DATA COLLECTION *A process of gathering information from all the relevant sources*

✶ Introduction :

To analyze and make decisions about a certain business, sales, etc., data will be collected. This collected data will help in making some conclusions about the performance of particular business. Thus, data collections is essential to analyze the performance of a business unit, solving a problem and making assumptions about specific things when required.

✶ Meaning :

In Statistics, data collection is a process of gathering information from all the relevant sources to find a solution to the research problem. It helps to evaluate the outcome of the problem.

The data collection methods allow a person to conclude an answer to the relevant question. Most of the organizations use data collection methods to make assumptions about future probabilities and trends. Once the data is collected, it is necessary to undergo the data organization process.

The data collection method is divided into two categories namely:

- Primary Data
- Secondary Data

1. Primary Data Collection Method:

Primary data or raw data is a type of information that is obtained directly from the first-hand source through experiments, surveys or observations. The primary data collection method is further classified into two types. They are:

- Quantitative Data
- Qualitative Data

2. Secondary Data Collection Methods:

Secondary data is data collected by someone other than the actual user. It means that the information is already avaliable, and someone analyses it. The secondary data includes magazines, newspapers, books, etc. It may be either published data or unpublished data.

☆ Primary Data:

There are two types / Methods of primary data collection:

1. <u>Quantitative Data Collection Methods :</u>

It is based on mathematical calculations using various formulas like close-ended questions, correlation and regression methods, means, median or mode measures. This method is cheaper than qualitative data collection methods and it can be applied in a short duration of time.

2. <u>Qualitative Data collection Methods :</u>

It does not involve any mathematical calculations. This method is closely associated with elements that are not quantifiable. The qualitative data collection method includes interviews, questionnaires, Observations, case studies, etc.

There are several methods to collect this type of data. They are :

- <u>Interview Method :</u> The method of collecting data in terms of oral or verbal responses. It is achieved in two ways, such as

→ <u>Personal Interview :</u> In this method, a person known as an interviewer is required to ask questions face to face to the other person. The personal interview can be structured or unstructured, direct investigation, focused conversation, etc.

→ <u>Telephonic Interview :</u> In this method, an interviewer obtains information by contacting people on the telephone to ask the questions or views orally.

- **Questionnaire Method:** In this method, the set of questions are mailed to the respondent. They should read, reply and subsequently return the questionnaire. The questions are printed in the definite order on the form. A good survey should have the following features :

→ Short and simple
→ Should follow a logical sequence
→ Provide adequate space for answers
→ Avoid technical terms
→ Should have good physical appearance such as colour, quality of the paper to attract the attention of the respondent.

- **Observation Method:** Observation method is used when the study relates to behavioural science. This method is planned systematically. It is subject to many controls and checks. The different types of observations are:

→ Structured and Unstructured observation
→ Controlled and Uncontrolled observation
→ Participant, non-participant and disguised observation

* **Secondary Data:**
When the data are collected by someone else for a purpose other than the researcher's current project and has already undergone the statistical analysis is called as Secondary data.

The Secondary data are readily available from the other sources and as such, there are no specific collection methods. The researcher can obtain data from the sources both internal and external to the organization.

→ The internal sources of secondary data are:

- Sales report
- Financial statements
- Customer details, like name, age, contact details, etc
- Company information
- Reports and feedback from a dealer, retailor, and distribution.
- Management information system.

⇒ There are several external system & sources from where secondary data can be collected:

- Government censuses, like the population census, agriculture census, etc.

- Information from other government departments, like social security, tax records, etc.

- Business journals

- Social books, Liabraries

- Internet, where wide knowledge about different areas is easily avaliable.