# Module 3 Part 2 Data Collection Methods - Observation

| Si.no | Title of the topic              | Page No |
|-------|---------------------------------|---------|
| 3.2.1 | Observation study               | 2       |
| 3.2.2 | Conducting an Observation Study | 3       |
| 3.2.3 | Types of Observation            | 4-7     |
| 3.2.4 | Advantages of Observation       | 8       |
| 3.2.5 | Disadvantages of Observation    | 9       |
|       |                                 |         |

#### 3.2.1 Observation study

Observation is a popular method of data collection in behavioural sciences. The power of observation has been summed by W.L. Prosser as followers, "there is still no man that would not accept dog tracks in the mud against the sworn testimony of a hundred eye witnesses that no dog had passed by." **Observation refers to the monitoring and recording of behavioural and non behavioural activities and conditions in a systematic manner to obtain information about the phenomena of interest.** 

'Behavioural observation' is:

- a) Non verbal analysis like body movement, eye movement.
- b) Linguistic analysis which includes observing sounds like ohs! and ahs!
- c) Extra linguistic analysis which observes the pitch, timbre, rate of speaking etc.
- d) Spatial analysis about how people relate to each other.

The non behavioural observation is an analysis of records e.g. newspaper archives, physical condition analysis such as checking the quality of grains in gunny bags and process analysis which includes observing any process.

# 3.2.2 Conducting an Observation Study

While conducting an observation study, care should be taken that it is free from errors and bias. The following basic steps can be followed. What are they?

a) **Specify the type of study**. If the study is exploratory in nature then even simple observation will suffice. In other studies the observation is more systematic.

Depending on the environment of study, the observation could be unstructured or it could be structured.

- b) **Specify the contents of observation**. The researcher should specify the variables of interest which are to be observed along with other variables which influence the study. For each variable identified, its definition and the measurement terms to be used to record the results should be specified.
- c) **Observer training**. An observer has to be trained to record and observe the right things. He should have the ability to remember details, to objectively view the phenomena of interest and have high concentration power. The more unstructured observation, the greater the dependency on observer for securing the research results. Hence an observer's experience in such a situation becomes necessary.

### d) Develop an observation form.

What is an observation form? and How to develop?

The observation form is an observation plan which addresses the following :

- ♣ Who ? i.e the subjects, the intermediaries who are to be studied and who help in studying respectively.
- ♣ What? i.e the aspects which are to be observed. The characteristics that are to be observed need to be specified.
- ♣ When? i.e the time of observation. It has to be decided whether the observation is to be conducted at a particular time or any time is the right time.
- ♣ Where? i.e. The place where the observation is to be made. The methodology used to select the place where observation is to be done is also to be specified.

→ How i.e. the method of observation. The details regarding how the data will be observed i.e. directly or indirectly, by single or multiple observers, through personal or mechanical method, all should be stated.

Once plan is drafted the observer is ready to monitor and record the phenomena of interest.

Observation can be classified into various categories.

#### 3.2.3 Types of Observation

#### (a) Structured Vs. Unstructured Observation.

In structured observation the problem has been clearly defined, hence the behaviour to be observed and the method by which it will be measured is specified beforehand in detail. This reduces the chances of observer introducing observer's bias in research e.g. study of plant safety compliance can be observed in a structured manner.

Unstructured analysis is used in situations where the problem has not been clearly defined hence it cannot be pre specified that what is to be observed. Hence a researcher monitors all relevant phenomena and a great deal of flexibility is allowed in terms of what they note and record. E.g. the students behaviour in a class would require monitoring their total behavior in the class environment. The data collected through unstructured analysis should be analysed carefully so that no bias is introduced.

(b) **Disguised Vs. Undisguised Observation**. This classification has been done on the basis of **whether the subjects should know that they are being observed or not.** In disguised observation, the subjects are unaware of the fact that they are being observed. Their behavior is observed using hidden cameras, one way mirrors, or other devices. Since the subjects are unaware that they are being

observed hence they behave in a natural way. The drawback is that it may take long hours of observation before the subjects display the phenomena of interest. Disguised observation may be:

- Direct observation when the behavior is observed by the researcher himself personally.
- Indirect observation which is the effect or the result of the behavior that is observed.

In **undisguised observation**, the subjects are aware that they are being observed. In this type of observation, there is the fear that the subjects might show a typical activity. The entry of observer may upset the subject, but for how long this disruption will exist cannot be said conclusively, Studies have shown that such descriptions are short-lived and the subjects soon resume normal behaviour.

- (c) **Participant Vs. Non Participant Observation**. If the observer participants in the situation while observing it is termed as participant observation e.g. a researcher studying the life style of slum dwellers, following participant observation, will himself stay in slums. His role as an observer may be concealed or revealed. By becoming a part of the setting he is able to observe in an insightful manner. A problem that arises out of this method is that the observer may become sympathetic to the subjects and would have problem in viewing his research objectively.
  - In case of non-participant observation, the observer remains outside the setting and does not involve himself or participate in the situation.
- (d) **Natural Vs. Contrived Observation**. In natural observation the behavior is observed as it takes place in the actual setting e.g. the consumer preferences observed directly at Pizza Hut where consumers are ordering pizza. The advantage

of this method is that the true results are obtained, but it is expensive and time consuming method.

In contrived observation, the phenomena is observed in an artificial or simulated setting e.g. the consumers instead of being observed in a restaurant are made to order in a setting the looks like a restaurant but is not an actual one. This type of observation has the advantage of being over in a short time and recording of behavior is easily done. However, since the consumers are conscious of their setting they may not show actual behavior.

## (e) Classification on the Basis of Mode of Administration. This includes:

- (i) **Personal Observation**. In this type of observation the observer himself monitors and records the behavior as it occurs. The recording is done on an observation schedule. The personal observation not only records what has been specified but also identifies and records unexpected behaviours that defy pre-established response categories.
- (ii) **Mechanical Observation**. Mechanical devices, instead of humans are used to record the behavior. These devices record the behavior as it occurs and data is sorted and analyzed later on, Apart from cameras, other devices are galvanometer which measured the emotional arousal induced by an exposure to a specific stimuli, audiometer and people meter that record which channel on TV is being viewed with the latter also recording who is viewing the channel. etc.
- (iii) **Audit**. It is the process of obtaining information by physical examination of data. The audit, which is a count of physical objects is generally done by the researcher himself. An audit can be a store audit or a pantry audit.

Survey of consumer goods that homes have at a given time. A pantry audit may be conducted over the telephone or using a questionnaire and is intended to inform producers and retailers of what they should make or stock. The store audits are performed by the distributors or manufacturers in order to analyze the market size, market share, purchase pattern, etc. e.g. the researcher may check the store records or do an analysis of inventory on hand to record the data. The pantry audit involves the researcher developing an inventory of brands, quantities and packages sizes of products in a consumer's home generally in the course of a personal interview. Such an audit is used to supplement or test the truthfulness of information provided in the direct questionnaire.

(iv) Content Analysis. Content analysis is the objective, systematic and quantitative description of the manifest content of communication. This method consists of observations and analysis. It involves analysis of the contents of a communication spoken or printed. Through content analysis a quantitative analysis of the presence of certain characteristic in a document can be done by identifying and counting the presence of a certain characteristic e.g. if we want to find out which politicians frequently use secularism in their speech, then certain key words which are synonymous with secularism are identified. Next the speech of various politician whose speech has the maximum number of key words appearing in its content is the one who uses secularism frequently to woo voters ( create spirit among voters). However these days content analysis is used for qualitative analysis whereby the general message of the document is analysed.

#### 3.2.4 Advantages of Observation

- 1. This is the only method that allows for collection of data in natural settings.
- 2. Through observation, not only the verbal but the non verbal behavior can also be observed. It allows for in-depth study of the phenomenon.
- 3. In an observation survey there is no time elapse between the occurrence and recording of the behavior. Both these tasks i.e occurrence and recording are done simultaneously.
- 4. Observation is a flexible method of data collection and is especially suitable for studying social processes in depth over an extended period of time.
- 5. The observation method is particularly used in a situation where the respondents are either unwilling or unable to give the information.
- 6. Through observation, the observer is able to record the context which gives a better insight to the respondent's expression.

# 3.2.5 Disadvantages of Observation Method.

- 1. In case of observation, the phenomenon which is to be observed may not occur for a long time or it may occur sporadically. This makes it a very time consuming and expensive method.
- 2. When observation is being done in natural settings the researcher has little control over variables that affect data.
- 3. Analysis of data collected through observation is cumbersome. In case of structured observation an observation checklist is already available hence data

can be easily analyzed but when the observation is unstructured then it is very difficult to quantify the relevant data.

- 4. It has been seen that many a times the observer gets emotionally involved with the subjects. In such a situation the research gets infected by observer's bias.
- 5. The margin for interpretive error is greater in observation than in interview or questionnaire method. The behavior recorded or observed is interpreted different by different people.
- 6. Where disguised observation is used, it raises the question of ethics i.e. is it appropriate to record or observe people without they being aware of it.
- 7. In certain situations it is difficult for an observer to gain entry into the study setting e.g. an organization may not allow an observer to record its worker's Behaviour.
- 8. Observation method cannot be applied in situation where the size of the sample is large.

Despite these limitations we find that observation method is used in research. However the preferred mode is to use it as a supplement to the interview method.

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