Chapter No.3

OBJECTIVES, HYPOTHESES AND RESEARCH METHODOLOGY
3.1 OBJECTIVES OF STUDY:

- The research is carried out to study the nature of advertisements for sale of televisions.
- As the television advertisement industry is witnessing a rapid change through the increase in viewership, the study seeks to understand the scope for television advertisements in marketing television brands in India.
- To study the direct and indirect impact of television ads in purchase of televisions.
- To study the role of brands in selecting television advertisements as an effective medium for marketing and communication.
3.2: HYPOTHESES

Television manufacturers are promoting their sales with the help of advertisements.

H1: We seek to measure the extent and nature of influence of television advertisements on the sale of televisions of select brands. The principal hypothesis being: more television advertisement leads to positive influence on the sale of televisions.

H2: We also seek to measure how television advertisement influences the purchase of specific TV brand by customers.

H3: As the study progresses, we may undertake to study the impact of television advertisements in brand building that may result in sale of different products of the brand. Hypothesis being: More advertisements of TV products on television lead to positive influence on the income (sales) of the company.
3.3: RESEARCH DESIGN

3.3a: SECONDARY RESEARCH

The research scholar carried out three different types of research in various phases. It includes the following:

- Exploratory research
- Descriptive research
- Causal research

**Exploratory Research:** In the preliminary phase Exploratory research or Formulative research was conducted to properly define a problem or an issue to study. It helped the researcher to identify a subject to study and to determine a proper research design to investigate the problem. This method of study is instrumental to follow a certain type of data collection method. It draws definitive conclusions only with extreme caution. Given its fundamental nature, exploratory research often concludes that a perceived problem does not actually exist. The researcher relied on secondary research such as reviewing available literature and/or data, or qualitative approaches such as informal discussions with consumers, employees, management and more formal approaches through in-depth interviews to structure the research study. The Internet was used to collect various information and also wherever exchanges of information were interactive in nature. It includes various search engines and search results sent through email by services such as Google Alerts. The results of exploratory research were not useful for decision-making by themselves, but provided a significant insight into a given situation.
Social exploratory research was followed to find out how people get along in the environment under study, how they respond, and to identify any issues concerning the methodology. This preliminary study was very significant to understand and develop the synopsis of the research study. Moreover, applied research tool was followed to provide for flexibility in approaching the problem. The limitations of data and need for decision making within short period were considered and a research plan was formulated.

**Descriptive Research:** In the second phase, Descriptive research was undertaken to describe the various variables such as awareness of TV brands among customers, influence of advertisement in purchase decision making and attitudes of consumers who buy the product. Various books, periodicals, articles, newspapers, magazines were used to support the identification of a research topic to study.

In practice, the accumulation of evidence for or against any particular theory involves planned research designs for the collection of empirical data, and academic rigor plays a large part of judging the merits of research design.

**Causal research:** Causal research was used to test hypotheses about cause-and-effect relationships. The objective was to determine whether the variable ‘television advertisement’ was causing a certain behavior in purchase decision making or preference for a brand. In order to determine causality, it was important to hold this variable that is assumed to cause the change in the other variables such as sales, ownership, brand preference
constant and then measure the changes in these variables. The researcher admits that this type of research is very complex and the researcher can never be completely certain that there are not other factors influencing the causal relationship, especially when dealing with people’s attitudes and motivations. There are often much deeper psychological considerations, that even the respondent may not be aware of.

**Secondary research** is also referred to as desk research. It involves the summary, collation and/or synthesis of existing research rather than primary research, where data is collected from, for example, research subjects or respondents. As this method is widely used in market research, the researcher collected various information from already available sources. The principal methodology in secondary research is the systematic review, using analytical and statistical techniques. Researcher has used the primary research of others typically in the form of research publications and reports. In this context, secondary research is taken to include the reuse by a second party of any data collected by a first party or parties. It is in contrast to fieldwork. Sometimes secondary research is required in the preliminary stages of research to determine what is known already and what new data are required, or to inform research design. At other times, it may be the only research technique used. A key performance area in secondary research is the full citation of original sources, usually in the form of a complete listing or annotated listing. It can also include previous research reports and journal content, government and NGO statistics. Secondary sources of information are records or accounts prepared by someone other than the person, or persons, who participated in or observed an event. Secondary resources can be very useful in giving a researcher a
grasp on a subject and may provide extensive bibliographic information for delving further into a research topic.

3.3b: PRIMARY RESEARCH

Primary research was carried out to collect original data. It was conducted after the researcher has gained some insight into the issue by collecting secondary data. This can be through numerous forms, and for this research study questionnaires, direct observation and interview, and telephone interviews were used as tools to gather reliable and original information from the respondents. Primary research for data collection has both advantages and disadvantages. The researcher was able to address specific research issues as he controlled the research design to fit to the needs and requirements. It not only enabled the marketer to focus on specific subjects but also powered the researcher to have a higher control over how the information is collected. Taking this into account, the researcher could decide on requirements such as size of project, timeframe and goal. But compared to secondary research, primary data collection was very expensive. Costs were incurred on travelling to meet the respondents, printing the questionnaires and to access paid data, information and research articles. In order to keep the research of high quality, primary data collection required the development and execution of a research plan. It took longer to undertake primary research than to acquire secondary data. The researcher also found that though some research projects, while potentially offering information that could prove quite valuable, was not within the reach of research scholar. Another limitation was the low
response rate as some respondents were busy with their work and the research need to be completed before it may be out of date.

**Empirical research** was undertaken to gain knowledge by means of direct and indirect observation or experience. Empirical evidence (the record of one's direct observations or experiences) can be analyzed quantitatively or qualitatively. Through quantifying the evidence or making sense of it in qualitative form, the researcher is able to answer empirical questions, which are clearly defined and answerable with the evidence collected (usually called data). Research design was suited to the field under study and by the question being used for investigation. The researcher combined qualitative and quantitative forms of analysis to better answer questions which cannot be studied in laboratory settings, particularly in the social sciences and in education. In certain cases, quantitative research began with a research question which was tested through experimentation in a lab. Since the researcher had a certain theory regarding the topic under investigation some statements and hypothesis were based on those theories. From these hypotheses predictions about specific events were derived. These predictions were tested with a suitable experiment. Depending on the outcomes of the experiment, the theory on which the hypotheses and predictions were based is supported beyond doubt. Empirical research was followed as it throws more light to knowledge in philosophy and adheres to the principle that knowledge arises from experience and evidence gathered specifically using the senses. In scientific use the term empirical refers to the gathering of data using only evidence that is observable by the senses or in some cases using calibrated scientific instruments. It is dependent on observable data to formulate and test hypothesis and come to conclusions.
The researcher with due diligence attempts to describe accurately the interaction between the instrument (or the human senses) and the entity being observed. Through this primary research study the report is valuable as it proves that this study has not taken place before and the results are new. In empirical research evidence appears the same regardless of the observer and is not subjective, depending on the observer. The use of empirical evidence negates any effect of personal (i.e., subjective) experience. Ideally, primary research yields empirical evidence, which can then be analyzed for statistical significance or reported in its raw form.

3.3.1: THE APPROACH

For secondary data: In this research study, primary data and secondary data have been used for analysis, inferences and conclusions. It includes the responses from media houses, advertising agencies and consumer durable customers. The researcher gathered secondary data for purposes other than the completion of this research project. A variety of secondary information sources was used by the researcher for gathering data on an industry, different players in that industry, potential users, market share and data on ad campaigns. This was used to gain initial insight into the research problem. The source for secondary data was external to the industry under study. External secondary data is obtained from outside sources. The two major advantages of using secondary data in market research are time and cost savings. Secondary research process was completed rapidly in 3 to 4 months. There was difficulty in sourcing secondary information pertinent to my research topic in some cases it was not available, or was only available in insufficient quantities. There was challenge in converting some of the data to a format required by the researcher. The secondary data were
collected prior to conducting primary research so that it provides a useful background and will identify key questions and issues that will need to be addressed by the primary research. Sales and marketing reports of companies under study were used along with Accounting and financial records. Accounting records were useful to evaluate the success of various advertising campaigns launched by different brands. Other sources of secondary data include statistical and research information published by Government, Statistics agencies, Trade associations, General business publications, Magazine and newspaper articles, Annual reports, Academic publications, Library sources, Computerized bibliographies and Syndicated services.

Data were collected from TAM India (a joint venture of TAM and AC Nielsen group) which was a critical source to understand the television ad spends of TV brands.

**For primary data:** Primary first hand information was collected from customers of various TV brands, Media Planners and Media Buyers of various Advertising agencies in Mumbai and Chennai. (The identity of these respondents and their company are kept confidential in the best interest of the organizations they represent). These Primary sources provide the 'raw data' which was used to test the working hypothesis and then as evidence to support the claim of the researcher. The method used to collect primary data was field research. Other methods used were historical research and analysis on existing statistics from authentic sources.
3.3.2: METHODOLOGY

The data needed for a social science research may be broadly classified into (a) Data pertaining to human beings, (b) Data relating to organisations, and (c) Data pertaining to territorial areas.

Personal data or data related to human beings consist of Demographic and socio-economic characteristics of individuals like age, sex, race, social class, religion, marital status, education, occupation, income, family size, location of the household, life style, etc. and Behavioural variables like attitudes, opinions, awareness, knowledge, practice, intentions, etc. The Researcher had gathered personal data from consumers to understand the influence of advertisement, recall of advertisements, preferences of television channels and television brands (Consumer durables). Organisational data consist of data relating to an organisation’s origin, ownership, objectives, resources, functions, performance and growth. In this research study data pertaining to advertisement campaigns of select companies were used for analysis.

These data serve as the bases for analysis. Without an analysis of factual data, no specific inferences can be drawn on the questions under study. Inferences based on imagination or guesswork cannot provide correct answers to research questions. The relevance, adequacy and reliability of data determine the quality of the findings of a study. Data form the basis for testing the hypotheses formulated in this research Study which provides the facts and figures required for constructing measurement scales and tables, and these are analysed with statistical techniques. Inferences on the
results of statistical analysis and tests of significance have provided
directions and answers to research questions. Thus the scientific process of
measurement, analysis, testing and inferences depends on the availability
of relevant data and their accuracy. Hence the importance of data for any
research studies.

**Methods for collecting primary data:** The researcher directly collects
primary data from their original sources. In this case, the researcher can
collect the required data precisely according to his research needs, he can
collect them when he wants them and in the form he needs them. But the
collection of Primary data is costly and time consuming. Yet, for several
types of social science research such as socio-economic surveys, social
anthropological studies of rural communities and tribal communities,
sociological studies of social problems and social institutions, marketing
research, leadership studies, opinion polls, attitudinal surveys, readership,
radio listening and T.V. viewing surveys, knowledge-awareness practice
(KAP) studies, farm management studies, business management studies,
etc., required data are not available from secondary sources and they have
to be directly gathered from the primary sources. In all cases where the
available data are inappropriate, inadequate or obsolete, primary data have
to be gathered. There are various methods of data collection. A ‘Method’ is
different from a ‘Tool’. While a method refers to the way or mode of
gathering data, a tool is an instrument used for the method. For example, a
schedule is used for interviewing. The important methods are (a)
observation, (b) interviewing, (c) mail survey, (d) experimentation, (e)
simulation, and (f) projective technique.
Observation involves gathering of data relating to the selected research by viewing and/or listening. Interviewing is one of the major methods of data collection. It may be defined as two-way systematic conversation between an investigator and an informant, initiated for obtaining information relevant to as a specific study. It involves not only conversation, but also learning from the respondents’ gestures, facial expressions and pauses, and his environment. Interviewing requires face-to-face contact or contact over telephone and calls for interviewing skills. It is done by using a structured schedule or an unstructured guide. Mailing is used for collecting data by getting questionnaires completed by respondents. Experimentation involves a study of independent variables under controlled conditions. Experiment may be conducted in a laboratory or in field in a natural setting. Simulation involves creation of an artificial situation similar to the actual life situation. Projective methods aim at drawing inferences on the characteristics of respondents by presenting to them stimuli. Each method has its advantages and disadvantages.

In this research study, primary data being first-hand information were collected through questionnaires, personal interview and as well as through e-mails.

**Methods for collecting Secondary data:** Secondary information contains data that have been collected and compiled for other purposes. The secondary sources consist of readily available compendia and already compiled statistical statements and reports whose data are used by the researcher for his studies. e.g., census reports, annual reports and financial statements of companies, Statistical statements, Reports of Government
Departments, Annual Reports, Trade and Financial Journals, newspapers, etc. Secondary sources consist of not only published records and reports, but also unpublished records. These data that is collected from the primary sources are used in the current research study. Collecting secondary data often takes considerably less time than collecting primary data. It is thus possible to gather more data this way. Some of the ways used for collecting secondary data are Books, Records, Newspapers, Internet articles, Research articles by other researchers (journals) and Company websites.

3.3.3: SAMPLING AND STATISTICAL TOOLS

**Sampling:** Is simply the process of learning about the population on the basis of a sample drawn from it.

**Process of Sampling**

1. Selecting the sample
2. Collecting the information and,
3. Making an inference about the populations

**Importance of sampling in Social Research**

1. A large number of units can be studied.
2. It saves a lot of time, energy and money
3. Homogeneous universe sampling is very useful.
4. Intensive study is possible.
5. When the data are unlimited – highly useful.
6. When cent per cent accuracy is not required.
7. It makes easier for tabulation and analysis.
Size of the sample

The size depends upon:

1. The Nature of the universe – homogenous/ heterogeneous.
2. Nature of the study i.e., intensive/extensive.
3. Availability of finance, time and personnel.
4. Standard of accuracy.
5. Size of the schedule/questionnaire.
6. Nature of the cases to be contacted – geographically scattered.
7. Type of sampling used.

The researcher has used a sample size of 30 advertising professionals (media planners and media buyers), and 300 television customers from the city of Pune for analysis. The brands selected on basis of market share for research purpose are

- Videocon
- LG
- Onida
- Philips
- Samsung

Theory of sampling based on Two ‘LAWS’

1. Law of ‘Statistical Regularity’, and
2. Law of ‘Inertia of Large Numbers’

If a sample is taken at random from a population it is likely to possess almost the same characteristics as that of the population. Other things being
equal, larger the size of the sample, more accurate the results are likely to be.

A. Random Sampling Method
1. Simple Random Sampling: In which each and every item of the population is given an equal chance of being included in the sample.
2. Stratified Sampling: The population be divided into homogenous groups called strata’s, then a sample may be drawn from each group by simple random method, and the resulting sample is called Stratified Random Sampling.
3. Systematic Sampling: Used in those cases where a complete list of the population from which sampling is to be drawn is available. The method is to select every k\(^{th}\) item from the list where ‘k’ refers to the sampling interval.

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N \\
k = \frac{N}{n}
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The starting point between the first and the k\(^{th}\) items is selected at random.
4. Multi-stage Sampling/Cluster: Refers to a sampling procedure, which is carried out in several sages. The material is regarded as made up of number of first stage sampling units, each of which is made of number of second stage units, etc.
B. Non-Random Sampling

Judgement Sampling: The choice of the sample items depends exclusively on the discretion of the investigator. The investigator exercises his judgement in the choice of the sample items.

1. Quota Sampling: Quotas are set up according to given criteria but within the quotas the selection of sample items depends on personal judgement.

2. Convenience Sampling: Also called the chunk, a chunk is a fraction of the population taken for investigations because of its convenient availability.

Advantages of Sampling

1. Saving of time
2. Saving of Money
3. Detailed study
4. More reliable
5. The destructive nature of certain tests

Disadvantages of Sampling

1. Some times inaccurate and misleading/ biased
2. Selection of completely representative sample
3. If too small or too heterogeneous – impossible to draw representative sample.

The adequacy of samples

Adequacy of good sampling is one of the requirements of good sampling. A sample not only needs to be representative, it needs also to be adequate.
A sample is adequate when it is of sufficient size to allow confidence in the stability of its characteristics. This in turn requires a measure of sampling error. So, the arithmetic mean, standard deviation and standard error are to be calculated. Normally, the probability proportionate to size of population is worked out to determine the sample size.

**Statistical tools:** The statistical tools used in this research study include percentage analysis, correlation coefficient, Test of significance of coefficient correlation, Analysis of Variance (ANOVA), Chi-square test: goodness of fit, Chi-square test: independence of attributes.
3.4: SCOPE OF STUDY

The purpose of this research is to analyse the impact of television advertisements on the sale of televisions and on customer decision making in purchasing a television brand. The study is descriptive in nature. It focuses not only on the differences in the relationship of advertisements to sale of a product but also on the long term impact of the parent brand under study. It also aims to explain and examine the customer preferences for television advertisements that can be observed, in order to study the interaction between brand, advertisements and the consumer. The results of the study may well be expandable to cover a wide range of products and media vehicles. The research study may point the way to further research and theorization on a more national scale, and a more predictive and descriptive model for advertising in different television channels. Therefore the present study will be helpful to researchers as well as all the concerned stakeholders.