Chapter- 2: **COLLECTION OF DATA**

STATISTICS FOR ECONOMICS

Points to remember:

1. Collection of data is the first important aspect of statistical survey.
2. Data – Information which can be expressed in numbers.
3. Two sources of data – Primary & Secondary Primary data – data collected by investigator himself secondary data – data collected by someone and used by the investigator.
4. **Difference between Primary and Secondary Data**
   a) Primary data is original data collected by the investigator while secondary data is already existing and not original.
   b) Primary data is always collected for a specific purpose while secondary data has already been collected for some other purpose.
   c) Primary is costlier or is more expensive whereas secondary data is less expensive.
5. **Methods / Sources of Collection of Primary Data :**
   a) Direct Personal Interview – Data is personally collected by the interviewer.
   b) Indirect Oral Investigation – Data is collected from third parties who have information about subject of enquiry.
   c) Information from correspondents – Data is collected from agents appointed in the area of investigation.
   d) Mailed questionnaire – Data is collected through questionnaire [list of questions] mailed to the informant.
   e) Questionnaire filled by enumerators – Data is collected by trained enumerators who fill questionnaires.
   f) Telephonic interviews – Data is collected through an interview over the telephone with the interviewer.
      Questionnaire – A list of questions with space for answers.
6. Pilot Survey – Try-out of the questionnaire on a small group to find its short comings.
7. Qualities of a good questionnaire :
   a) A covering letter with objectives and scope of survey.
   b) Minimum number of questions.
   c) Avoid personal questions.
   d) Question should be clear and simple.
   e) Questions should be logically arranged.

8. Difference between census method and sampling method.

Census Method	Sampling Method
1. Every unit of population studied	1. Few units of population are studied
2. Reliable and accurate results	2. Less Reliable and accurate results
3. Expensive method	3. Less expensive method
4. Suitable when population is of homogenous nature	4. Suitable when population is of heterogeneous nature

9. **Personal Interview Method :**

Advantages	Disadvantages
1. Highest response rate	
2. Allows all types of questions	1. Most expensive
3. Allows clearing doubts regarding questions.	2. Informants can be influenced
	3. Takes more time

Mailed Questionnaire Method:

Advantages	Disadvantages
	1. Long response time
	2. Cannot be used by illiterates.
1. Least expensive	3. Doubts cannot be cleared regarding questions
2. Only method to reach remote areas	
3. Informants can be influenced	

Telephonic Interview Method:

Advantages	Disadvantages
1. Relative low cost	1. Limited use
2. Relatively high response rate	2. Reactions cannot be watched
3. Less influences on informants	3. Respondents can be influenced.

- Census Method – Data collected from each and every unit of population.
- Sample Method – Data is collected from few units of the population and result is applied to the whole group.
- Universe or population in statistics – Total items under study.
- Sample is a section of population from which information is to be obtained.

Sources of Secondary Data:

1. Published Source – Government publications, Semi-government publications etc.
2. Unpublished Source – Census of India [They are collected by the organizations for their own record]

    Sampling Methods: 1] Random sampling   2] Non-random sampling

1. Random Sampling – It is a sampling method in which all the items have equal chance of being selected and the individuals who are selected are just like the ones who are not selected.

2. Non-random sampling – It is a sampling method in which all the items do not have an equal chance of being selected and judgment of the investigator plays an important role.
    Types of Statistical errors:
     1]   Sampling errors   2]   Non-sampling errors
     Sampling Error: It is the difference between sample value and actual value of a characteristic of a population.
     Non-sampling errors: Errors that accurate the stage of collecting data.
     Types of non-sampling errors:
     a) Errors of measurement due to incorrect response.
     b) Errors of non-response of some units of the sample selected.
     c) Sampling bias occurs when sample does not include some members of the target population.

    Census of India – It provides complete and continuous demographic record of population. National Sample Survey Organization – It conducts national surveys on socio-economic issues.

    Sarvekshana – Quarterly journal published by NSSO.