



CHAPTER – 2

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Collection of

Primary and secondary

data

WHAT A STATISTICAL ENQUIRY

Enquiry mean a search for truth, knowledge or information. Statistical enquiry, therefore, means a search conducted by statistical methods.

Thus, Statistical enquiry means statistical Investigation or statistical survey: one who conduct this type of enquiry called on Investigator. The investigator needs the help of certain persons to collect information, they are known as enumerators and respondents are those from whom the statistical information is collected. Survey is a method of collecting information from individuals.

Sources of Data

There are different sources of collection of data. Before deciding the source to collect the data one has to make a proper planning of Investigation and the purpose of enquiry.

Following are the various sources of collecting

1. Internal: A large number of individual organisations and Government department generate the data as their regular function which is internal information. Internal data may be available in the Organisation about sales, production, salary, wages, profit, dividends etc. Such data are always available in the books of the organisation which are compiled and sent to management for future planning.

2. External: Information collected from agencies is called external data which can be obtained from primary source or secondary source

PRIMARY DATA AND SECONDARY DATA

Primary Data: Primary data is original and first-hand information which can be obtained by direct or indirect interview or telephone

Interviews or by questionnaires and schedules.

Secondary Data: Secondary data is second hand information collected through other sources, like published sources or unpublished source of Government department and companies' records, newspapers, journals etc.

Drafting the questionnaire

Following are the basic principles of drafting questionnaire

1. Covering Letter: - The person conducting the survey must introduce himself and make the aim and objectives of the enquiry clear to the informant.

A personal letter can be enclosed indicating the purpose and aim of enquiry. The informant should be taken into consideration. He should be assured that answer will be kept confidential.

2. Number of questions: - The number of question in a questionnaire should be limited as possible. Question should be related to the Purpose of enquiry. Irrelevant questions should be eliminated. The questionnaire should not be too long to enable the respondent to answer quickly, correctly and clearly.

3. Personal question should be avoided: - Questions affecting the sentiments of informant should not be asked.

4. The questions should be simple and clear: - The Language of the question should be easy to understand. It should be simple and clear. It should not be ambiguous.

5. The questions should be arranged logically: - There should be a proper sequence of the questions.

6. Instruction to information: - A questionnaire must show clear instructions for filling in the form.

7. The questions may be divided and subdivided under different head and subheads and should be properly numbered for the convenience of the informant and investigator.

8. Multiple choice questions: - Question should be capable of objective answers for this the informant should be able to give the answers simply by using a tick mark in the blank space.

9. Simple alternative questions: As far as possible questions should be framed in such a way that they are answerable in 'Yes' or 'No' or Right or Wrong.

10. Specific information question: -The questionnaire starts from general questions to more specific ones. These questions are simple and direct

11. The questions should be directly related to the point under enquiry for which data & being collected.

12. Attractive layout: The questionnaire should be made to look attractive as possible. Sufficient space should be provided to answer to the questions of schedule.

13. Avoidance of questions of Calculation: - As far as possible no question should be asked which requires mathematical calculations. It gives strain to the informant and he may avoid sending the questionnaire back.

14. Cross Check: - Such question may be asked as help cross check.

15. Pre-testing of questionnaire: Before taking enquiry on a large scale the questionnaire should be pretested with a small number of a group of persons.

METHOD OF COLLECTING PRIMARY DATA

1. Direct Personal Interview

According to this method, data are collected by the investigator, personally from persons who are subject to enquiry. He interviews personally to everyone who is in position to supply information he requires. We can use this method of collection of data when area of enquiry is limited or when maximum degree of accuracy is needed.

Merits

- 1. Data have a high degree of originality.**
- 2. Data are accurate when personally collected.**
- 3. The required information can be properly obtained.**
- 4. There is a fair degree of uniformity in the data collected by the investigator himself from the informants. It facilitates comparison.**
- 5. Because the information is collected by the investigator himself, reliability of the data is not doubted.**

Demerits/Limitation

- 1. This method can be used if the field of enquiry is small.**

2. It is costly method and consume more time.

3. Personal bias can give wrong results.

4. This method is Lengthy and complex.

2. Indirect Personal Interview

Indirect personal interview is the method by which information is obtained not from the persons regarding whom the information is needed. It is collected orally from other persons who are expected to possess the necessary information.

Merits

1. This method can be applied even when the field of investigation is very wide

2. This is relatively less expensive method as compared to Direct Personal investigation.

3. This method is relatively free from the bias of the investigator.

4. This is relatively simple approach of data collection.

Limitations

1. The data collected by this method is relatively less accurate. This is because the information is obtained from persons other than the concerned informants.

2. There is a possibility of personal bias of the person giving the information.

3. This method may lead to doubtful conclusion due to carelessness of

the witnesses.

3. Telephone Interview

The investigator asks questions over Landline telephone, mobile telephone and even through website. Various researchers, newspapers, television, channels, mobile service providers, banks etc. use telephonic service to get information from different Peoples. These days online survey through SMS has become popular.

Merits

- 1. Telephone Interviews are cheaper than personal interviews.**
- 2. It can be conducted in short period of time.**
- 3. The investigator can assist the respondent by clarifying the questions.**

Limitations

- 1. Information cannot be obtained from people who do not have their own telephones.**
- 2. Reactions of respondent on certain issues cannot be judged.**

4. Information from Correspondent or local sources

Under this method, the investigator appoints local persons or correspondent at different places. They collect information in their own way and furnish the information to the investigator.

Merits

- 1. This method is comparatively cheap**
- 2. It can cover wide area under investigation.**
- 3. The correspondent keeps on supplying almost regular information.**

Demerits/limitations

- 1. In this original data is not obtained because of lack of personal contact with the respondent.**
- 2. There is lack of uniformity of data. This is because data is collected by a number of respondent.**
- 3. This method suffers from personal bias of the correspondent**
- 4. The data collected by this method are not very accurate.**

5. Mailed Questionnaires

A list of questions relating to the inquiry, which is called schedule or questionnaire is prepared. This list of questions provides a space for each answer. Schedules are sent to informants by posts, with a request to answer and return it within a specified time.

Merits

- 1. This method is not an expensive method.**
- 2. We can obtain original data by this method.**

3. This method allows wide coverage area to study.

4. It is free from bias of the investigator as the information is given by the informants themselves.

Demerits

1. Generally, the informants do not take interest in questionnaires. Those who return, often send incomplete answers.

2. There may be delays in getting replies to the questionnaires.

3. This method can be used only when the informants are educated or literate.

6. Questionnaire filled by enumerators

Under this method, a questionnaire is prepared according to the purpose of enquiry. The enumerator himself approaches the informant with the questionnaire. The questionnaires which are filled by the enumerators themselves by putting questions.

Merits

1. It can cover a wide area

2. The result is not affected by bias

3. As the information is collected by trained and experienced enumerator, it is reasonably accurate and reliable.

4. This method can be adopted in those cases also where the informant are illiterate.

Demerits

1. It is an expensive method.

2. This method is time consuming.

3. Enumeration need to be trained, without proper training most of the collected information is vague and may lead to wrong conclusion.

Pilot Survey or Pre-test

It is found useful to conduct a pre-test known as Pilot test, on a small scale before starting the main survey. This is done to try out the questionnaire and the field method of obtaining the general information about the population to be sampled. The information supplied by the pilot survey helps in

1. Estimating cost of the main survey and time, needed for the availability of the results.

2. Improving the organisation of the field work by removing the defects or fault observed in the pilot survey.

3. Formulating effective methods of asking questions and also in the improvement of the questionnaire.

4. Training of field staff.

HOW SECONDARY DATA IS COLLECTED?

Secondary data are those which are collected by some other agency are used for further studies. It is not necessary to conduct special surveys and investigations we can obtain the required statistical information from other institutions or reports which are already published by them as a part of their routine work. It saves cost and time which are involved in the collection of primary data

Secondary data may be either (a) Published or (b) unpublished.

Published Sources

The various Sources e of published data are

- 1. Government Publications**
- 2. Publication of International**
- 3. Semi- official publications organisations**
- 4. Reports of Committees and commission**
- 5. Private Publications.**
 - (i) Journal and newspapers.**
 - (ii) Research institution**
 - (iii) Professional Trade bodies**
 - (iv) Annual Reports of Joint Stock Companies**
 - (v) Articles, market review and reports.**

Unpublished Sources.

There are some unpublished Secondary data as well. These data are collected by their self the government organisation and others, generally for use or office records. These data are not published. These unpublished numerical information may be used as secondary data

LIMITATION OF SECONDARY DATA

- 1. They may not be collected by proper procedure.**

- 2. They may have been influenced by the biased now investigation or personal prejudices.**
- 3. They may be out of date and suitable to the present period.**
- 4. They may not satisfy a reasonable degree of accuracy.**
- 5. They may not be suitable for required purpose.**

PRECAUTION IN THE USE OF SECONDARY DATA

The Investigator should consider the following points before using the Secondary data

- i) Are the data reliable.**
- ii) Are the data suitable for the purpose of investigations**
- iii) Are the data adequate?**
- (iv) Are the data collected by proper method?**
- (v) From which source were the data collected?**

Some Important sources of Secondary data.

There are various sources and Organisations through which statistical data are being compiled in India. Statistics are necessary for framing and judging the progress of economic planning. The Study of Indian Statistic is made under following heads.

I Statistical Organisation of India

II Indian Statistical Material

- (i) Agriculture Statistics**
- (ii) National Income and Social Accounting**
- (iii) Population Statistics**
- (iv) National Sample Survey.**
- (v) Price Statistics**
- (vi) Industrial Statistics**
- (Vii) Trade Statistics**

(viii) Finance & Statistics

There are some agencies both at the national and state level, which collect, process and tabulate statistical data. Some important major agencies at the national level are census of India, National Sample Survey Organisation (NSSO), Labour bureau, central Statistical Organisation (CSO), Registrar General of India (RGI), Director General of commercial intelligence and Statistics etc.

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