UNIT- II

I.   WHAT ARE THE SOURCES AND METHODS OF GATHERING MARKETING INFORMATION:
- RESPONDENTS
- EXPERIMENTS
- SIMULATION (AS A SOURCE OF DATA GENERATIONS)
- PANELS

II. WHAT ARE THE VARIOUS SOURCES OF PRIMARY & SECONDARY DATA COLLECTION? DISCUSS THEIR RELATIVE MERITS AND DE-MERITS

III. DISCUSS THE SAMPLING DESIGN PROCESS AND SAMPLING METHODS. WHAT IS SAMPLING SIZE DETERMINATION.

I. WHAT ARE THE SOURCES AND METHODS OF GATHERING MARKETING INFORMATION?

There are two sources of information from where data for marketing research can be obtained.

A. INTERNAL SOURCES:

- These refer to the sources of information within the organization. In certain cases internal sources are indispensable without which the researcher cannot obtain desired results.
- Internal sources include accounting information (Trading Profit & Loss A/c and Balance Sheets of different years), salesmen's reports, statistics in relation to advertisement expenditure, transportation costs etc.
- Information from internal sources is easily available and no financial burden is involved in gathering the information.

B. EXTERNAL SOURCES:

- In order to study marketing problems in detail the need of external sources of marketing research arises.
- External sources are of immense importance and utility in case where research needs detailed and thorough investigation.
- External sources data can be divided with two categories (a) Primary data (b) Secondary data.

PRIMARY DATA COLLECTION METHODS

1. SURVEY METHOD OR QUESTIONNAIRE METHOD: (RESPONDENTS)

Survey method is also said as communication method as the data are collected by communicating with the respondents, either by face-to-face oral communication or by other means like telephone, mails, etc. This is a widely used method for collecting primary data. It is fit for any kind of research problem.

i. Interview: Interview involves a face-to-face interaction with the respondents. Personal interview includes collection of data by personally contacting the respondents. Interview is conducted using questionnaire, containing different types of questions.

ii. Telephonic Interview: Nowadays, a telephone survey can be easily conducted due to wide spread telephone facilities provided by telephone department and private companies.

iii. Mail Survey: In this method, data are collected by mail or letter. Well-designed printed copy of questionnaire is sent to known and unknown respondents with a request to return it back dully filled.

2. OBSERVATION METHOD:

Observational data are captured through observation of a behavior or activity. It is collected using methods such as human observation, open-ended surveys, or the use of an instrument or sensor to monitor and record information.

Types of Observation:

i. Structured v/s Unstructured Observation:

Structured observation involves a detailed plan regarding what and when to observe; why and how to observe, and where and who is to observe. Printed forms are used to record the behaviour of respondents.

Sometimes, the observer watches and notes the behaviour without any specific scheme or plan. Here, time, methods, place, and procedures of observing behaviour and recording data are not specified in advance. Such observation may turn as unstructured observation.

ii. Lives v/s Record Observation:

In case of the live observation, on-going or live behaviour and activities are observed.

The record observation consists of observing the recorded/ past behaviour of the relevant respondents.

iii. Direct v/s Indirect Observation:

Direct Observation involves observing behaviour of the respondents directly. There is no considerable physical distance between observer and respondents.

Indirect observation is the distanced observation. Behaviour is observed at the distance place. Direct or indirect observation is applicable to both live as well as record observation.

iv. Natural v/s Contrived Observation:

While natural observation is conducted in the original setting or situations, the contrived observation is based on artificially created environment.

Artificial situation is created, people are informed, and their behaviour is observed. The natural observation provides more reliable and original information.

v. Disguised v/s Undisguised Observation:

This is a very important classification of observation. Disguised observation is one in which the targeted people do not know that they are being observed. They will behave naturally and originally. Sometimes, the respondents are informed that their behaviour will be observed at a particular time.

Thus, they know that they are being observed. It is a kind of an undisguised observation. Because they are aware, they may behave differently than regular. Depending upon situations, the suitable method of observation is used.

3. EXPERIMENTAL METHOD:

Under this method of data collection, a cause and effect (i.e., causal) relationship is established. The independent variables are manipulated to measure the effects of such manipulation on the dependent variables.

For example, if marketing manager want to measure the effect of 10% price rise on sales, first, he raises price by 10% (manipulation of independent variable), and then he tries to measure the effects of the price rise on sales volume (impact on dependent variable).

Types of Experiment:

i. Field or Natural Experiment:

Such experiment is conducted in the real market situation. No attempts are made to create an artificial situation for manipulation and measurement of effects.

In a natural way, the independent variables are manipulated in one or more market places to measure their impact of dependent variables. One of the prime problems is that here the researcher has no control on the situation and, consequently, outcomes of experiment may be misleading.

ii. Laboratory or Artificial Experiment:

This experimental method differs significantly from the former one. Here, attempts are made to create artificial situations in which experiment is made. It is conducted in the controlled environment. The researcher has considerable control on the situations. The net or exact outcome may be obtained. But, it is conducted in a limited scale and it is difficult to derive general conclusions on the basis.

4. PANEL METHOD:

Panel research is a method for collecting data repeatedly, from a pre-recruited set of people. These individuals generally provide demographic, household and behavioral data, which can make conducting future studies easier. Technology, primarily the internet, has transformed panel research methodology by the ease of which we can access larger numbers of respondents. Panel research provides many advantages for companies

including faster turnaround, higher participation rates, and cost savings. The quantitative data can provide companies with insights into pricing, effectiveness and sales projection of their products or brand.

Types of Panel:

i. Consumer Panel: Such panel involves only consumers. They are consulted for the required data, or they provide data periodically on any issue related to market as per the contract.

ii. Dealer Panel: Dealer panel consists of middlemen, such as wholesalers, retailers, and agents. They can provide valuable information regarding consumers, competitors, and overall market environment.

iii. Supplier Panel: Suppliers are those parties who supply necessary inputs like raw materials, provisions, parts, and other inputs required for production and marketing of products. This panel also includes service providers like insurance companies, transporters, bankers, and so forth.

iv. Continuous or Periodical Panel: Continuous panel provides information on a continuous basis. They maintain live contact with a company and inform the company as and when they feel that the information is important. Periodical panel, on the other hand, provides detail at a fixed interval.

v. Permanent or Temporary Panel: Permanent panel is standing in nature. Such panel serves for relatively a long period to time. On the other hand, the temporary panel is ad-hoc in nature. It is terminated when the time is over.

5. SIMULATION METHOD

Simulation data are generated by imitating the operation of a real-world process or system over time using computer test models.

For example, to predict weather conditions, economic models, chemical reactions, or seismic activity.

This method is used to try to determine what would, or could, happen under certain conditions.

The test model used is often as, or even more, important than the data generated from the simulation.

II. WHAT ARE THE VARIOUS SOURCES OF PRIMARY & SECONDARY DATA COLLECTION? DISCUSS THEIR RELATIVE MERITS AND DE-MERITS

BASIS FOR COMPARISON	PRIMARY DATA	SECONDARY DATA
Meaning	Primary data refers to the first hand data gathered by the researcher himself.	Secondary data means data collected by someone else earlier.
Data	Real time data	Past data
Process	Very involved	Quick and easy
Source	Surveys, observations, experiments, questionnaire, personal interview, etc.	Government publications, websites, books, journal articles, internal records etc.
Cost effectiveness	Expensive	Economical
Collection time	Long	Short
Specific	Always specific to the researcher's needs.	May or may not be specific to the researcher's need.
Available in	Crude form	Refined form
Accuracy and Reliability	More	Relatively less

PRIMARY DATA:

- This refers to the information collected by the researcher from original sources.
- It is not a published data; it has to be gathered by the researcher himself by tapping various resources. Primary data is usually collected for specific purposes.
- The main sources from where primary data can be obtained are (a) Salesmen (b) Dealers; (c) Consumers etc.
- It is a very slow process of collecting data and involves huge costs. But results obtained from this data are original and tend to be more accurate and reliable.

These sources are explained below:

i. **Salesmen:** Salesmen are the most important source of providing first-hand information. They have a direct link with the consumers understand tastes, preferences and buying habits of the consumers.

ii. **Dealers:** Valuable information can be collected with regard to demand of the product from retailers. Information about the marketing policies of competitors can also be gathered from the dealers.

iii. **Consumers:** This source of collecting primary data is of great importance. Representative samples of consumers may be selected for conducting thorough investigation with regard to price, quality and use of the product.

Merits

(i) Degree of accuracy is quite high.

(ii) It does not require extra caution.

(iii) It depicts the data in great detail.

(iv) Primary source of data collection frequently includes definitions of various units used.

(v) For some investigations, secondary data are not available.

Demerits

(i) Collection of data requires a lot of time.

(ii) It requires lot of finance.

(iii) In some enquiries it is not possible to collect primary data.

(iv) It requires a lot of labour.

(v) It requires a lot of skill.

SECONDARY DATA:

Secondary data is already existing which has been collected and published by some individuals or institutions.

This data is available at a very low cost and it requires lesser time to collect it.

The main sources of secondary data are:

i. ***Periodicals and Newspapers:*** Business magazines and journals published periodically contain data which is very useful for marketing research; Newspapers such as Economic Times and Financial Express also contain data regarding business trends and market reports.
ii. ***Govt. Publications and Reports:*** There are innumerable publications brought by Central and State Govts, which contain valuable data for conducting marketing research. Census reports of the Government of India, Publications of Planning Commission; periodical publication such as Indian Review, various markets bulletins.
iii. ***Trade Associations***: Various trade associations like Chambers of Commerce, Export Promotion Council etc., publish useful data which is of immense help to the res warmer.
iv. ***Published Surveys of Markets:*** Market surveys and reports are important instruments in the hands of researcher for conducting marketing research. These are

published by business houses or independent research organizations. These pertain to specific lines of products.

v. ***Foreign Govts, And International Agencies:*** Publications of foreign Govts, with regard to trade and other important aspects of economy of respective countries and information published by UNO, ILO, IBRD (International Bank for Reconstruction and Development) serve useful purpose in making comparison of Indian conditions prevailing in other countries of the world.

Merits

(i) Use of secondary data is very convenient.

(ii) It saves time and finance.

(iii) In some enquiries primary data cannot be collected.

(iv) Reliable secondary data are generally available for many investigations.

Demerits

(i) It is very difficult to find sufficiently accurate secondary data.

(ii) It is very difficult to find secondary data which exactly fulfils the need of present investigation.

(iii) Extra caution is required to use secondary data.

(iv) These are not available for all types of enquiries.

DISCUSS THE SAMPLING DESIGN PROCESS AND SAMPLING METHODS. WHAT IS SAMPLING SIZE DETERMINATION.

A. PROBABILITY SAMPLING METHODS

1. **Simple random sampling:** In this case each individual is chosen entirely by chance and each member of the population has an equal chance, or probability, of being selected.
2. **Systematic sampling:** Individuals are selected at regular intervals from the sampling frame. The intervals are chosen to ensure an adequate sample size. Systematic sampling is often more convenient than simple random sampling, and it is easy to administer.
3. **Stratified sampling:** In this method, the population is first divided into subgroups (or strata) who all share a similar characteristic. It is used when we might reasonably expect the measurement of interest to vary between the different subgroups, and we want to ensure representation from all the subgroups.
4. **Clustered sampling:** In a clustered sample, subgroups of the population are used as the sampling unit, rather than individuals. The population is divided into subgroups, known as clusters, which are randomly selected to be included in the study. Clusters are usually already defined, for example individual GP practices or towns could be identified as clusters. In single-stage cluster sampling, all members of the chosen clusters are then included in the study.

B. NON-PROBABILITY SAMPLING

1. *Convenience sampling:* Convenience sampling is perhaps the easiest method of sampling, because participants are selected based on availability and willingness to take part.
2. *Quota sampling:* This method of sampling is often used by market researchers. Interviewers are given a quota of subjects of a specified type to attempt to recruit.
3. *Judgement (or Purposive) Sampling:* Also known as selective, or subjective, sampling, this technique relies on the judgement of the researcher when choosing who to ask to participate. Researchers may implicitly thus choose a "representative" sample to suit their needs, or specifically approach individuals with certain characteristics. This approach is often used by the media when canvassing the public for opinions and in qualitative research.
4. *Snowball sampling:* This method is commonly used in social sciences when investigating hard-to-reach groups. Existing subjects are asked to nominate further subjects known to them, so the sample increases in size like a rolling snowball.

C. SAMPLING DESIGN

1. **Defining the universe or population** of interest is the first step in any sample design. The accuracy of the results in any study depends on how clearly the universe or population of interest is defined. The universe can be finite or infinite, depending on the number of items it contains.
2. **Defining the sampling unit** within the population of interest is the second step in the sample design process. The sampling unit can be anything that exists within the population of interest. For example, sampling unit may be a geographical unit, or a construction unit or it may be an individual unit.
3. **Preparing the list** of all the items within the population of interest is the next step in the sample design process. It is

from this list, which is also called as source list or sampling frame, that we draw our sample. It is important to note that our sampling frame should be highly representative of the population of interest.

4. **Determination of sample size** is the next step to follow. This is the most critical stage of the sample design process because the sample size should not be excessively large nor it should be too small. It is desired that the sample size should be optimum and it should be representative of the population and should give reliable results. Population variance, population size, parameters of interest, and budgetary constraints are some of the factors that impact the sample size.

5. **Deciding about the technique of sampling** is the next step in sample design. There are many sampling techniques out of which the researchers has to choose the one which gives lowest sampling error, given the sample size and budgetary constraints.

D. SAMPLE SIZE DETERMINATION

Before you can calculate a sample size, you need to determine a few things about the target population and the sample you need:

- **Population Size —** How many total people fit your demographic? For instance, if you want to know about mothers living in the US, your population size would be the total number of mothers living in the US. Not all populations sizes need to be this large. Even if your population size is small, just know who fits into your demographics. Don't worry if you are unsure about this exact number. It is common for the population to be unknown or approximated between two educated guesses.

- **Margin of Error (Confidence Interval) —** No sample will be perfect, so you must decide how much error to allow. The confidence interval determines how much higher or lower than the population mean you are willing to let your sample mean fall. If you've ever seen a political poll on the news,

you've seen a confidence interval. For example, it will look something like this: "68% of voters said yes to Proposition Z, with a margin of error of +/- 5%."

- **Confidence Level —** How confident do you want to be that the actual mean falls within your confidence interval? The most common confidence intervals are 90% confident, 95% confident, and 99% confident.
- ***Standard of Deviation —*** How much variance do you expect in your responses? Since we haven't actually administered our survey yet, the safe decision is to use .5 – this is the most forgiving number and ensures that your sample will be large enough.

Calculating Sample Size

Okay, now that we have these values defined, we can calculate our needed sample size. This can be done using an online sample size calculator or with paper and pencil.

Your confidence level corresponds to a Z-score. This is a constant value needed for this equation. Here are the z-scores for the most common confidence levels:

90% – Z Score = 1.645

95% – Z Score = 1.96

99% – Z Score = 2.576