data if collected and analysed systematically and properly can give authenticity to one's research. So it is very important for a researcher to have good knowledge of the different methods of primary data collection.

6.3.1 Methods of Primary Data Collection (Qualitative and Quantitative)

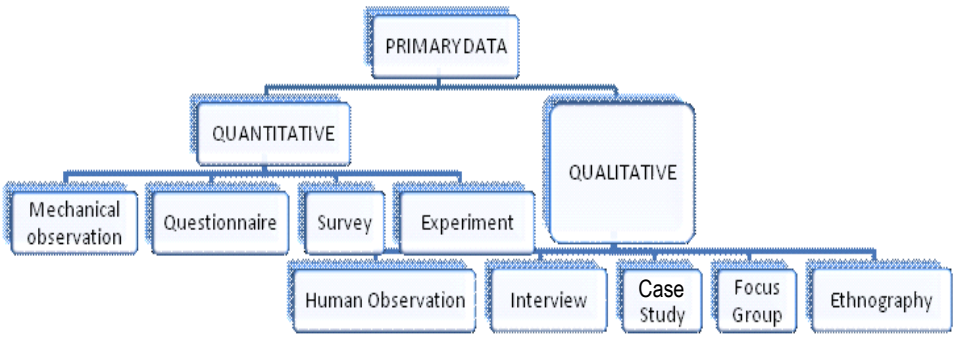
A researcher can make use of several methods for the collection of primary data in his/her research. Generally different methods are employed by A researcher based on whether the research is quantitative or qualitative. In quantitative research the most common methods of data collection are:

- Mechanical Observation
- Questionnaire
- Survey
- Experiment

The most common methods of primary data collection in qualitative research are

- Human Observation
- Interview
- Case study
- Focus group
- Ethnography

Table 2: Primary Data Collection Methods



➢ METHODS OF PRIMARY DATA COLLECTION IN QUANTITATIVE RESEARCH

- **Mechanical Observation:** Mechanical observation is an observation technique that involves mechanical observer either in conjunction with or in lieu of human observers. It involves using various types of machines to collect the data, which is then interpreted by the researchers. With continuing improvements in technology, there are many "mechanical" ways of capturing data in observation studies. The most commonly used means of mechanically gathering data in an observation study is a video camera. Other examples are the audiometer, the psycho galvanometer, the pupilometer, the eye-camera etc. It is important to note that mechanical observation should always be conducted with the knowledge and permission of the respondent. One example of mechanical observation is a camera recording of who watches which particular news channel.
- **Questionnaire:** A questionnaire is a set of predetermined question used to collect factual information from all respondents. Generally a questionnaire is a research instrument typically used in survey research. It consists of a series of questions that are specific and relevant to the research topic. These questions should be short, simple, clear, attractive and presented in a good order. A simple set of questionnaire consists of two types of questions-fixed or close ended(for example- 'Are you literate?') and open ended('What is your opinion about the present government?')
- **Survey:** Survey is the technique of gathering data by asking questions to people who are thought to have desired information relating to the research area. For this, the researcher prepares a formal list of questionnaire and uses a non disguised approach to interact with the respondents. Generally, survey yields a broad range of information to the researcher on socio-economic as well as cultural and political attitudes and opinions of the respondents. The data collected through this method is reliable and reduces the

variability of results. However very often it is found that respondents are unwilling, unable or liable to provide wrong information to the researcher while the survey is being conducted.

- **Experiment:** It is the most common method of research used in physical sciences such as physics, chemistry, biology, medicine etc as well as in social sciences like sociology and psychology. In experimental research one or more variables are manipulated to determine their effect on a dependent variable. So it is a systematic and scientific approach that uses manipulation and controlled testing to understand a causal relationship. Generally experiments are conducted to predict certain phenomenon and to explain some kind of causation; for example the level of anxiety created by a particular drug on people belonging to different age groups

➢ METHODS OF PRIMARY DATA COLLECTION IN QUALITATIVE RESEARCH

- **Human observation:** Human observation is a planned methodical watching that involves human observers to collect data in the study. The observer selects, records and encodes the behaviour of his/her respondents in a naturalistic or familiar surrounding. For these, six distinct dimensions of the respondent can be observed (Zikmund;1996)-
- Physical action like pattern of working, ii) Verbal behaviour like conversation between two persons, iii) Expressive behaviour such as facial expression, iv) Spatial relations like behaviour of a person when there is a change in physical distance, v) Time factor i.e, amount of time spent in a particular activity and vi) Verbal records like slogans shouted during a meeting.
- **Interview:** Interview is a comprehensively prepared, constructed and executed method of verbal questioning. It is a very useful research tool and is drastically different from general interviewing. Personal communication is a must in a research interview where the interviewer is involved in asking the respondent questions

pertaining to the research objectives. The responses of the respondent need to be correctly recorded and later analysed by the interviewer to arrive at the correct conclusions. Interview is a very flexible process because of which it can be divided into a number of categories like- structured, unstructured, standardised, un-standardised, self administered, other administered, individual, group, personal, non personal, focused, telephone interview etc.

- **Case study:** Case study is an in-depth study of a particular situation . It is a method used to narrow down a very broad field of research into one easily researchable topic. For that a researcher studies individuals, institutions, communities, organizations, events or cultures in their natural environment over a certain period of time and gathers data from a variety of sources by using different methods like observations,interview, documents, archival records etc. Generally it is a process employed to investigate or understand a contemporary phenomenon by using different evidential sources. This method originated in clinical medicine (a patient's personal history) and is now a popular method of qualitative data collection. Case studies provide detailed and rich information about a particular research problem and also provides scope for further research in the area. It is a very useful method of research that gives real time, insight and solution into the concerned research problems.
- **Focus group:** A focus group is a small group of six to ten people led through an open discussion by a skilled moderator. The moderator focuses the interview on a specific topic or a situation that has been experienced by the respondents. For example all persons of a particular community are asked about a cultural festival they had just attended. Thus this kind of interview attempts to analyse the effects of a certain experience on the respondents.
- **Ethnography:** Ethnography is a very comprehensive and lengthy form of qualitative research specifically designed to study cultures and groups. In this method people are observed for an extended period of time in their natural setting. In most of the cases the

researcher observes people and society from the point of view of the subject of the study that means he becomes a part of his study area. An example of ethnographic study is a survey on – 'why do some cultures expect their children to marry before the age of 14?'

6.3.2 Advantages of Primary Data

- Primary data gives original research quality, and does not carry bias or opinions of third parties.
- Primary data is specific to one's research area. As such collection of primary data is less time consuming.
- It helps us to arrive at a conclusion by fulfilling our research objectives.
- Primary data is current data and hence very relevant to our research.
- Primary data is first hand data and is collected by researcher with regards to his/her particular research area. Hence it is not shared data.
- Another advantage of using primary data is that the researcher can control how and when he/she collects the information.

6.3.3 Disadvantages of Primary Data

- Collection of primary data is expensive.
- Processing the information out of primary data is time consuming.
- The accuracy of feed-backs received from primary data is questionable. Thus a researcher may arrive at a wrong conclusion.
- It is not feasible to collect information using primary sources when the research area and the sample size is very huge.
- During collection of primary data researchers often tend to ignore ethical considerations like consent and permission of the respondents and maintaining objectivity in the field.

6.4 SECONDARY DATA-MEANING AND DEFINITIONS

Secondary data is the data that has been already collected by and readily available from various sources. As such it is not specific to one's

particular research study . It is cheaper and more easily available to the researcher compared to primary data. Some common sources of secondary data are censuses, information collected by government departments, records of organizations, data collected for other research purposes etc. Unlike primary data , secondary data analysis provides scope for larger scale research. Researchers often opt for secondary data analysis because it saves time and gives near- accurate results. In secondary data analysis the researcher studies pre-existing data which gives him/her an opportunity to understand, re-contextualise and re-construct said data.

6.4.1 Sources of Secondary Data

A researcher can obtain secondary data through two categories of sources-

- **Internal or Unpublished sources:** Governments, organizations, agencies, firms often maintains records concerning important activities and information. Often such records remain unpublished. These constitute the unpublished sources of collection of secondary data. For example parliamentary proceedings, marketing activity, customer feedback, accounting records, financial reports, internal experts etc.
- **External or published sources:** Generally external sources of secondary data constitute those sources that have been published by an individual or an organization. These sources cover a wide range of fields like populations, national income, employment etc. Some of the most important published sources of secondary data are government publications (economic survey, census report), reports of international bodies like United Nations Organizations, World Health Organization, semi government publication(reports of birth, death, education), reports submitted by various committees and commissions to the government (Sarkaria Commission report), private publications(stock exchange), various newspapers and magazines, published research papers and thesis etc.