FGD) were held to get suggestions of respondents on potential of the mobile phone use in sustainable rural development

(with reference to opportunity production, capability enhancement, knowledge generation and social enabling).

3.5 Tool for data collection:

Semi structured, self-administered, questionnaire was developed by the investigator. The questions in the questionnaire were mainly closed ended (Multiple choice questions, Likert scale and ranking of attributes type), to assist the respondents in answering and the researcher in easier analysis. Some of open ended also questions were included for qualitative and seeking detailed information.

Description of tool: The questionnaire comprised of three parts-

- **Part 1** Family background information included- type of family, number of family members, number of phone users in family, mobile phone use since number of years, Family based details of phone users (including gender, age, education, choice of handset, choice of network, using more than one SIM card, members using phone for making and receiving call only).
- **Part 2** Mobile phone use pattern including various aspects such as purchase decisions, services used, difference in the use of services and service providers, amount and time of use, rules and restriction for use, change in achievement, family and social relations.
- **Part 3** Open ended questions were used to study positive/negative impact, change in achievement, family and social relations and limitations of mobile phone use in rural families, including economic/, technological, socio-cultural and infrastructural barriers.

Tool development process- Pilot survey was conducted prior to development of tool. 50 rural families (not part of final study) were interviewed to identify use pattern, limitations, positive/negative impact, life pattern changing. Based on the responses, semi structured questionnaire was developed to get responses as per objectives of the study. Before given the final shape, developed questionnaire was given to 2 Human development persons, 2 educationists and 2 psychologists to provide feedback on language content, ambiguities in the statements and to comment about the length, structure and wording of the instrument. Qualitative evaluation was done which indicated the need for certain modification in the format, sentence construction and more appropriate use of words. This tool was further given to the same respondents for their comments on final draft (not part of final study).

3.6 Method of data representation and analysis:

The collected data were checked for completeness and accuracy. After which those satisfied to be complete and accurately filled were numbered to avoid double entry. Respondents were re contacted and requested to fill incomplete questionnaire. The coded data were entered into Excel sheet and analyzed in terms of frequency and percentage. The findings were tabulated and represented with the help of suitable diagrammatic and graphical presentation, such as Pie chart, Bar chart, Pictograph. Qualitative explanations have been provided with context based illustrations and generalizations.