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**Data Collection Methods (1)**

The task of data collection begins after a research problem has been defined and research design/

plan chalked out. 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. The *primary data* are those which are collected afresh and for the first time, and thus happen to be original in character. The *secondary data,* on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process. The researcher would have to decide which sort of data he would be using (thus collecting) for his study and accordingly he will have to select one or the other method of data collection. The methods of collecting primary and secondary data differ since primary data are to be originally collected, while in case of secondary data the nature of data collection work is merely that of compilation.

1. **Collection of Primary Data:**

We collect primary data during the course of doing experiments in an experimental research. However; in case we do research of the descriptive type and perform surveys, we can obtain primary data either through observation or through direct communication with respondents in one form or another or through personal interviews..Accordingly, it is stated that:

An experiment refers to an investigation in which a factor or variable under test is isolated and its effect(s) measured. In an experiment the investigator measures the effects of an experiment which he conducts intentionally. Survey refers to the method of securing information concerning a phenomena under study from all or a selected number of respondents of the concerned universe. In a survey, the investigator examines those phenomena which exist in the universe independent of his action. The difference between an experiment and a survey can be depicted as under: that there are several methods of collecting primary data, particularly in surveys and descriptive researches. Important ones are: (i) observation method, (ii) interview method, (iii) through questionnaires,(iv) through schedules, and (v) other methods which include (a) warranty cards; (b) distributor audits; (c) pantry audits; (d) consumer panels; (e) using mechanical devices; (f) through projective techniques; (g) depth interviews, and (h) content analysis. We briefly take up each method separately.

* 1. **Observation:**

The observation method is the most commonly used method specially in studies related to behavioural sciences. In a way we all observe things around us, but this sort of observation is not scientific observation. Observation becomes a scientific tool and the method of data collection for the researcher, when it serves a formulated research purpose, is systematically planned and recorded and is subjected to checks and controls on validity and reliability. Under the observation method, the information is sought by way of investigator’s own direct observation without asking from the respondent. For instance, in a study relating to consumer behaviour, the investigator instead of asking the brand of wrist watch used by the respondent, may himself look at the watch. The main advantage of this method is that subjective bias is eliminated, if observation is done accurately. Secondly, the information obtained under this method relates to what is currently happening; it is not complicated by either the past behaviour or future intentions or attitudes. Thirdly, this method is independent of respondents’ willingness to respond and as such is relatively less demanding of active cooperation on the part of respondents as happens to be the case in the interview or the questionnaire method.

While using this method, the researcher should keep in mind things like: What should be observed? How the observations should be recorded? Or how the accuracy of observation can be ensured? In case the observation is characterised by a careful definition of the units to be observed, the style of recording the observed information, standardised conditions of observation and the selection of pertinent

data of observation, then the observation is called as *structured observation.* But when observation is to take place without these characteristics to be thought of in advance, the same is termed *as* *unstructured observation.* Structured observation is considered appropriate in descriptive studies, whereas in an exploratory study the observational procedure is most likely to be relatively unstructured.

Sometimes we talk of *controlled* and *uncontrolled observation.* If the observation takes place

in the natural setting, it may be termed as uncontrolled observation, but when observation takes place according to definite pre-arranged plans, involving experimental procedure, the same is then termed

controlled observation. In non-controlled observation, no attempt is made to use precision instruments.

The major aim of this type of observation is to get a spontaneous picture of life and persons. It has a

tendency to supply naturalness and completeness of behaviour, allowing sufficient time for observing

it. But in controlled observation, we use mechanical (or precision) instruments as aids to accuracy

and standardisation. Such observation has a tendency to supply formalised data upon which generalisations can be built with some degree of assurance. The main pitfall of non-controlled observation is that of subjective interpretation. There is also the danger of having the feeling that we know more about the observed phenomena than we actually do. Generally, controlled observation takes place in various experiments that are carried out in a laboratory or under controlled conditions, whereas uncontrolled observation is resorted to in case of exploratory researches.

However, observation method has various limitations. Firstly, it is an expensive method. Secondly, the information provided by this method is very limited. Thirdly, sometimes unforeseen factors may interfere with the observational task. At times, the fact that some people are rarely accessible to direct observation creates obstacle for this method to collect data effectively.

* 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.

**1.2.a. Personal Interview**:

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. More importantly, the interviewee may also ask certain questions and the interviewer responds to these, but the interviewer usually initiates the interview and collects the information. The interviewer has to collect the information personally from the sources concerned. He has to be on the spot and has to meet people from whom data have to be collected. This method is particularly suitable for intensive investigations.

The method of collecting information through personal interviews is usually carried out in a structured way. As such we call the interviews as *structured interviews.* Such interviews involve the use of a set of predetermined questions and of highly standardised techniques of recording. Thus, the interviewer in a structured interview follows a rigid procedure laid down, asking questions in a form and order prescribed. As against it, the *unstructured interviews* are characterised by a flexibility of approach to questioning. Unstructured interviews do not follow a system of pre-determined questions and standardised techniques of recording information. In a non-structured interview, the interviewer is allowed much greater freedom to ask, in case of need, supplementary questions or at times he may omit certain questions if the situation so requires. He may even change the sequence of questions. He has relatively greater freedom while recording the responses to include some aspects and exclude others. But this sort of flexibility results in lack of comparability of one interview with another and the analysis of unstructured responses becomes much more difficult and time-consuming than that of the structured responses obtained in case of structured interviews. Unstructured interview also demands deep knowledge and greater skill on the part of the interviewer. It, however, happens to be the central technique of collecting information in case of exploratory or formulative research studies. But in case of descriptive studies, we quite often use the technique of structured interview because of its being more economical, providing a safe basis for generalization and requiring relatively lesser skill on the part of the interviewer.

* 1. **b. Telephone interviews:**

This method of collecting information consists in contacting respondents on telephone itself. It is not a very widely used method, but plays important part in industrial surveys, particularly in developed regions.

In fact, interviewing is an art governed by certain scientific principles. Every effort should be made to create friendly atmosphere of trust and confidence, so that respondents may feel at ease while talking to and discussing with the interviewer. The interviewer must ask questions properly and intelligently and must record the responses accurately and completely. At the same time, the interviewer must answer legitimate question(s), if any, asked by the respondent and must clear any doubt that the

latter has. The interviewers approach must be friendly, courteous, conversational and unbiased. The interviewer should not show surprise or disapproval of a respondent’s answer but he must keep the

direction of interview in his own hand, discouraging irrelevant conversation and must make all possible

effort to keep the respondent on the track