**Concept:**

# DATA COLLECTION

* *It is the process by which the researcher collects the information needed to answer the research problem*
* *The task of data collection begins after a research problem has been defined and research design/ plan chalked out.*
* *In collecting data the researcher must decide?*
* *Which data to collect?*
* *How to collect the Data?*
* *Who will collect the Data?*
* *When to collect the Data?*

# METHODS OF DATA COLLECTION

* *While deciding about the method of data collection to be used for the study, the researcher should keep in mind* ***two types of data*** *viz., primary and secondary.*
* ***Primary Data***

*Primary data are those which are collected for the first time and are original in character.*

## Secondary Data

*Secondary data are those which have already been collected by someone else and which have through some statistical analysis.*

# ADVANTAGES AND DISADVANTAGES OF PRIMARY DATA

Advantages of Using Primary Data

* The investigator collects data specific to the problem under study.
* There is no doubt about the quality of the data collected (for the investigator).
* If required, it may be possible to obtain additional data during the study period.

Disadvantages of Using Primary Data

* The investigator has to contend with all the hassles of data collection- deciding why, what, how, when to collect; getting the data collected (personally or through others); getting funding and dealing with funding agencies; ethical considerations (consent, permissions, etc.).
* Ensuring the data collected is of a high standard- all desired data is obtained accurately, and in the format it is required in; there is no fake/ cooked up data; unnecessary/ useless data has not been included.
* Cost of obtaining the data is often the major expense in studies.

# PRIMARY DATA

*TYPES OF PRIMARY DATA COLLECTION*

1. *Observation Method*
2. *Interview Method*
3. *Through Questionnaires*
4. *Through Schedules*

# PRIMARY DATA

*TYPES OF PRIMARY DATA COLLECTION*

1. *Observation Method: Observation method is a method under which data from the field is collected with the help of observation by the observer or by personally going to the field Steps involved are----*

***Determine what needs to be observed***

***Select participants***

Random/Selected

***Conduct the observation***

(venue, duration, recording materials, take photographs )

***Compile data collected Analyze and interpret data collected***

# PRIMARY DATA

TYPES OF PRIMARY DATA COLLECTION

1. *Interview Method: The interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. This method can be used through* ***personal interviews*** *and, if possible, through* ***telephone interviews*** *and* ***online interviews.***

***Personal Interviews:*** *Personal interview method requires a person known as the interviewer asking questions generally in a face-to-face contact to the other person or persons. (At times the interviewee may also ask certain questions and the interviewer responds to these, but usually the interviewer initiates the interview and collects the information.)*

* 1. ***Structured Interviews****: Such interviews involve the use of a set of predetermined questions and of highly standardised techniques of recording. A rigid procedure is laid down, asking questions in a form and order prescribed.*
  2. ***Unstructured Interviews****: Characterised by a flexibility of approach to questioning and do not follow a system of pre-determined questions and standardised techniques of*

*recording information*

* 1. ***Semi structured Interviews:*** *It does maintain some structure (hence the name semi structured), but it also provides the researcher with the ability to probe the participant for additional details*.

# PRIMARY DATA

*TYPES OF PRIMARY DATA COLLECTION*

1. *Questionnaires Method: In this method a questionnaire is sent (usually by post) to the persons concerned with a request to answer the questions and return the questionnaire. A questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms.*

* ***Open-ended questions***

This gives the respondents the ability to respond in their own words.

### Close-ended or fixed alternative questions

This allows the respondents to choose one of the given alternatives.

Types:- Dichotomous questions and Multiple Questions.

# PRIMARY DATA

*PRECAUTIONS WHILE PREPARING QUESTIONNAIRE*

1. *Questionnaires Method:*

*Researcher should note the following with regard to these three main aspects of a questionnaire:*

1. ***General form:*** *So far as the general form of a questionnaire is concerned, it can either be* ***structured*** *or* ***unstructured questionnaire****.*
   1. ***Structured questionnaires*** *are those questionnaires in which there are definite, concrete and pre-determined questions.*
   2. *In an* ***unstructured questionnaire****, the interviewer is provided with a general guide on the type of information to be obtained, but the exact question formulation is largely his own responsibility and the replies are to be taken down in the respondent’s own words to the extent possible; in some situations tape recorders may be used to achieve this goal.*
2. ***Question sequence:*** *In order to make the questionnaire effective and to ensure quality to the replies received, a researcher should pay attention to the question-sequence in preparing the questionnaire. A proper sequence of questions reduces considerably the chances of individual questions being misunderstood.*
3. ***Question formulation and wording****: In general, all questions should meet the following standards—(a) should be easily understood; (b) should be simple i.e., should convey only one thought at a time; (c) should be concrete and should conform as much as possible to the respondent’s way of thinking.*

# PRIMARY DATA

*TYPES OF PRIMARY DATA COLLECTION*

1. ***Schedules:*** *Very similar to Questionnaire method*

* *The main difference is that a schedule is filled by the enumerator who is specially appointed for the purpose.*
* *Enumerator goes to the respondents, asks them the questions from the Questionnaire in the order listed, and records the responses in the space provided.*
* *Enumerator must be trained in administering the schedule.*

***DIFFERENCE BETWEEN QUESTIONNAIRE AND SCHEDULE***

1. *The questionnaire is generally sent through mail to informants to be answered as specified in a covering letter, but otherwise without further assistance from the sender. The schedule Methods of Data Collection is generally filled out by the research worker or the enumerator, who can interpret questions when necessary.*
2. *To collect data through questionnaire is relatively cheap and economical since we have to spend money only in preparing the questionnaire and in mailing the same to respondents. Here no field staff required. To collect data through schedules is relatively more expensive since considerable amount of money has to be spent in appointing enumerators and in importing training to them..*
3. *Non-response is usually high in case of questionnaire as many people do not respond and many return the questionnaire without answering all questions. Bias due to non-response often remains indeterminate. As against this, non-response is generally very low in case of schedules because these are filled by enumerators who are able to get answers to all questions. But there remains the danger of interviewer bias and cheating.*
4. *In case of questionnaire, it is not always clear as to who replies, but in case of schedule the identity of respondent is known.*

### DIFFERENCE BETWEEN QUESTIONNAIRE AND SCHEDULE

1. *The questionnaire method is likely to be very slow since many respondents do not return the questionnaire in time despite several reminders, but in case of schedules the information is collected well in time as they are filled in by enumerators.*
2. *Personal contact is generally not possible in case of the questionnaire method as questionnaires are sent to respondents by post who also in turn return the same by post. But in case of schedules direct personal contact is established with respondents.*

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1. *Questionnaire method can be used only when respondents are literate and cooperative, but in case of schedules the information can be gathered even when the respondents happen to be illiterate.*
2. *Wider and more representative distribution of sample is possible under the questionnaire method, but in respect of schedules there usually remains the difficulty in sending enumerators over a relatively wider area.*

***DIFFERENCE BETWEEN QUESTIONNAIRE AND SCHEDULE***

1. *Risk of collecting incomplete and wrong information is relatively more under the questionnaire method, particularly when people are unable to understand questions properly. But in case of schedules, the information collected is generally complete and accurate as enumerators can remove the difficulties, if any, faced by respondents in correctly understanding the questions. As a result, the information collected through schedules is relatively more accurate than that obtained through questionnaires.*
2. *The success of questionnaire method lies more on the quality of the questionnaire itself, but*

in the case of schedules much depends upon the honesty and competence of enumerators.

1. *In order to attract the attention of respondents, the physical appearance of questionnaire must be quite attractive, but this may not be so in case of schedules as they are to be filled in by enumerators and not by respondents.*
2. *Along with schedules, observation method can also be used but such a thing is not possible while collecting data through questionnaires.*

# SECONDARY DATA

* + *Secondary data may either be published data or unpublished data.*
  + ***Usually published data are available in****:*

1. *Various publications of the central, state are local governments;*
2. *Various publications of foreign governments or of international bodies and their subsidiary organisations;*
3. *Technical and trade journals;*
4. *Books, magazines and newspapers;*
5. *Reports and publications of various associations connected with business and industry, banks, stock exchanges, etc.;*
6. *Reports prepared by research scholars, universities, economists, etc. In different fields;*
7. *Public records and statistics, historical documents, and other sources of published information.*

### The sources of unpublished data are

They may be found in diaries, letters, unpublished biographies and autobiographies and also may be available with scholars and research workers, trade associations, labour

bureaus and other public/ private individuals and organisations.

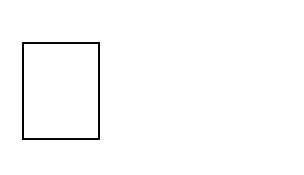
# CHARACTERISTICS OF SECONDARY DATA

* 1. ***Reliability of data:*** *The reliability can be tested by finding out such things about the said data: (a) Who collected the data? (b) What were the sources of data? (c) Were they collected by using proper methods (d) At what time were they collected?(e) Was there any bias of the compiler? (f) What level of accuracy was desired? Was it achieved ?*
  2. ***Suitability of data:*** *The data that are suitable for one enquiry may not necessarily be found suitable in another enquiry. Hence, if the available data are found to be unsuitable, they should not be used by the researcher. In this context, the researcher must very carefully scrutinise the definition of various terms and units of collection used at the time of collecting the data from the primary source originally. Similarly, the object, scope and nature of the original enquiry must also be studied. If the researcher finds differences in these, the data will remain unsuitable for the present enquiry and should not be used.*

**3 . Adequacy of data:** If the level of accuracy achieved in data is found inadequate for the purpose of the present enquiry, they will be considered as inadequate and should not be used by the researcher. The data will also be considered inadequate, if they are related to an area which may be either narrower or wider than the area of the present enquiry.

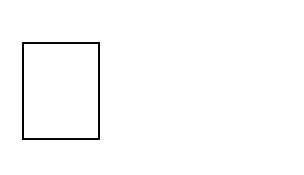
# SELECTION OF APPROPRIATE METHOD FOR DATA COLLECTION

1. ***Nature, scope and object of enquiry:*** *This constitutes the most important factor affecting the choice of a particular method. The method selected should be such that it suits the type of enquiry that is to be conducted by the researcher. This factor is also important in deciding whether the data already available (secondary data) are to be used or the data not yet available (primary data) are to be collected.*
2. ***Availability of funds:*** *Availability of funds for the research project determines to a large extent the method to be used for the collection of data. When funds at the disposal of the researcher are very limited, he will have to select a comparatively cheaper method which may not be as efficient and effective as some other costly method. Finance, in fact, is a big constraint in practice and the researcher has to act within this limitation.*
3. ***Time factor:*** *Availability of time has also to be taken into account in deciding a particular method of data collection. Some methods take relatively more time, whereas with others the data can be collected in a comparatively shorter duration. The time at the disposal of the researcher, thus, affects the selection of the method by which the data are to be collected.*
4. ***Precision required:*** *Precision required is yet another important factor to be considered at the time of selecting the method of collection of data.*

**Short Answer Questions**

**EXERCISE**

* 1. What is Primary Data?
  2. What is Secondary Data?
  3. Differentiate between questionnaire and scheduling?

**Long Answer Questions**

1. Explain the various sources of collecting primary data?
2. Differentiate between Primary Data and Secondary Data?

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