

Chapter 2 . Statistical Investigation⁽¹⁾

Meaning : Statistical investigation means of method of studying a problem by collecting numerical figures through Survey .

Planning and Execution stage stages of Statistical investigation:

Statistical investigation consists of two parts. viz - i) Planning a Survey and ii) Executing a Survey .

i) Planning a Survey : The planning stage of a statistical investigation involves the following steps -

- a) Definition of the problem .
- b) Objectives and scope of enquiry .
- c) Sources of information .
- d) Types of enquiry to be conducted .
- e) Statistical units and definitions .
- f) Degree of accuracy .

ii) Executing a Survey :

- a) Selection of staff and provide them adequate training .
- b) Collection of data .
- c) Editing of data .
- d) Classification and tabulation of data .
- e) Analysis of data .

- f) Interpretation of data and
g) Writing a report.

Primary data: The data which are collected from its source of origin for the first time and have never been used earlier for any purpose are called primary data.

Secondary data: The data which are ^{previously} collected by any individual or agency as primary data for certain purpose and reuse it by any other person or agency is called secondary data.

Methods of collection of Primary data:

Following are the various methods of collecting Primary data -

- i) Direct personal investigation
- ii) Indirect personal investigation
- iii) Schedule and questionnaires
- iv) Through reports.

Difference between schedule and questionnaire:

- i) Schedule may be used in case of illiterate persons but questionnaire is used only for literate persons.
- ii) In case of schedule, the data are entered by the enumerator, but in case of questionnaire the data are entered by the particular person.

- iii) In case of ⁽³⁾ schedule, the particular person (respondents) get mental pressure to give the answers immediately, but in case of questionnaire there is no any mental pressure to give the answer immediately.
- iv) In case of schedule the expenditure is more but in case of questionnaire the expenditure is less.
- v) In case of schedule, more human power is needed but in case of questionnaire less no. of human power is needed.

Requisites of a good questionnaire

While preparing a questionnaire the following points should be taken care of -

- i) Questions should be in simple manner.
- ii) Questions should be short as far as possible.
- iii) Questions should be free from ambiguity.
- iv) Questions should be framed in such a manner that the answers can be given in ~~either~~ either yes or NO.
- v) Questions should be arranged systematically.
- vi) Questions should be relevant of the purpose of the survey.

Methods of collection of secondary data:

Some important sources of secondary data are —

- i) Publications of Central and State Government and international bodies like UNO, ILO, UNESCO, UNICEF, WHO, etc..
- ii) Publication of various chambers of Commerce, Trade association etc.
- iii) Data published by Technical journals
- iv) Data published by Research investigators.

Precautions to be taken while collecting secondary data:

- i) The nature and scope of present enquiry and the original enquiry should be compared before using secondary data.
- ii) The geographical coverage of the original data and the coverage of the present enquiry must be compared before using secondary data.

Advantage of secondary data:

- i) Secondary data can be used with much less cost.
- ii) Secondary data can be collected easily than that of Primary data.
- iii) When a large no. of related items are needed then secondary data is useful than that of Primary data.