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ASSIGNMENT

Course Code	:	MS - 66
Course Title	:	Marketing Research
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Note: Attempt all the questions and submit this Assignment to the Coordinator of your Study Centre. Last date of submission for January 2022 session is 30th April, 2022 and for July 2022 session is 31st October, 2022. *

1. a) Explain the meaning and importance of marketing research in the decision making process. Illustrate.
b) What are the two methods of conducting marketing research that firms can consider? Discuss the problems/ challenges that firms face in conducting marketing research in India.
2. a) What is research design? Explain the concept and importance of research design in the context of marketing research problem.
b) Explain the term data collection. Discuss the different types of data needed for marketing research. Evaluate the merits and demerits of each type of data.
3. a) With suitable examples discuss briefly the various methods of probability sampling that is available for a researcher.
b) When and why the four types of attitudinal scales are used in marketing research. Explain each of these scales with suitable examples.
4. a) In what situations Qualitative and Quantitative research is used? Discuss with suitable examples.
b) Write an essay on the application areas of marketing research in India.

ASSIGNMENT REFERENCE MATERIAL (Jan22 to July 22)

MS-66

Marketing Research

Q1. a) Explain the meaning and importance of marketing research in the decision making process. Illustrate.

Ans:- Marketing research is a key to the evolution of successful marketing strategies and programmes. It is an important tool to study buyer behavior, changes in consumer lifestyles and consumption patterns, brand loyalty and forecast market changes. Research is also used to study competition and analyze the competitor product's positioning and how to gain competitive advantage. Recently, marketing research is being used to help create and enhance brand equity.

According to Philip Kotler, Marketing research is systematic problem analysis, model building and fact finding for the purposes of important decision making and control in the marketing of goods and services.

The important decision making related to market strategy and other tasks related to marketing depends on findings or marketing research. Marketing research process reduces the chances of errors, miss conceptions and uncertainty from decision making process. It is therefore very important to conduct marketing research to identify any changes in market environment, and understand customers and market. It means that this is the process of strategically importance.

Importance of Marketing Research

Marketing research is a systematic collection and analysis of data about market and the important quality of market. Therefore, Market research is an extremely part of any business that wants to offer products or service that are focused and well targeted. It also affects the profit of a business and makes the best return on marketing investment. For example, a product's price elasticity research can help you to find out the true or correct information that impact of an increased price on the sales and the profits of a product. This special importance give on profitability also helps the company's focus to shift from widen the sales to increase the profits of a company and helps the company to survive longer.

Research is about finding and gathers the information to learn about something that is not fully known. Marketing research is allows company to discover the facts whether customers or consumers is satisfy with it. And it also provides crucial information that may be affecting the business. In addition, Market research will also minimize the risk as it can help to shape a new product or service, and identifying what is needed and ensure that the development of a product is high level focused towards needs and wants.

Furthermore, market research also helps to identify opportunities. For example, if there is a plan to operate a new service and would like to have enough information or experience of the people's attitudes then the market research can give not only evaluating new idea but also identify the areas where a marketing needs to develop and improve. To survive in competition of markets is not easily especially markets has been throughout the world. Marketing research helps to find out the true or correct information and understand the competitor such as their identity, the marketing network, what is customer focus on and the range of level operations. Other than that, with market research can also helps to understand the consumer needs that have not been met. Target markets is also one of the important points that marketers should take notes with, from marketing research it helps to decide the target markets and provide customer information in terms of their location, age, gender and buying behavior.

Besides that, marketing research helps to create benchmarks and prepare the plans carefully and take necessary measures and give opinion of the amount, value or quality for its performance. Moreover, marketing research is system that has been give devise more effective strategies. The most useful of marketing research is help to identify the potential problems and give ample time to discover the facts and to calculate an effective solution.

Marketing Research Process

There are seven steps in marketing research process: define the research problem, determine the research design, choose the method for collecting primary data, design the sample, collect the data, analyze and interpret the data, prepare the research report. Though those steps, marketers will make conversant decisions or reduce the risk of their decisions.

Marketing Research Process

1. PROBLEM DEFINITION:- This is the starting point in the marketing research exercise. Invariably, in any enterprise, there are several marketing issues that may require examination, and invariably every decision maker perceives his information need as being the most important. In problem definition it is important to be specific, avoiding ambiguities and generalities. Care should also be taken, not to define problems in too narrow a field as that may distract the researcher's perspective. This may even affect creativity in the research.

2. RESEARCH OBJECTIVES:- Once the problem is defined, the next logical step is to state what the researcher wants to achieve. This statement is called objectives. To be meaningful and help focus the researcher's attention, these objectives should be specific, attainable & measurable. The purpose of these objectives is to act as a guide to the researcher and help him in maintaining a focus all through the research.

3. RESEARCH DESIGN:- The third stage in the marketing research process is deciding on the research design. There are three types of research designs, namely:

Exploratory: This kind of research is conducted when the researcher does not know how & why a certain phenomenon occurs, for example, how does the consumer evaluate the quality of a bank or a hotel or an airline? Since the prime goal of an exploratory research is to know the unknown, this research is unstructured. Focus groups, interviewing key customer groups, experts and even search for printed or published information are some common techniques.

Descriptive: This research is carried out to describe a phenomenon or market characteristics. For example, a study to understand buyer behavior & describe characteristics of the target market is a descriptive research. Continuing the above example of service quality, a research done on how consumers evaluate the quality of competing service institutions can be considered as an example of descriptive research.

Causative: This kind of research is done to establish a cause and effect relationship, for example the influence of income & lifestyle on purchase decision. Here the researcher may like to see the effect of rising income & changing lifestyle on consumption of select products.

4. SOURCES OF DATA:- Once the research design has been decided upon, the next stage is that of selecting the sources of data. Essentially there are two sources of data or information- secondary & primary

Secondary data: This refers to the information that has been collected earlier by someone else. Often this includes printed or published reports, news items, industry or trade statistics etc. this also includes internal documents like invoices, sales reports, payment history of customers etc. these are important to the researcher as they provide an insight to the problem. Often the preliminary investigation is restricted to secondary data.

Primary data: To overcome the limitations of incompatibility, obsolescence and bias, the researcher turns to the primary data. This is also resorted to when the secondary data is incomplete. Primary sources refer to data collected directly from the market place- customers, traders & suppliers often are the major sources. They are often reliable data sources and help in overcoming limitations of secondary data. The problem in primary data is its cost, both in terms of money & time, and often a researcher bias also creeps in.

5. DATA COLLECTION:- The researcher is now ready to take the plunge. But still he or she needs to be clear about the following.

Procedure for data collection.



Data can be collected through any or combination of the following techniques.

Observation: This technique involves observing how a customer behaves in the shopping area, how he or she dresses up & what does the customer say when he or she sees the product.

Experimentation: This is a technique that involves experimenting new product ideas, advertising copies & campaigns, sales promotion ideas & even pricing & distribution strategies with the target customer group. These experiments can be conducted in an uncontrolled environment or in a controlled & simulated market environment.

Tools for data collection

The researcher has to decide on the appropriate tool for data collection. These tools are:-

Questionnaire — used for the survey method

Interview schedule — used mainly for exploratory research

Association test — primarily used in qualitative research, also called as TAT (Thematic Apperception Test)

6. DATA ANALYSIS:- The next stage is that of data analysis .It is important to understand raw data has no usage in marketing research .hence appropriate analytical tools must be used. The most elementary is the arithmetic analysis using percentile and ratios. Statistical analysis like mean, median, mode, percentages, standard deviation and coefficient of correlations should be used wherever applicable

7. REPORT & PRESENTATION:- The last stage is that of writing out a report and making a presentation to the Decision —maker. It is important that the report has summary, called the executive summary, giving a bird's-eye view of the research. This is because most senior managers have little time for going through the entire report in depth. The executive summary can direct the reader's attention to specific issues by turning to the relevant sections in the report and should not exceed thousand words.

The report should be structured and pages chronologically numbered generally, the structure of a good report is somewhat like the following:

- Introduction to the problem
- Marketing research finding or survey findings
- Interpretation of research finding
- Policy implications

b) What are the two methods of conducting marketing research that firms can consider? Discuss the problems/ challenges that firms face in conducting marketing research in India.

Ans:- Broadly speaking, a firm can get the researches conducted in two ways: either through its own staff or by hiring the services of outside agencies. Some firms make use of both the alternatives.

So far as the in-house research is concerned, it can be conducted by the firm's sales and marketing staff or else they can have specialized staff or department for conducting marketing researches. Since the employment of specialized research staff or setting up of a separate research department entails huge expenditure, only large firms requiring researches on a frequent basis go in for this type of organizational arrangement. Small firms and the organizations not so frequently requiring researches prefer using their sales or marketing staff for undertaking research studies. As and when the need arises, some of the sales and marketing persons are picked up and assigned the research tasks. Since these persons generally do not have specialized knowledge of marketing research and, moreover, perform side by side the routine sales and marketing activities quality of the studies conducted by such persons remains under doubt.

The other important method of collecting information is the use of outside agencies or experts such as marketing research organizations, advertising agencies and consultants. Seeing the increased demand for research services, many a marketing research organization have come up in the country and help business firms through provision of customized as well as syndicated research services. When the research is tailor-made to meet the information needs of one particular client, it is known as customized research. Since the benefit of such a

research accrues to a single firm, that single firm alone bears the entire research cost. Syndicated research, on the other hand, involves collection of a common pool of data for meeting the information needs of a number of firms. As the results of such a study are shared among several firms, it costs pretty less to a single firm. Quite often, these studies are undertaken on a regular basis by the research agencies and the information so collected is made available to the firms on a subscription basis.

Table 2 contains the information regarding usage of different modes of conducting researches. It is evident that the majority of the Indian firms (about 70 percent) depend upon their sales staff for doing researches. Use of outside marketing research agencies comes next in order of importance, with about one-half of the firms employing them. In-house marketing research staff exists in the case of 44 percent of the firms, especially among the large size firms and those engaged in marketing of industrial products and services. About one-third each of the Indian firms get their marketing research studies done through advertising agencies and consultants.

Syndicated researches are not yet common among the Indian firms. Despite their low costs to the clients and the advantage of such information in many cases being available at regular intervals, only about one-fifth of the firms make use of the syndicated research services.

**Table 2
Organizational Arrangements for Conducting Marketing Research in India**

Arrangement	Percentage of firms*	Nature of the firms preferring the arrangement
Firms' sales staff	69	Firms of all sizes, industrial goods and services marketers
Marketing research agencies	52	Large firms, consumer goods marketers
In-house marketing researchers	44	Large firms, industrial goods and services firms
Advertising agencies	35	Smaller firms
Consultants	34	---
Syndicated research services	22	Large firms and consumer goods firms

Table 2 also provides information about the nature of the firms preferring a particular arrangement. It can be observed that practice of using sales staff for carrying out researches exists among the firms of all sizes. Use of in-house marketing research staff, outside research agencies and marketing research services is more often prevalent among the larger rather than medium mid small size firms. Important differences also, exist among firms selling different types of products. While industrial goods and services firms show a greater reliance on their sales persons and in-house marketing research staff, consumer goods firms depict a

preference for marketing research agencies and syndicated research services to meet their information needs.

Due to country's vast size, heterogeneous population and infrastructural and attitudinal problems, it is not easy to conduct marketing research in India. Some of the major problems that you as a researcher would face in conducting marketing research in the country are discussed below.

India's large and heterogeneous population comes in a big way in conducting marketing research. Being a big and diverse country, national surveys require India to be divided into several hundred districts and interviewing several thousands of people. This calls for enormous time and money and a big fleet of field workers - well beyond the capacity of any small or medium size company.

Cultural diversity and linguistic nuisances further compound the researcher's problem. More than 14 languages are spoken in the country, with dialects exceeding 1,400 in number. Any major survey in the country requires translation of the questionnaire in a minimum of five to six languages. Many a time, strict translation of certain technical words or phrases is not possible, thus giving rise to the problem of non-comparability of data across the regions.

Accessibility to people living in the hinterland of the country is another big problem. Only very few people own telephone. Postal system is also not up to the mark: Because of low literacy level, mail interviews are of limited application. Personal interviews seem to be the only viable alternative, but even these are beset with transport problems and lack of trained staff in the small towns and rural areas.

Secondary data available in the country also suffer on account of poor coverage and redundancy of information. Data are at all not available for many a variable of interest to the researchers. Though census is conducted after every ten years in the country, it is after a considerable lapse of time that the full results are released. Even the trade and industry associations lack complete and upto-date lists of the manufacturers and trades. The industry and firms' production and sales figures are also not complete, upto-date and reliable.

Use of random and other elaborate sampling techniques presuppose the existence of suitable sampling frames (i.e., list of the target market population from which the samples are drawn). Non-availability of such lists in the country complicates the research tasks and forces the researcher to use non-probability sampling methods, thus adversely affecting the reliability and validity of the survey results.

Attitudinal problems also restrict the use of marketing research in India. The study by Consulting and Research Enterprise (CORE) group, for instance, found that only two-third of the executives of the surveyed firms had the opinion that marketing research findings represent the real world, and marketing research data are reliable enough to be of use in decision making. In response to the question whether costs incurred on marketing research are low relative to the benefits that accrue from it, about 58 per cent firms indicated disagreement, implying low utility of marketing research. Further only 57 per cent of the executives refuted the statement that "gut feeling is more important than marketing research". Rest were either ambivalent or in agreement with the statement.

The managers also appeared quite concerned with the time involved in completing the marketing research studies. Only 42 per cent of the respondents did not feel that " market research often takes too long to be of any real use". In terms of quality and sophistication too, marketing research in India in the opinion of many executives is far below the expectations.

Not only the business firms, but advertising agencies also do not hold favorable attitudes towards marketing research. Advertising executives view it as a hindrance to their -creative work and hence do not like spending much money on it. In 1988,. about Rs. 1078 crores were spent on advertising in the country. Had even 1 per cent of this amount been spent on marketing research, the expenditure on advertising research alone would have been Rs. 10.78 crore. But its is not due as the total expenditure on commissioned marketing research itself in India was just of the order of Rs. 10.06 crore in 1988-89.

Q2. a) What is research design? Explain the concept and importance of research design in the context of marketing research problem.

Ans:- The research design is a comprehensive master plan of the research study to be undertaken, giving a general statement of the methods to be used. The function of a research design is to ensure that requisite data in accordance with the problem at hand is collected accurately and economically. Simply stated, it is the framework, a blueprint for the research study which guides the collection and analysis of data. The research design, depending upon the needs of the researcher may be a very detailed statement or only furnish the minimum information required for planning the research project. To be effective, a research design should furnish at least the following details.

- a) A statement of objectives of the study or the research output.
- b) A statement of the data inputs required on the basis of which the research problem is to be solved.
- c) The methods of analysis which shall be used to treat and analyse the data inputs.

Let us try to understand the elements through an example:

A newly opened supermarket sells a broad line of merchandise ranging from provision to household appliances and kitchenware. The general manager (sales) believes that the total profits of the supermarket can be enhanced by getting people to buy in larger quantities which could be achieved by offering attractive cash discount on bigger purchases. As the other executives are doubtful about this. The hypothesis can be tested by carrying out a marketing research exercise.

- 1) The objective is to calculate the margin earned on sales when this discount is offered and compare it with the margin when discount is not being offered.
- 2) The data to be collected over a period of time
 - a) Sales in rupees to a selected sample of customers during the period when the discount is offered.
 - b) Sales in rupees to the same customer when the discount is not being offered.

- c) The average order size in the two periods.
 - d) The average margins earned during the two periods.
 - e) The cost of promotional inputs regarding the discount.
- 3) The analysis of the data will be
- a) Sales in rupees in period I minus those in period II.
 - b) Subtract cost of incentives.
 - c) Also subtract cost of promotional inputs.

The importance of research design lies in the fact that it makes a statement of what is to be done in order to achieve the research objectives and how it is to be done. It is an expression of what is expected of the research exercise in terms of results and the analytical input needed to convert data into research findings.

The research design furnishes a clear idea as to the activities that would need to be undertaken in order to achieve the research objective. It is therefore, helpful if the research design after being finalised is put in writing to enable the researcher to have a frame of reference and prevent the study from deviating.

At the stage of analysis and interpretation also, the research design helps in providing direction to the computation and interpretation process to arrive at solution and recommendations. This is however not to suggest that a design is a rigid straitjacket to which the study must always conform. The research design only represents an expectation of likely results but as the study proceeds, many unexpected results may come forth which may necessitate framing of new hypothesis or at least modifying some. The research design is only a guiding and not a limiting framework for research study.

b) Explain the term data collection. Discuss the different types of data needed for marketing research. Evaluate the merits and demerits of each type of data.

Ans:- Data collection is the process of gathering and measuring information on targeted variables in an established system, which then enables one to answer relevant questions and evaluate outcomes. Data collection is a research component in all study fields, including physical and social sciences, humanities, and business. While methods vary by discipline, the emphasis on ensuring accurate and honest collection remains the same. The goal for all data collection is to capture quality evidence that allows analysis to lead to the formulation of convincing and credible answers to the questions that have been posed. Data collection and validation consists of four steps when it involves taking a census and seven steps when it involves sampling.

Regardless of the field of study or preference for defining data (quantitative or qualitative), accurate data collection is essential to maintain research integrity. The selection of appropriate data collection instruments (existing, modified, or newly developed) and delineated instructions for their correct use reduce the likelihood of errors.

A formal data collection process is necessary as it ensures that the data gathered are both defined and accurate. This way, subsequent decisions based on arguments embodied in the findings are made using valid data. The process provides both a baseline from which to measure and in certain cases an indication of what to improve.

Types of Data

As you have already noted there are two general types of data - Primary and Secondary classified on the basis of purpose of collection or source. Primary data are those that are collected specifically for the research situation at hand. Conversely secondary data are already published data collected for purposes other than the specific research needs at hand. On the basis of location of sources, secondary data may again be classified as internal or external data.. The data originating within or available within the organisation as a byproduct of the MIS or the routine reporting system is called internal data of any given marketing research problem, initial data collected for purposes other than that specific problem could be termed internal secondary data.

Secondary data generated outside the organisation is termed external secondary data and can be collected from a multitude of sources like government publication, trade association publications, official reports, journals and periodicals and publication of marketing research agencies. Secondary data can & ISO be thought from research agencies though this is a fairly expensive proposition.

Secondary data may also be classified on the basis of whether it is periodic data or ' adhoc data. Periodic data characterises most statistics collected over fixed periods of time like the census data, data from statistical abstracts of trade and other sector's, price indices and so on. Adhoc data, on the other hand refers to the data obtained from a certain project report.

Before discussing the sources of secondary data, let us first try to envisage what type of research objectives and information needs may necessitate use of secondary data. Some examples could be

- a) You want to estimate the total market potential of thermocol packaging cases in the country.
- b) Being a manufacturer of television sets, you want to develop a national method for establishing sales quota statewide.
- c) As a person making automobile batteries, you want to estimate the potential market for battery replacements as well as develop methods for determination of countrywise, statewide and districtwise sales quotas.
- d) You would like to predict the potential sales of paper and allied products to wholesaler and retailer, for the year 1991.
- e) You are required to select a city in Western Maharashtra to locate another distribution centre for the spare parts of your two wheeler products.
- f) You are interested in allocating your sales promotion budget in proportion to the potential markets, statewide in the northern pan of India.

The type of secondary data required to Meet some of the above research objectives would be population data, estimates of total television sales, statewise, number of households with televisions per capita income estimates, distribution of income statistics. Number of registrations, number of households without cars, value of box shipments by end use and so on. You have read about the various kind of research designs in the preceding unit. With the type of research design chosen need and use of secondary data differ.

In monitoring research, the researcher is trying to keep a track of a programme or phenomenon with respect to the variables under study (it may be the progress of pan under study or a specific progress) and is keen to sense changes in the environment which could help or hamper the product programme under study. Most of the data for this type of monitoring would come from secondary sources and quite a substantial part of it would be internally generated. For example accounting data on sales, expenses and margins earned could provide significant clues to the progress of the product in the given market. Sales force reports could generate observations about customers and market trends that could be used to sound early warning bells to the executives.

Preliminary research also makes extensive use of secondary data, though data can be gathered afresh also, in small or informal primary studies. In this case secondary data is used to estimate parameters of a problem or a trend and the changes in its environment. Preliminary research, since it explores nature and extent of the problem, does not generally merit the expense & delay of primary data collection. In this preliminary phase, usually descriptive data, both from internal and external sources can be used to understand and to define the nature of a research problem.

If you are undertaking exploratory research (for example if you are trying to explore the various possible combination of the communication mix which could yield the optimum mix) you will be able to make a relatively limited use of secondary data because this type of research is concerned with finding specific alternatives that should considered while arriving at a decision. Of course past experience of the company, its records or internal data could provide guidelines for action as could external secondary data, especially published material on consumer perception and reaction to different tools of the communication mix, media habits and so on.

Conclusive research, concerned as it is with establishing dependence or independence of the variables under study is mainly based on primary data gathered to suit the objectives of the research problem under study. For example, if you are interested in finding out whether a given sales promotion programme has a significant impact on the sales of 1neur new range of moulded luggage then you would have to rely primarily on fresh data generated specifically to establish the cause and effect relationship between the sales promotion programme and the luggage sold.

However, secondary data may be used for comparison purposes even in conclusive research. You might like to compare the industry trend in respect of promotional expenditures and sales with your own company position, or compare the position of the company statewise with that of its select competitors. Also secondary data is useful in framing a primary data collection programme, as well as in framing the sample or determining the sizes of the sub-samples.

Government Agencies and Official Publications: The largest single source of secondary data in macro terms are the publications by the Union government. Marketing researchers have relied on this source of data for estimating market potential and sales forecasts, determining distribution penetration and location of intermediate and final outlets, as well as for defining sales territories and routing schedules. Estimates of income and expenditure patterns become good starting points for estimation of paying capacity for different products and services. Estimates of literacy levels become effective inputs in planning promotional strategies. Over a period of time, the variety and depth of government data has increased manifold and its relevance to marketing research function has consequently enhanced. The following sources have special relevance for marketing research.

1) Population Statistics

Population statistics in India have been collected, every ten years since 1871-72. Besides forming a basis for most macro planning estimates, census data in respect of the marketing research function is the most important source of national population statistics and its basic characteristics especially demographic and economic. It provides factual bases for estimation of consumer demand for various goods and services, by furnishing data on size of population and its distribution by age, sex, occupation and income levels. Census also furnishes a sampling frame for reliable sample designs. Estimates of population density, distribution, literacy levels, consumption patterns all become important inputs in distribution decisions, communication -decisions and overall marketing policy.

2) Statistical Abstract of India

Brought out annually by The Central Statistical Organisation, this publication contains the statistics of various section of the Indian economy for the preceding five years. Statewise, statistics for these economic variables are also furnished periodically.

3) Estimation of National Product, Savings and Capital formation: (White paper on National Income)

This is also an annual publication of the Central Statistical Organisation. It publishes annual estimates, of national income, savings and consumption, capital formation and expenditure as well as national and public sector accounts.

4) Monthly Statistics on the Production of Selected Industries

To bridge the gap between the census taken and data published, the C.S.O. publishes monthly statistics relating to production, installed capacity and stock positions in selected industries. More than 90 industries are included in the compilation of chosen statistics.

5) Basic Statistics Relating to Indian Economy

Published annually by the statistics and survey division of Planning Commission this publication contains basic indicators on various aspects of economy for the past few years based on time series.

6) India, Pocketbook of Economic Information

It is an annual publication of the Ministry of Finance. Giving particular emphasis on estimates of foreign financial and international comparisons, it includes statistics on the various aspects of the national economy.

Other important publications include India, a reference manual, Agricultural Situation in India, RBI Bulletin, Economic Survey, Bulletin of Food Statistics, Commercial Crop Statistics and Indian labour statistics (which includes transport and communication statistics, data on employment in shop and commercial establishments etc.).

7) Trade Statistics

The Department of Commercial Intelligence and Statistics compiles monthly statistics of commercial intelligence and statistics, publishes data on import and export of goods in terms of their quantity and value, classified as received from or sent to centres of consignment. In addition, this publication provides information on value of foreign trade, balance of trade, foreign trade with each country and currency area, foreign trade in groups of commodities with each country and currency area, foreign trade with selected countries etc. It therefore, furnishes a good source of data for assessment of international market trends and potential. The Reserve Bank of India also publishes statistics on imports and exports based on exchange control data.

In addition, official reports both published and unpublished from organisations like National Sample Survey Organisation, Directorate of Economics and Statistics, Labour Bureau etc, furnish data on the different aspects of our economy. Agencies like Cottage Industry Board, National Small Scale Industries Corporation, Tea Board, Handicraft Board etc, provide specific information in respect of their own product categories.

Advantages of secondary data: The major advantage of secondary data is the economy of resources that it offers both in terms of money and time. Primary research involves selecting the sample frame, determining the sample size, choosing the tools of data collection, getting data collection instrument printed in case of field studies as well as editing tabulating and analysing the results, which turns out to be expensive and time consuming. Secondary data on the other hand can be collected by researcher from published or compiled research at very little cost and usually very speedily.

Another important advantage which characterises some secondary data services is that they provide access to information which would not ordinarily be obtainable by an individual organisation. The census of wholesale and retail establishments for example can require them to furnish details of sales, expenses and profit information which would be inaccessible to an individual researcher. Also, as information like this is collected in the usual course of events, the data is less prone to be biased which may be the case when the data is collected with a specific purpose in mind.

Limitations of secondary data: While economy and access to relatively unbiased information are important advantages, effective use of secondary data requires the overcoming of two major difficulties. These are the difficulties associated with fitness of data and accuracy of the data.

The data fitness problem: The problem here refers to the suitability or fitness of secondary data to the research problem at hand. As secondary data have been compiled for other

purposes, rarely are they completely pertinent to the information needs of the problem at hand. Even when they are relevant, the degree of fitness to a given research problem may be hampered by (a) Units of measurement (b) Class definition and (c) Recency.

Among the most common limitations of secondary data is the variation found in the units of measurement used for a given variable. For example if you want to have a reliable estimate of the disposable income in order to base your market projections on it, you may discover that depending upon the source, income may have been measured by individual, household or tax returns. In case you are required to use more than one of these sources the difference in the units of measurement would allow the information to be used only as rough approximation. Another common feature of secondary data is the variation in definition of classes that would be found in different data sources or even in different project reports of the same data source. For example definition of a class of literate population may have been defined as those who can read or write in any language, those who have had at least basic schooling, or those who have attained a certain educational certification, in different reports published by the same source or different sources.

Recency of the secondary data also becomes an important determinant of the use of secondary data. Marketing decisions can hardly be based on information that is dated and therefore no longer relevant. The use of census data which is an invaluable source of voluminous information is severely limited by the fact that not only do we have a decennial census, the reports of the census become available only a year or two after the census. Census information collected in 1981 would lose its relevance to most marketing decisions beyond 1985 or so, even though the data contains some of the most vital marketing data on income, consumption, expenditure savings and investment.

The accuracy problem: Once an appropriate source of secondary data has been identified, it is important to evaluate the accuracy of the data in relation to the research problem at hand. The following steps would help in evaluating the accuracy of the secondary data.

Identify the data source: Secondary data may be obtained from original source or from a secondary source which in turn has obtained them from somewhere else. As far as possible data must be collected from the original sources as you may then be able to evaluate the methodology of research that the original researcher has used. When secondary sources of secondary data are used, not only are details of methodology of original source non-available, errors originating at the secondary source may affect the accuracy of the original data. Moreover, secondary sources usually fail to keep up with the updated versions and adjustments reported by the original sources from time to time as more information becomes available to them. Secondary sources of data must therefore be used with caution and after careful scrutiny.

Examine the purpose for which data was published: Sources which publish to promote the interests of a particular group or for political commercial or social reasons must be treated with caution. Similarly data published to promote sales or to carry on a particular propaganda or to promote views of a particular interest group has limited use unless it is carefully interpreted in the light of purpose of publication. Data published anonymously or by an organisation which is on the defensive or under conditions which suggest a controversy or in a form which reveals a strained attempt at frankness or to controvert inferences from other data are generally suspect."

Assess the source in terms of the quality of data expected: In addition to identifying the organisation which collected the data, the ability of the organisation to procure the desired information must be assessed. For example, the department of internal revenue is much more likely to generate reliable information about income and expenditures simply because it has the authority to glean that kind of information.

Evaluation of the methodology of research used by the source in terms of research design, sampling plan data collection procedures and analysis procedures also furnishes important clues to the accuracy of secondary data. If the primary source is not willing to divulge the methodology of research one should be hesitant about using the data as unwillingness to share the details of methodology usually suggests inadequacies in the procedures used.,

Advantages of Primary data

Primary sources usually provide more detailed information than the secondary sources. This is partly because methods of data collection and the tools used can be tailored more precisely to the informational needs of the researcher. This also contributes to the flexibility of analysis for the research purpose at hand.

Terms and units can be more precisely defined and the researcher can choose the appropriate unit for this purpose with a much greater degree of fit since he has greater degree of flexibility in choosing the appropriate unit. In case of secondary data, as the data have been collected for some other purpose, the researcher may not have much of control over the choice of units used in the secondary data source.

The user in case of primary data can judge the degree of confidence that he may place on the data because he has an accurate idea of the tools and methodology used and their limitations.

In addition to the above general advantages, there are other merits which characterise the different methods of primary data collection. We shall study them under the section concerned with tools of data collection. The major limitations of primary data relates itself to costs in terms of time and money involved, availability of skilled investigators or interviewers and the errors that may creep in various stages i.e. sample selection, sample size selection, tools chosen etc.

Disadvantages Of Primary Data

There are numerous hassles involved in the collection of primary data like taking a decision such as how, when, what and why to collect.

The cost involved in the collection of primary data is very high.

Q3. a) With suitable examples discuss briefly the various methods of probability sampling that is available for a researcher.

Ans:- In probability sampling methods every element of the population has a known chance of being selected. Please note that the term known chance does not mean equal chance. Equal chance probability sampling is a special case of probability sampling, called simple random sampling. In probability sampling methods, there is no chance of arbitrary or biased selection

and therefore the laws of probability apply. Therefore, it permits us to measure the sampling error which is the difference between the population value and the sample, value.

There are a number of different sampling procedures that fall under probability sampling methods. Some of these methods are listed as under:

- 1) Simple Random Sampling
- 2) Systematic Sampling
- 3) Stratified Sampling
- 4) Cluster Sampling

Probability Sampling Methods

1) **Simple Random Sampling:** Under this sampling design, each member of the population has known and equal probability of being included in the sample. For details on how to draw samples using this sampling procedure, please review unit 13 of MS-8 course. Simple random sampling is not widely used in marketing research because of the following reasons.

i) In consumer research studies, we usually select individuals, households, shops or areas as the sampling units. It may not be easy to prepare a sampling frame as it is very difficult to get lists of households, individuals and shops, although areas may be completely represented through maps.

ii) We know that an industry comprises of various firms of different sizes. If one wants to study some aspects of an industry, one might like to choose a sampling design where there is a higher probability of a larger firm being selected. If that is the case, the very concept of simple random sampling becomes inapplicable in such situations. The simple random sampling has some applications in Industrial Marketing where generally purchasing agents or companies or areas are the sampling units which are usually not very big in number. Therefore, it becomes easy to prepare a sampling frame thus facilitating the use of simple random sampling.

2) Systematic Sampling: The mechanics of taking a systematic sample are very simple. Suppose the population consists of ordered N units (numbered from 1 to N) and a sample of size n is selected from the population in such a way that $\frac{N}{n} = K$ (rounded to the nearest integer). Here K is called a sample interval. Systematic sampling then consists in selecting a number at random between 1 and K (both inclusive) and then selecting every subsequent K th unit till a sample of size n is obtained.

To make the above more clear, let us assume that we have an ordered population of size $N=500$. Suppose it is decided to take a sample a size $n=50$. Therefore, our

sampling interval would be $\frac{N}{n} = \frac{500}{50} = 10$ We then select a number at random

between 1 to 10 (both inclusive) Suppose it turns out to be 6. Then our sample units would be 6, 16, 26, 36 and so on.

Systematic sampling is a case of mixed sampling where both probabilistic and non-probabilistic methods of choosing a sample are used. This is because the first unit of the sample is selected at random between numbers 1 and K (probabilistic method) and then the rests of the units of the sample are fixed by the choice of the first member (non-probabilistic method).

It is very likely that systematic sampling would result into more representative sample than simple random sampling. In systematic sampling the elements of the population are ordered in a particular fashion. Suppose we want to estimate the sales of all the retail stores in Delhi. Under a simple random sampling, if we draw a random sample of size n , it is very likely that Most of the sampled stores might turn out to be low sales volume store. However, in systematic sampling we order these retail stores according to ascending or descending order of sales, therefore, a systematic sample would definitely contain some low volume and high volume retail stores. Thus, a systematic sample is likely to be more representative than a sample random sample.

A systematic sample might also reduce the representativeness of the sample. This could happen if items are ordered in such a way to produce a cyclical pattern. Suppose a supermarket is interested in estimating average daily Sales by using a sample of certain daily sales. Suppose a sampling interval of seven days is chosen. The sample, would therefore, result in recording of the sales on the same day of the week. This would not reflect day-of-the week variations in sales. For example, a sample of Sundays would generally overstate sales and a sample of Wednesdays and understate sales.

Stratified Sampling: In stratified sampling, the entire population is divided into various mutually exclusive and collectively exhaustive strata (groups). By mutually, exclusive it is meant that if an element of a group belongs to one strata, then it doesn't belong to any other strata. By collectively exhaustive we mean that all the elements of various strata put together completely cover all the elements of the population. The groups (strata) are created on the basis of a variable (criteria) known to be correlated with the variable under study. The possible criteria for stratification of a population could be income of the individuals, age, sex, frequency of a purchase of a product, size of the household, size of the retail store, region of the country mid so on. The stratification is also possible on the basis of more than one variable. This, of course, increases the number of stratum. The cost of stratification may come as a constraint in increasing the number of group (stratum). A variable which is considered to be good in stratification of one population may not be so in the case of other. However, one thing should be kept in mind that stratification should be done in such a way so as to minimise the variability among sampling unit within strata (more homogeneous) and maximise the variability among strata (more heterogeneous).

Once the population has been divided into various strata, separate simple random sample of various sizes are selected from each stratum. There might be cases, where systematic or any other type of simple random samples may be selected from each stratum and the resulting design may still be called stratified sampling. The selection of the size of sample from each stratum can be done on either proportionate or disproportionate basis. In proportionate stratified sampling, the number of members selected from each stratum is proportional to its share of the total population. However, in case of disproportionate stratified sampling, the number of members selected from each stratum is not proportional to its share of total population, The choice of proportionate or disproportionate sampling method among strata depends upon whether the variances in each group (stratum) are equal or not. If the variance

of each stratum is almost equal, one should go for proportionate stratified sampling. If variances are not equal, a large sample should be taken from the stratum with large variance.

Stratified sampling is moderately used in marketing research. Suppose we are interested in estimating the retail sales of Kwality, (a brand name) .tea in Delhi. Before using stratified sampling method in its estimation, we may ask the question "What factors account for the variations in the retail sales of Tea?" We may possibly get the following two answers.

i) Size of the store-whether it is large, medium or small, Large stores are supposed to sell more tea than small stores,

ii) Day of the week, the sales is supposed to be more during week ends than during the week' days.

We have now three types of stores and two types of days of the week. So the total number of stratum (Groups) on which the total population can be divided is six. They are "large store and week days, medium store and weekend' and 'small store and week days". Once we are able to make six stratum, the sample from each stratum can be selected either according to proportionate stratified sampling scheme or- disproportionate stratified sampling scheme depending upon the variability in each stratum. One can similarly think of many other marketing research studies where stratified sampling method could be used.

4) Cluster Sampling: If we divide all the elements of the population into suitable, clusters; and select few clusters randomly and all the elements of the selected clusters are used, then this method of sampling is called cluster sampling'. This method of collecting data is cheaper since collection of data from nearby units is easier, faster and more convenient than collecting data over units scattered over a region. For instance, it would not only be cheaper but also convenient to collect data on all households in a sample of few villages.(clusters) than to survey a sample of the same number of households selected randomly from a list of all households.

The criteria for dividing the population into mutually exclusive and collectively exhaustive clusters is, that the elements in the clusters should be as heterogeneous as possible and elements between cluster should be as homogeneous as possible.

To make the concept of cluster sampling very clear let us consider a hypothetical population consisting of 24 elements divided into four equal-sized clusters as shown below:

Cluster

Population element number

Cluster 1	1, 2, 3, 4, 5, 6
Cluster 2	7,8 , 9, 10, 11,12
Cluster 3	13, 14, 15, 16, 17, 18
Cluster 4	19, 20, 21, 22, 23, 24.

Suppose we wanted to select a probability sample of size '12. We could do it in two ways. We could either take a simple random sample of size 12 from the population or alternatively we could select at random two clusters out of four clusters and use all the elements of these selected clusters. In both simple random sampling and cluster sampling, the sample size as a fraction of population size is same. However, all possible combination of elements are not equally likely in cluster sampling. Many of the combinations would be impossible.

5) Area Sampling

In a marketing research study involving sampling of population which may be grouped according to geographical areas (blocks), Census tracts, Communities, constituencies etc., another version of cluster sampling namely Area Sampling is used.

The entire area is divided into various clusters. The cluster may or may not be of equal size. Below we will discuss a sampling scheme where sampling is done by taking into account the size of the cluster. This type of design is called probability proportional to size sampling.

Probability Proportional to Size: This sampling design is used when we have to sample cluster of varying sizes. Suppose there is a tome divided into seven blocks (clusters) of varying sizes. Assume that in one of the blocks the size of the household is 120 whereas in the other block the size of the household is 80. The block having 120 size household should have greater probability of being selected than the one with a size of 80. In fact the probability in the first case should be 1.5 times the probability in the second case. This concept is used in this sampling design so that a greater weightage is given to the cluster with higher size.

b) When and why the four types of attitudinal scales are used in marketing research. Explain each of these scales with suitable examples.

Ans:- Measurement means the assignments of numbers to objects or persons to represent quantities of their attributes. The assignment of numbers is done according to some rule. The attribute of person could include his income, preference, religion, social class, attitude etc. Similarly we measure a product's speed, colour, size, flavour etc. It is the characteristic of the buyer or the product which is measured and not, the person or product itself. There are four types of scales used in marketing research to measure attitude towards a particular product/service. These are as follows:

1. Nominal Scale
2. Ordinal Scale
3. Interval Scale
4. Ratio Scale

1 Nominal Scale : In this type of measurement numbers are used to label persons, objects or events. For example, the variable sex may be categorized as male or female. One may assign a number 1 to male and 0 to female. It only helps us to identify that whenever number 1 is used we are talking about males and 0 in case of females. Similarly if the units in the population is to be classified according to religion viz. Hindu, Muslim, Sikh and Christian;

one may label Hindu as 101, Muslim as 102, Sikh as 103 and Christian as 104. The numbers, here, have no meaning in the sense that the category which is assigned a higher number is in no way more important (or bigger) than the category which is assigned a lower number.

The classification to identify objects, events and person is also done on the basis of the letters of english alphabets. Using the example mentioned in the preceding paragraph one could have labeled males as A and females as B. Similar procedure may be used for another type of classification. However, the classification should be done in such a way that groups are mutually exclusive and collectively exhaustive.

The only mathematical operation performed on nominally measured data is the count in each category. Numbers assigned to represent categories (e.g. 1 for male and 0 for female) cannot be added, subtracted, multiplied or divided. We can only say (if sample comprises of 100 respondents) that there are 70 males and 30 females. Also we can say that the sample comprises of say 40% Hindus, 20% Sikhs, 30% Muslims and 10% Christians. The statistical procedures applicable for nominal scale measurement are Mode and Chi-Square.

2. Ordinal Scale: A significant amount of consumer oriented research relies on ordinal measurement. Here numbers, letters or any other symbols are used to rank items. Ordinal scale tells us whether an object or event has more or less of a characteristic than some other object or event. Unfortunately this scale doesnot indicate how much more and how much less we have of the characteristics the objects or events possess. For example, we may be examining the marks in Marketing for 60 students in a class. Assume that the highest score in the class is 92, the second highest 63 and the third highest 60. We rank the person getting 92 marks as 1, 63 marks as 2 and 60 marks as 3. However the difference between the marks of first and second rank is not the same as the difference in the marks of students obtaining second and third rank.

Attitude Measurement & Scaling

The common mathematical operations like addition, subtraction, multiplication and division cannot be used with ranked data. However, statistical procedure based on interpretation of "greater than" or "less than" are permissible: The statistical methods applicable with ordinal data are percentiles, median and rank order correlation.

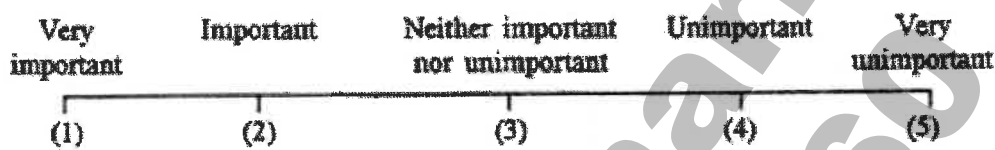
The ordinal scale measurement is of higher level than the nominal scale measurement. i.e. to say the ordinal scale data can also be converted into nominal scale data and thus will possess all the properties of nominal scale data. As an example assume that 107 consumers are divided according to their income and the classification is as given below:

Monthly Income (Rs.)	No. of Consumers (Rs.)
Less than 5000	20
5001 - 8000	30
8001 - 11000	25
11001 - 13000	20
13001 and above	12
TOTAL	107

A consumer having an income of Rs. 7500 will be ranked higher than the one having income of less than Rs. 5000 (Ordinal scale data). However, the sample of 107 consumers can be classified into 5 income categories to be labeled as A for less than Rs.5000, B for 5001-8000, C for 8001-11,000, D for 11001-13,000 and B for 13001 and above (nominal scale data). A consumer having a monthly income of Rs.12,000 will belong to category D.

3. Interval Scale : Interval scale responses are more powerful than ordinal scale responses. They not only possess the properties of ordinal and nominal scale measurement but also, the strength of the equality of differences between ranks. For example, the consumers may be asked the following question.

How important is price to you while buying furniture?



One may note that very important is assigned a number (1), important as (2) and so on and lastly very unimportant is assigned a number (5). What is assumed here is that the respondent is able to reply on a continuum scale and the difference between any two responses can be meaningfully interpreted,

The general mathematical form of interval scale is given by the equation.

$$Y = a + bX$$

Here we are considering an arbitrary zero point or starting point and therefore the division of two responses have no meaningful interpretation. Instead of giving number 1 to very important and 5 to very unimportant in the above example, if the numbering starts from 0 to 4 the picture would look like as shown below in Scales A and B.

	Very important	Important	Neither important nor unimportant	Unimportant	Very unimportant
Scale A	(1)	(2)	(3)	(4)	(5)
Scale B	(0)	(1)	(2)	(3)	(4)

We may assume the first respondent ticks unimportant and the second respondent ticks important while answering the question. Therefore the ratio of the scale

values in the first case is $\frac{4}{2} = 2$ and if we use Scale B, the ratio is $\frac{3}{1} = 3$

Although the differences in the both cases is same and equals two, the ratios are different in both cases and have no meaningful interpretation. The statistical procedure applicable in this case are range, mean, standard deviation and product moment correlation. However, all the

statistical procedures applicable for ordinal and nominal scale measurements can also be used in this case.

4 Ratio Scale : Ratio scale measurements are the most powerful measurement discussed so far as they possess all the properties of the measurement scales which we have discussed. Ratios of the numbers on these scales have meaningful interpretation. They possess an unambiguous starting point. The mathematical form of the measurement is written as

$$Y=bX$$

The examples of ratio scale measurement are Income, Distance travelled from home to workplace, Height, Weight, Density etc. The statistical methods applicable for this type of measurement are geometric mean, harmonic mean, coefficient of variation etc. Also all the statistical procedures, described for the remaining type of measurements are also applicable under this case.

As mentioned in the preceding paragraphs, the methods of analysis for data depends upon the type of measurements used to measure it. The table below gives the permissible statistics to be used under different types of measurement.

Table 1: Scales Of Measurement

Scale	Permissible Statistics
Nominal	Mode
Ordinal	Median Percentile Rank Order Correlation
Interval	Mean Average deviation Standard deviation
Ratio	Geometric Mean Harmonic mean

Q4. a) In what situations Qualitative and Quantitative research is used? Discuss with suitable examples.

Ans:- Difference:-

Qualitative Research	Quantitative Research
Exploratory or diagnostic in nature - used to understand behaviour and generate hypothesis	Once hypothesis has been generated, used to test out hypothesis
No calculation of sample size possible - size of sample depends upon time available to conduct research, cost, variation in the population.	Generally a probabilistic approach is used to calculate sample size, using the sample size formula.
Sample selected is such that it represents different sections of the population	Random selection of respondents to be part of research work - may or may not represent different population segments, depending upon the sampling method utilized.
It is dangerous to generalize conclusions for the entire population.	Conclusions are generalized to the universe, of which the sample purports to be representative.

The situation where Qualitative and Quantitative research two methods are used by the researcher are:-

When to use various qualitative data collection techniques

Data collection technique	Situation
Observation	<ul style="list-style-type: none"> • When the unit of analysis is individual or a group. • When verification is needed. • Anytime and in any situation where researchers want to understand first-hand phenomena under study.
In depth Interviews/ Key informant interviews	<ul style="list-style-type: none"> • At the beginning of the research as a stepping stone to FGDs. • When preliminary knowledge on a particular issue is needed. • When research interests are being defined. • When individuals or social settings are difficult to access. • To understand subjective experiences. • Where subject matter may be sensitive and people will not speak in FGD settings.
Focus Group Discussions	<ul style="list-style-type: none"> • When a single subject is being explored in depth. • When enough is known about the subject to develop a topic guide for discussion. • When the subject matter is not sensitive so that people will not mind talking in a group. • Quick results are needed but the research project has limited funding. • Acceptable number of people can be assembled to participate in a discussion group.

Data collection tools: Case of the NIGRAAN project

Data collection tools enable a systematic collection of data about participants in any given study. The exact tool employed depends on the objective of the study. Due to the potentially complex nature of implementation research (IR), mixed methods – and hence different data collection tools – are often used as in the NIGRAAN project in rural Pakistan. The project was conducted by the department of community health sciences of the Aga Khan University (AKU) (Karachi) in collaboration with the Sindh Provincial Department of Health. Nigraan is an Urdu word meaning ‘supervisor’. The two-year IR project sought to identify ways the structured and supportive supervision of lady health workers (LHWs) by lady health supervisors (LHSs) could be strengthened, and to improve community case management of pneumonia and diarrhoea in children under five years of age in Badin district, in Sindh. The study was conducted in three sequential phases. The study participants included LHWs, LHSs, community caregivers of children under the age of five and policy-makers. Quantitative data was collected using structured questionnaires, a knowledge assessment questionnaire and a skill assessment questionnaire (Table 1), while qualitative data was collected using in-depth interviews (IDs), focus group discussions (FGDs) and narrative interviews (Table 2).

Table 1. Quantitative data collection tools

Tool	Study participants	Purpose of the tool
Household survey questionnaires	Primary caregivers	To record socio-demographic information, caregiver practices regarding diarrhoea and pneumonia of the population under study, as well as to document the morbidity due to diarrhoea and pneumonia.
Knowledge assessment questionnaires	LHSs and LHWs	To assess the theoretical understanding and knowledge of LHSs and LHWs regarding community case management of diarrhoea and pneumonia.
Skills assessment scorecard ‘A’	LHSs and LHWs	To assess the practical/clinical skills of LHSs and LHWs regarding community case management of diarrhoea and pneumonia.
Skills assessment scorecard ‘B’	LHSs and LHWs	

Table 2. Qualitative data collection tools

Tool	Study participants	Purpose of the tool
Narrative interviews	Community caregivers	Explore caregiving practices and decision making for childhood diarrhoea and pneumonia.
FGDs and IDs	LHSs, LHWs	To record HWs’ perspectives, knowledge and skills regarding community case management of childhood diarrhoea and pneumonia in rural Pakistan.
IDs	Policy-makers	Establish their opinions on the causes of the observed structural gaps.

1. Individual 'Depth' or 'Intensive' Interviews

The in-depth interviews could be classified as:

- Non-directive interview
- Semi-structured or focussed interview.

In a non-directive interview, the respondent is given maximum freedom to respond in a manner that he wishes to, within a reasonable limit of relevancy to the topic under discussion. However, the interviewer retains the initiative in the interview process, else the focus of the interview would be lost. Thus, with this technique, the respondent is given a chance to freely express his ideas and thoughts, which acts as an important feedback to the company regarding the company's products/service.

In a semi-structured or focussed interview, the initiative is retained by the interviewer, and the interview has to cover specific list of points, which has been decided in advance. There is also a tighter control over the interview, in order to maximise data collection and also collect data relevant to the topic under consideration. The interviewer also has determined as to which questions are to be asked. The best example to highlight this interview process is the chat shows that take place on television. Even though the participant(s) is/are given maximum freedom with respect to his/her answers, the initiative is retained by the interviewer, and he/she has decided in advance the questions that would be asked in the course of the interview.

In-Depth interviews are appropriate in the following situations:

- 1) When detailed probing of an individual's behaviour, attitude, and needs is required.
- 2) When the subject matter is of a highly confidential nature (e.g., how do you plan your investments: required for annual tax planning).
- 3) When the subject matter is an emotionally charged one or of an embarrassing nature (e.g., how do you spend when you go on a date).
- 4) When a step-by-step understanding is required of complicated decision making (e.g., how does a family plan its holiday - selection of vacation site, mode of travel and stay places, or how does a family decide when purchasing a house - which is normally a lifetime decision).
- 5) When interviews are conducted with highly qualified professionals (e.g., surgeons - on the usage/problems with various medical equipments), a normal questionnaire would not suffice for getting information, and a detailed probing is required which would come out only through an in-depth interview.
- 6) When a respondent may not be able to express his/her true feelings in a group discussion: Very often in a group discussion, a few aggressive people tend to dominate the discussion, hardly giving an opportunity to others in the group to express their views. To avoid such a situation, a researcher may decide to conduct an in-depth interview instead of a group discussion. Also, when the topic of the group discussion is of a personal nature and socially embarrassing, people in the group would tend to conform to the views of the overall group, rather than express their own individual ideas.

Limitation of the in-depth interview:

- 1) The skill of the interviewer is very critical in drawing out the respondent's true feelings.
- 2) In an interview, there is not only verbal communication, but also non-verbal communication, and the interviewer should also keep track of the respondent's voice tone, facial expression, movement of hands (gestures).
- 3) The sample size cannot be large, as conducting in-depth interviews takes a longer time.
- 4) Analysis and interpretation of data is a highly subjective process, thus generalizations to the entire population cannot be done.
- 5) In-depth interviews act as a source of generation of hypothesis, development of questionnaire for further research work.

2. focus-Group Discussion

There are broadly two ways in which a group discussion can be conducted:

Brain-Storming : In such a method, there is no moderator for the group, and the group freely expresses its ideas on the given topic. The ideas could be absolutely abstract, but then this would help in generating new product ideas and also better ways of conducting a particular business etc. In this, use is made of tape-recorder to record the group discussion, video-taping of proceedings is also done in order to record the facial expressions of the, participants, as also the intensity of their feelings.

Focussed Group: Discussion: In such a method, the group is given a topic and asked to discuss the topic. A moderator would also be involved in order to ensure that the group 'discussion remains relevant and does not go off the track. The moderator could stop the discussion between time intervals to find out what conclusions are being drawn by the group after each time interval.

USES OF QUALITATIVE RESEARCH

1. It is used in 'concept generation and evaluation' e.g., whenever company wants to develop new product, or modify existing product, it would conduct Qualitative Research among target consumers to understand new emerging consumer needs, or problems which consumer has with the existing product. Therefore, every time when one goes into the market place, one would find newer models of the same product with addition/deletion of features, new and better external appearance, better finish of the product etc.
2. It is used to define the problem areas more fully - in marketing research one normally starts with qualitative research which is validated further by quantitative research.
3. It is used to formulate hypothesis for further investigation/quantification.
4. It is used to obtain large amount of data about beliefs, attitudes, etc. as data input for developing questionnaires, attitude scales, which would be used as input for multivariate analysis studies.

5. It is also used to conduct post-research study i.e., to amplify or explain same points that emerge from a major study, without having to repeat on a large scale.

6. In some areas of marketing research --- especially understanding of consumer behaviour, a more flexible approach is required, rather than a rigid approach as provided by a structured questionnaire - hence qualitative research could be used.

7. In studies of distribution channels, sales, pricing strategies quantitative approach is most suitable, whereas in concept development, product development (needs of 4 consumer), advertising research -" qualitative approach is more suitable.

Ultimately, whether one uses a Qualitative Research or Quantitative Research approach, depends upon the objective of the research work, and the value of decisions that would be taken from the data generated by the research work.

b) Write an essay on the application areas of marketing research in India.

Ans:- The most common application areas of marketing research in India are listed in Table 5. New product decisions constitute the most frequent usage of -marketing research. The other important application areas include: estimation of market share, collection of competitive information, demand estimation, product modification decisions, measurement of customer satisfaction, product positioning, diversification and market segmentation decisions. Only about one-third of the firms reported the use of marketing research for developing advertising theme/message and arriving at pricing and customer service decisions.

The broad areas of application for marketing research are sales and market analysis, product research, advertising, business economics and corporate research, and corporate responsibility.

i) Sales and Market Analysis

a) Determination of market potential: The market potential is the total amount of a product or product group which could be sold to a market in a specified time period and under given conditions. Market potential is applicable in case of a new product, a modified version of an existing product, or an existing product to be introduced in a new geographical market.

b) Determination of market share: In case of an existing product, a company may be interested to know the percentage share of the market which their brand commands.

c) Sales forecasting: Sales forecasting is an attempt to predict the sales level at a given point in the future on the basis of the existing information. Sales forecasting is applicable to both existing products as well as new products. The sales may be calculated either in units or in value. Basically, there are two types of forecasts --- short-term and long-term. The short-term forecast takes into account seasonal variations, seasonal trends and cycles. The long-term forecast has its basis more in the growth pattern of the industry to which the product belongs and the business cycle operating in the industry.

d) Design of market segmentation studies: A market is a group of potential customers which has something in common. The common factor may be a geographical area, sex (after shave

lotion is used only by men), age (toys for children under 5, between 5-7, etc.), physical characteristic (weak eyesight, over weight), income, life-style.

Children comprise the market for toys. But in this broad category, the market can be viewed to be made up of many smaller markets or segments: one market for pre-school children, another for school-going children, one market comprised of educational toys, one for mechanical toys, one for electrical toys, one for indoor games, etc. The choice before the marketing manager is whether to cater to the broad market of toys or to only one or two of the specific market segments. MR can help answer questions such as "To what extent should the market segmentation strategy be pursued?" and "What should be the basis for segmentation?"

e) Test market: This is a controlled experiment to predict sales or profit consequences of the various marketing strategies. It refers to trying out something in a particular market before extending it on a larger scale. You may have noticed advertisements for soaps, or snack foods which sometimes carry the message 'available only in Hyderabad' or 'available only in Calcutta'. The firm selling these product is probably test marketing the product. The results of the market test provide the research data for taking a decision whether to extend the marketing to other areas or drop the idea totally. Test marketing also yields information which helps to modify the product and marketing strategy to give it a better chance for success.

Test marketing is used not only for new product but also for researching into the impact on sales of retail level promotional displays and promotional schemes such as coupons and discounts.

f) Distribution channel studies: Market research can be used to determine the most effective and profitable distribution channels for different types of products.

g) Determination of market characteristics: Research surveys can be conducted to collect information about the market characteristics which would help a new entrant plan his entry or help an existing company focus its strategy more sharply for increasing market share. Information can be collected on the number of brands competing in the market, state-of-technology prevailing in the market, geographical concentration and dispersal of customers, nature of outlets selling the products, number of such retail outlets, etc.

h) Determination of competitive information: Research can provide information on the marketing strategies used by various competing brands and the 'unique selling proposition' of each.

ii) Product Research

This can be used for:

- a) Evaluation of new product ideas
- b) Testing for new product acceptance
- c) Evaluating the need for change in product formulation

d) Testing package design in term of aesthetic appeal., protection for the product, and ability to withstand transportation and stocking ordeals.

e) Testing for product positioning. Should a new brand of tea be positioned on the basis of its fragrance and taste, or colour and strength, or price:

iii) Business Economics and Corporate Research

a) Studies of business trends to determine industries with growth potential and those facing a stagnant future.

b) Pricing studies to estimate the demand level at different prices. Such studies reveal the extent to which customers are sensitive to price changes, and provide valuable clues to the market or in assessing the impact of price increase or decrease on the sales.

c) Diversification studies: These provide information on the profitable new opportunities of business growth which a firm can consider for diversification. The diversification may be into totally new and unknown areas or into allied areas.

d) Product-mix studies: If a firm is considering diversifying into allied product areas, it may like to find out the product-mix combinations which would optimise its existing resources and provide synergy for growth. A company in the business of cooking oil would like to do research into one or more of the following products for arriving at a 'synergistic' product-mix: butter, vanaspati, ghee, spices, dehydrated foods, frozen foods, instant food mixes, custard powder, branded wheat flour and rice.

e) Plant and warehouse location studies: Research is also needed to determine the best possible location for setting up a new plant. Before arriving at a decision, a firm would need to research into factors such as, availability of raw material and labour, proximity to market place, telecommunication and transport infrastructure, financial, taxation and other incentives applicable to each location. In case of warehouse location, you would research into movement patterns of goods to different cities, high sale potential areas versus low sale potential areas, number of checks for quality needed en route the destination to final customer, benefit of conducting these checks against the cost of acquiring and maintaining a warehouse and convenient rail/road connections.

iv) Advertising Research

a) Audience measurement for advertisements appearing in different media such as newspapers, magazines, journals, radio, TV, outdoor hoardings, kiosks, bus side panels; etc. The objective of this type of research is to estimate the audience size of each media channel (e.g. press) and within that the specific media vehicle (India Today, Readers Digest, The Indian Express, etc.). Given the audience size, you would be interested in knowing its age, sex, socio-economic and cultural profile to focus your advertising strategy.

b) Determining the most cost-effective media plan: Each media channel has its unique advantages and disadvantages, and each media vehicle has its own cost structure. Research can be used to find out the best media vehicle by matching your product characteristics with the audience profiles of different media vehicles and the respective cost of advertising in these.

c) Copy testing: One approach for researching into the effectiveness of the copy is to test the following elements:

- basic themes, ideas, appeals
- headlines baseline, pictures, jingle, story sequence
- pre-testing whole advertisements in rough or finished form
- pre-testing the effect of repetition to simulate a campaign (all the above can be tested under simulated conditions)
- after the advertisements have been released, post-testing them individually in their normal media
- The other approach for conducting research is to assess the copy or the entire advertisement/campaign for the following:
 - assessing for its attention value, interest value and arousal,
 - test for communication clarity;
 - test for their effect on consumer attitudes,
 - test for their effect on purchase behaviour.

d) Determining advertising effectiveness: After the advertisements have been released, it is important to monitor their impact in terms of achieving the intended objective (s). To what extent has the advertising achieved its objective of creating brand awareness, creating corporate image, educating the customers about the product usage, and so on. The effectiveness is always determined in relation to the cost incurred.

v) Consumer Behaviour Research

- a) To determine who the customers of the product (men, women, children, working women, housewives, retired people) are and profile them in terms to their socioeconomic background, age, religion and occupation.
- b) To find out where the customers are located.
- c) To determine their motivations to purchase your brand of product.
- d) To determine their buying behaviour pattern in terms of identifying sources of information and influence, and sequence of purchase decision.
- e) To find out the post-purchase satisfaction level of customers.