



Methods of Data Collection

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TYPES OF DATA

- PRIMARY DATA
- Are those which are collected a fresh and for the first time and thus happen to be original in character and known as Primary data.
- SECONDARY DATA
- Are those which have been collected by someone else and which have already been passed through the statistical process are known as Secondary data.

COLLECTION OF PRIMARY DATA

- There are several methods of collecting primary data, particularly in surveys and descriptive researches.
- In descriptive research, we obtain primary data either through observation or through direct communication with respondents in one form or another or through personal interviews.

Methods of data Collecting Primary Data

- 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.
- ADVANTAGES
 - Subjective bias eliminated
 - Researcher gets Current information
 - Independent to respondent's variable
- DISADVANTAGES
 - It is expensive method
 - Time consuming
 - Limited information
 - Unforeseen factors may interfere with observational task
 - Respondents opinion can not be recorded on certain subject

TYPES OF OBSERVATION

- **Structured Observation**
 - When observation is done by characterizing style of recording the observed information, standardized conditions of observation , definition of the units to be observed , selection of pertinent data of observation then it is structured observation
- **Unstructured Observation**
 - When observation is done without any thought before observation then it is unstructured observation

TYPES OF OBSERVATION

- Participant & Non Participant Observation
- When the Observer is member of the group which he is observing then it is Participant Observation. In participant observation Researcher can record natural behavior of group , Researcher can verify the truth of statements given by informants in the context of questionnaire , Difficult to collect information can obtain through this method but in this researcher may loose objectivity of research due emotional feelings. Prob. of control in observation isn't solved.
- Non Participant Observation• When observer is observing people without giving any information to them then it is non participant observation

TYPES OF OBSERVATION

- Controlled & Uncontrolled Observation
- When the observation takes place in natural condition i.e. uncontrolled observation. It is done to get spontaneous picture of life and persons
- When observation takes place according to definite pre arranged plans , with experimental procedure then it is controlled observation generally done in laboratory under controlled condition.

INTERVIEW METHOD

- This method of collecting data involves presentation or oral-verbal stimuli and reply in terms of oral-verbal responses.
- Interview Method This is Oral Verbal communication . Where interviewer asks questions(which are aimed to get information required for study) to respondent
- There are different type of interviews:
- **PERSONAL INTERVIEWS** : The interviewer asks questions generally in a face to face contact to the other person or persons.

Types of Personal Interview

- **Structured Interview**
 - Predetermined questions
 - Standardized techniques of recorded
 - Interviewer follows rigid procedure
 - Time required for such interview is less than non structured manner interview
 - Not necessary of skill or specific knowledge
 - Analysis of data becomes easier
- **Unstructured Interview**
 - No Predetermined questions
 - No Standardized techniques
 - Interviewer has freedom to ask, omit, add any questions
 - Ask questions without following sequence
 - Deep knowledge & skill required
 - Analysis of data is difficult prescribed manner

Merits of Personal Interview

- Information at greater depth
- Flexibility of restructuring the Questionnaire
- Interviewer by his skill can overcome resistance
- Non Response generally low
- Samples can be controlled more effectively
- Personal information can be obtained
- Interviewer can collect supplementary information about respondent's personal characteristics and environment which has value in interpreting results

De Merits Of Interview

- Expensive method
- Respondent may give bias information
- Some Executive people are not approachable so data collected may be inadequate
- Takes more time when samples are more
- Systematic errors may be occurred
- Supervisors has to do complex work of selecting ,training and supervising the field staff.

TELEPHONIC INTERVIEWS

- Contacting samples on telephone
- Uncommon method may be used in developed regions

TELEPHONIC INTERVIEWS -MERITS

- Flexible compare to mailing method
- Faster than other methods
- Cheaper than personal interview method
- Call-backs are simple and economical also
- High response than mailing method.
- When it is not possible to contact the respondent directly, then interview is conducted through – Telephone
- Replies can be recorded without embarrassment to respondents
- Interviewer can explain requirements more easily
- No field staff is required
- Wider distribution of sample is possible

TELEPHONIC INTERVIEWS -DEMERITS

- Little time is given to respondents
- Survey is restricted to respondents who have telephones
- Not suitable for intensive survey where comprehensive answers are required
- Bias information may be more
- Very difficult to make questionnaire because it should short and to the point

Other Types

- Focused interviews : attention is focused on the given experience of the respondent and its possible effects.
- Clinical interviews : concerned with broad underlying feelings or motivations or with the course of individual's life experience, rather than with the effects of the specific experience, as in the case of focused interview.
- Group interviews : a group of 6 to 8 individuals is interviewed.
- Qualitative and quantitative interviews : divided on the basis of subject matter i.e. whether qualitative or quantitative.
- Individual interviews : interviewer meets a single person and interviews him.
- Selection interviews : done for the selection of people for certain jobs.
- Depth interviews : it deliberately aims to elicit unconscious as well as other types of material relating especially to personality dynamics and motivations.

QUESTIONNAIRE METHOD

- This method of data collection is quite popular, particularly in case of big enquiries. The questionnaire is mailed to respondents who are expected to read and understand the questions and write down the reply in the space meant for the purpose in the questionnaire itself. The respondents have to answer the questions on their own.
- Questionnaire Method Questionnaire is sent to persons with request to answer the questions and return the questionnaire Questions are printed in definite order , mailed to samples who are expected to read that questions understand the questions and write the answers in provided space .

Merits of Questionnaire

- Low cost even the geographical area is large to cover
- Answers are in respondents word so free from bias
- Adequate time to think for answers
- Non approachable respondents may be conveniently contacted
- Large samples can be used so results are more reliable

Demerits of Questionnaire

- Low rate of return of duly filled questionnaire
- Can be used when respondent is educated and co operative
- It is inflexible
- Omission of some questions
- Difficult to know the expected respondent have filled the form or it is filled by some one else
- Slowest method of data collection

Main aspects of a Questionnaire

1. General Form

- Structured questionnaire – All questions and answers are specified and comments in the respondents own words are held to the minimum.
- Unstructured questionnaire- Interviewer is provided with general guide on the type of information to be collected. He can form his own questions.
- Answers are taken down in respondents own words, at time recorded on tape.

Main aspects of a Questionnaire

2. Question sequence

- Question sequence should be clear and smoothly moving (relation of one question to another should readily apparent)
- First few questions are important for creating interest in respondents mind
- Question which gives stress on memory or of a personal character and wealth should be avoided as opening questions
- Easier question should be at the start of the questionnaire
- General to specific questions should be the sequence of questions

Main aspects of a Questionnaire

3. Question formation and wording

- Question should easily understood Question should be simple and concrete.
- Closed questions are easy to handle but this is like fixing the answers in people's mouth. So depending upon problem for which survey is going on both close ended and open ended question may be asked in Questionnaire.
- Words having ambiguous meaning should be avoided
- Catch words, words with emotional connotations , danger words should be avoided.

Essentials of Good Questionnaire

- Good Questionnaire Should Short & simple Questions
- Should arranged in logical sequence (From Easy to difficult one)
- Technical terms should avoided
- Some control questions which indicate reliability of the respondent (To Know consumption first expenditure and then weight or qty of that material)
- Questions affecting the sentiments of the respondents should avoided
- Adequate space for answers should be provided in questionnaire
- Provision for uncertainty (do not know, No preference)
- Directions regarding the filling of questionnaire should be given
- Physical Appearance - Quality of paper, color

SCHEDULE METHOD

- It is one of the important methods for the study of social problems.
- Schedules Like Questionnaires but it filled by enumerator.
- Enumerators are specially appointed for filling questionnaire
- Enumerators explain the aim and objective to respondent and fill the answers in provided space.
- In the words of Thomas Carson Macormic, “The schedule is nothing more than a list of questions which it seems necessary to test the hypothesis .”

Questionnaire V/S Schedule

- Generally send through mail
 - No further assistance from sender
 - It is a Cheaper method
 - Non response is high
 - It is not always clear who replies
 - Very slow process
 - No Personal Contact
 - Can be used only when respondent is educated and cooperative
 - Wider distribution of sample
 - Success depend on the quality of questionnaire
- Schedule is filled by the enumerator
 - More expensive- Hier and train enumerators
 - Non response is high
 - Identity of the responder is known
 - Information is collected well in time
 - Direct personal contact
 - Info can be collected form illiterates also
 - No wide distribution of sample
 - Success depends on the honesty and competence of questionnaire

Other Methods Of Data Collection

- Warranty Cards - Post card size cards sent to customers and feedback collected through asking questions on that card
- Distributor or Store Audits - Audits are done by distributor or manufacturer's salesperson. Observation or copying information about inventory in retail shops. Useful method for knowing market share, market size, effect of in store promotion.
- Pantry Audits - From the observation of pantry of customer to know purchase habit of the people (which product , of what brand etc.) Questions may be asked at the time of audit
- Consumer Panels - When pantry audit is done at regular basis, Daily record of consumption of certain customers. Or repeatedly interviewed at the specific periods to know their consumption.

Other Methods Of Data Collection

- Transitory consumer panels – for limited time
- Continuing Consumer panel - For indefinite period
- Use of Mechanical Device - Eye Cameras to record eyes focus on certain sketch
- Psycho galvanometer to measure body excitement to visual stimulus
- Motion Picture camera to record movement of body at the time of purchase
- Audiometer concerned to TV. Useful to know Channel, program preference of people

Other Methods Of Data Collection

- Depth Interview - To discover the underlying motives or desires of samples . To explore needs , feelings of respondents. Skill is required , indirect question or projective techniques are used to know behavior of the respondent.
- Content Analysis - Analysing contents of documentary material as news paper, books magazines about certain characteristics to identify and count

Collection of secondary data

- Data that are already available
- Publications of Central, state , local government
- Technical and trade journals
- Books, Magazines, Newspaper
- Reports & publications of industry ,bank, stock exchange
- Reports by research scholars, Universities, economist
- Public Records

Collection of secondary data

- Before using Secondary data researcher must check
 - Reliability of the data
 - Suitability of data
 - Adequacy of data

Selection of appropriate method of data collection

- Nature and scope of the enquiry
- Availability of funds
- Time factor
- Precision required