

DATA COLLECTION

Types of data- primary Vs Secondary data –
Methods of primary data collection – Survey vs
Observation – Experiments- construction of
questionnaire – Validation of questionnaire-
Sample plan – Sample size – determinants
optimal sample size – Sampling techniques –
probability Vs Non probability sampling methods

TYPES OF DATA

- PRIMARY DATA
- SECONDARY DATA

PRIMARY DATA

- OBSERVATION METHOD
- PERSONAL INTERVIEW
- TELEPHONE INTERVIEW
- MAIL SURVEY
- EXPERIMENTS

OBSERVATION METHODS

- In the observation method, the investigator will collect data through personal observations. The observation method involves human or mechanical observation of what people actually do or what events take place during a buying or consumption situation. “Information is collected by observing process at work.” The following are a few situations:-

- Service Stations-Pose as a customer, go to a service station and observe.
- To evaluate the effectiveness of display of Dunlop Pillow Cushions-In a departmental store, observer notes:- a) How many pass by; b) How many stopped to look at the display; c) How many decide to buy.
- Super Market-Which is the best location in the shelf? Hidden cameras are used.
- To determine typical sales arrangement and find out sales enthusiasm shown by various salesmen-Normally this is done by an investigator using a concealed tape-recorder.

- Consider the case of work sampling in a shop floor to determine the standard time of a job which is manufactured by a set of machines. In such study the investigator observe the state of these machines through random sampling
- Continues monitory of stock exchange index and share price movements through newspaper and magazines is an example of observational method which will help investment companies and individuals effective management of protfolios

Survey method

- With the application of probability sampling in the 1930s, surveys became a standard tool for [empirical research](#) in social sciences, marketing and official statistics.^[1] The methods involved in **survey data collection** are any of a number of ways in which data can be [collected](#) for a [statistical survey](#). These are methods that are used to collect information from a sample of individuals in a systematic way. First there was the change from traditional paper-and-pencil interviewing (PAPI) to computer-assisted interviewing (CAI). Now, face-to-face surveys (CAPI), telephone surveys (CATI), and mail surveys (CASI, CSAQ) are increasingly replaced by web surveys.

Personal interview

- Personal interview
- Door to door interviewing
- Executive interviewing
- Mall intercept interview
- Self administered interview
- Purchase intercept techniques

Telephone interview

- Selection of telephone numbers
- Telephone directory reference
- Random digit dialing- without help of telephone directory
- Systematic random digit dialing-
- Plus one dialing

Mail survey

- Mail survey is a data collection method in which questionnaires are mailed to potential respondents who in turn fill and return them at their convenience.

Task

- Selecting the type of envelope
- Determine the mode of postage
- Designing covering letter
- Deciding questionnaire length, content, layout and format
- Notification and followup details

Secondary data

- Secondary data are collected from sources which have been already created for the purpose of first time use and future use
- Internal source
- External source

Internal Source

- Sales record
- Marketing activities
- Cost Information
- Distributor reports and feedback
- Customer feedback
- With respect to studies in other areas like personnel, finance, production, public systems, etc

External sources

- Government publication
- Foreign government publication
- Journals
- Publications of trade associations,
- Books,
- Magazines,
- Newspapers
- Annual reports
- Research reports in universities
- Industry handbook
- Publication of statistics
- Census data,
- Indian Agricultural statistics
- Reserve Bank of India Bulletin

How to Construct Questionnaires?

- When constructing each question think about the words you use. Avoid jargon and technical terms when ever possible.
- Questions should be kept short and simple. This will avoid many of the problems outlined above. Avoid negative questions
- Make sure that your questions don't contain some type of prestige bias. This phrase referest questions which could embarrass or force respondents into giving a false answer.

USING CLOSED ENDED QUESTIONS

- if you are constructing a closed ended question, try too make sure that all possible answers are covered how often do you?
- Avoiding Leading questions
- Don't ask leading questions. The questions how often do you wash your car? Might seem innocuous enough

Questionnaire construction issues

1. Know how you will use the result of your research before you start. If for example, the result won't influence your decision or you can't afford to implement the finding or the cost of the research outweighs its usefulness, then save your time and money don't bother doing the research

Types of questions

- Contingency questions
- Matrix questions
- Closed ended questions
- Open ended questions

Contingency questions

- If the respondent gives a particular response to a previous question. This avoids asking questions of people that do not apply to them (for example, asking men if they have ever been pregnant)

Matrix questions

- Identical response categories are assigned to multiple questions the questions are placed one under the other, forming a matrix with response categories along the top and a list of questions down the side. This is an efficient use of page space and respondents time.

Closed ended questions

- A) Yes/ No questions
- B) Multiple choice : The respondent has several options from which to choose
- C) Scaled Questions: Responses are graded on a continuum (example of types of scales include the likert Scale, Semantic differential scale, and rank order scale)

Open ended questions

1. **Completely unstructured:** What is your opinion of questionnaires?
2. **Word association :** words are presented and the respondent mentions the first word that comes to mind
3. **Sentence completion:** Respondents complete an incomplete sentence The most important consideration in my decision to buy a new house is

- **Story completion:** Respondents complete an incomplete story
- **Picture completion:** Respondents fill in an empty conversation balloon
- **Thematic Apperception Test :** Respondents explain a picture or make up a story about what they think is happening in the picture

Question sequence

1. Questions should flow logically from one to the next
2. The researcher must ensure that the answer to a question is not influenced by previous questions
3. Questions should flow from the more general to the more specific
4. Questions should flow from the least sensitive to the most sensitive
5. Questions should flow from factual and behavioral questions to attitudinal and opinion questions
6. Questions should flow from unaided to aided questions
7. According to the three stage theory, initial questions should be screening and rapport questions. Then in the second stage you ask all the product specific questions. In the last stage you ask demographic questions

The following points should be kept in mind while drafting a questionnaire

1. The questionnaire should not be lengthy
2. A decent paper and printing is to be chosen
3. The questions asked should be well worded and should not be ambiguous.
4. The questions asked should be in proper sequence
5. Questions should be free from personal bias. These should not injure the feeling or the respondents.
6. Questions should be such that respondent has to do the minimum of writing work