CMR
INSTITUTE OF
TECHNOLOGY

Internal Assesment Test - I

Sub:	Research Methods							Code:	17MBA23
Date:	23.03.2018	Duration:	90 mins	Max Marks:	40	Sem:	II	Branch:	MBA
Answer Key									

1. (a) The applications of marketing research

- To provide information to decision makers in the marketing department of an organization
- Types of decisions – 1. Strategic and 2. Tactical
- Strategic Decisions- Related to Segmentation of the Market, Target Market Selection, and Positioning of the Product
- Tactical decisions- Related to the 4 Ps of marketing – Product, Pricing, Promotion and Place.
- Related to the 3 Ps of marketing – People, Process and Physical distribution.

(b) List the differences between qualitative and quantitative research

- Qualitative research
- An unstructured, exploratory research methodology based on small samples that provide insights and understanding of the problem setting.
- Quantitative research
- A research methodology that seeks to quantify the data and typically applies some form of statistical analysis

	Qualitative research	Quantitative research
Objective	To gain a qualitative understanding of the underlying reasons and motivation	To generalize the data and generalize the results from the sample to the population of the research.
Sample	Small number of non-representative cases	Large number of representative cases
Data collection	Unstructured	Structured

Data analysis	Non-Statistical	statistical
outcome	Develop an initial understanding	Recommend a final course of action

4. (c) Experimental Design

A true experimental design essentially consists of the three characteristics Manipulation, Control and Randomization. These are the methods to control the extraneous variables.

- Manipulation refers to conscious control of the independent variable by researcher through treatment to observe its effect on dependent variable of interest.
- Control refers to use of control group and controlling the effect of extraneous variable on dependent variable.
- Randomization chances means that every subject has an equal chance of being assigned to experimental or control group. Through this of systematic bias is eliminated.

In true experimental designs, researcher can randomly assign test units and treatments to an experimental group. Here, the researcher is able to eliminate the effect of extraneous variables from both experimental and control group. Randomization allows the use of statistical techniques for analysing results.

There are three types of true experimental designs.

1) Pre-test-post test control group :The experimental group is subjected to treatment X and in the control group there is no treatment applied

   The design is R O1 X O2

   R O3 O4

Pre test measurements O1 and O3 are taken in experimental and control group at the same time. Similarly post test measurements O2 and O4 are taken at the same time. All extraneous variables act equally because of randomization.

The treatment effect is given by (O2-O1)-(O4-O3)

2) Post test only control group design: Here, the test units in both experimental and control group are taken at random. The experimental group is subjected to treatment X and post treatment effects on both groups are take at the same time. The design is

   R X O1

   R O2

   Experimental group will have both treatment effect and extraneous factors effect where as control group will have only extraneous factors effect.

The treatment effect is given by (O1-O2)

3) Solomon four group design: In this design the test units are divided into 4 groups. 1st experimental group and 1st control group are subjected to pre test and post test measurements where as 2nd test group and control group are not subjected to pre test measurements. This method removes even interaction effect also. The design is

   R O1 X O2

   R O3 O4

R X O5
R O6

2. (a) Describe hypothesis? Should every research have a hypothesis?

- Any assumption that the researcher makes on the probable direction of the results that might be obtained on completion of the research process is termed as hypothesis.
- The research study need not always begin with a hypothesis. Sometimes, the task of the study might be to collect rich, in-depth and detailed data that might lead to the end of the study. Some indicative propositions that can be constructed as hypothesis to be tested in subsequent research. This is most often the case with descriptive research".
- Two types of hypothesis- Null hypothesis and alternate hypothesis

(b) Define Research?

- Search for knowledge
- It is an art of scientific investigation.
- It is a systematic design, collection analysis and the reporting the findings and solutions for the problems of an organization.

What are the characteristics of good research?

Criteria or Characteristics of a good research

- Systematic
- Logic
- Empirical
- Replicable

The features of good research can be broadly categorized as:

Clearly defined purpose: The problem should be clearly defined and sharply delineated. The statement of the decision problem should include its scope, limitations and is precise.

Specifications of areas significant to research: This characteristic is comparable to developing a strategic plan before developing a tactical plan or action map for achieving an objective.

Objectivity: A good research is objective in the sense that it must answer the research questions. This necessitates the formulation of a proper hypothesis; otherwise there may be lack of congruence between the research questions and the hypothesis.

Systematic: Research should be structured and logical. A good research will satisfy the steps to be taken in orderly sequence according to a set of defined rules i.e. researcher uses scientific methods.

Empirical: Empirical means factual investigation is possible. Its validity can be checked through reliable sources and evidences. Research should be such that it can be validated i.e. it should be possible to describe, interpret and explain the phenomenon.

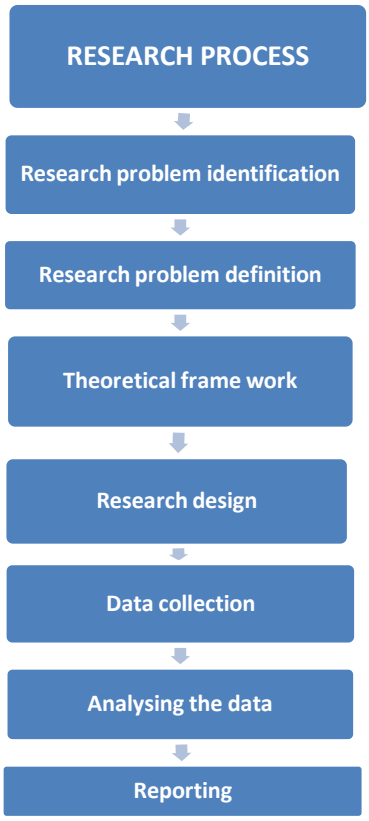
Generalisability: It refers to the feature where a study should have almost the same result by using an identical methodology for universal applicability.

Replicability: It means research is conducted can be repeated any number of times. A researcher can verify the results by repeating the study and thereby delivering a sound decision framework.

Adequate analysis: Analysis of data should be sufficiently adequate to reveal it's significance and methods of analysis used should be appropriate. The extent to which this criterion is met is a good measure of the competence of research. Data should be classified in ways that assist the researcher to reach pertinent conclusions.

Findings presented unambiguously: Generalizations that outrun the evidence on which they are based tend to leave an unfavorable impression. Such reports are not valuable to managers for business decision making. Presentation should be comprehensive, easily understood and organized. Language should be restrained, clear precise when findings are presented.

(c) Discuss the research process with a flow chart



1. **Research problem identification**: Examination of pratical probability of research is dialogue, cognitive identification of an experienced researcher in a areas.

A two step of research is as;

- Literature
- Pilot study.

2. **Research problem defining**:

The steps in the problem defining is: a) Defining hypothesis, b) Formulation of data.

3. **Theoretical frame work**: The variable should be identified by the researcher for solving the problem after defining it specifically.

4. **Research design**: The research design is a multi concentrate object. It is a blue print of the research; it helps the research to find out the method of collecting the data, Analysis of data etc.

5. **Data collection**: It is a collection of primary data and a secondary data according to the sampling plan using the appropriate data collection instruments.

6**. Analyzing of data:** The data collected in the last is made in this step where the raw data is converted into a useful process. It is converted with the help of transaction, coding, performance. It is used for verifying hypothesis and testing model.

7. **Reporting**: The last step is reporting, the information gathered in the last are reported in a written form or in an oral format.

3. (a) Explain the term 'literature Search. Give its importance.

A **literature review** is a text of a scholarly paper, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic. Or a **literature survey** represents a study of previously existing material on the topic of the report. This includes -

1. Existing theories about the topic, which are accepted universally.
2. Books written on the topic, both generic and specific.
3. Research done in the field usually in the order of oldest to latest.
4. Challenges being faced and ongoing work, if available

Its importance

- Provides an up-to-date understanding of the subject and its significance to (your) practice; identifies the methods used in previous research on the topic;
- Provides comparisons for your own research findings.
- To establish a theoretical framework for your topic / subject area.
- Define key terms, definitions and terminology.
- Identify studies, models, case studies etc supporting your topic
- To ensure you have a thorough understanding of the topic.
- To identify potential areas for research.
- To identify similar work done within the area.

.

(b) Distinguish between exploratory and Descriptive research with an example each.

Exploratory research:

- One type of research design, which has as its primary objective of the provision of insights into, and comprehension of the problem situation confronting the researches.
- Exploratory research is used to define problem more precisely, identify relevant courses of action or gain additional insights before an approach can be developed.
- It is regarded as tentative or as input to further research.

Descriptive research:

- A type of conclusive research that has its major objective the description of something – usually market characteristics or functions.
- It specifies of who, what, when, where, why and way (6 W's)of the research.

It is preplanned, structured and the information needed is clearly defined.

(c) Distinguish between scientific method and non- scientific method. What difficulties do you face in applying scientific methods in marketing?

Scientific enquiry

Scientific enquiry is a mental activity both speculative and critical in which analytical activity dominates.

Scientific knowledge

Scientific knowledge is the knowledge gained systematically through a cycle of process: observation, perception, language, thought, concepts, classifications, definition, constructs, principles, hypothesis, laws and theory and verification.

Scientific method

Scientific method is one which yields the same results when repeated by different individuals.

It consists of the following steps:

- Observation
- Formulates hypothesis
- Future Prediction
- Testing the hypothesis

Difference between scientific and unscientific method

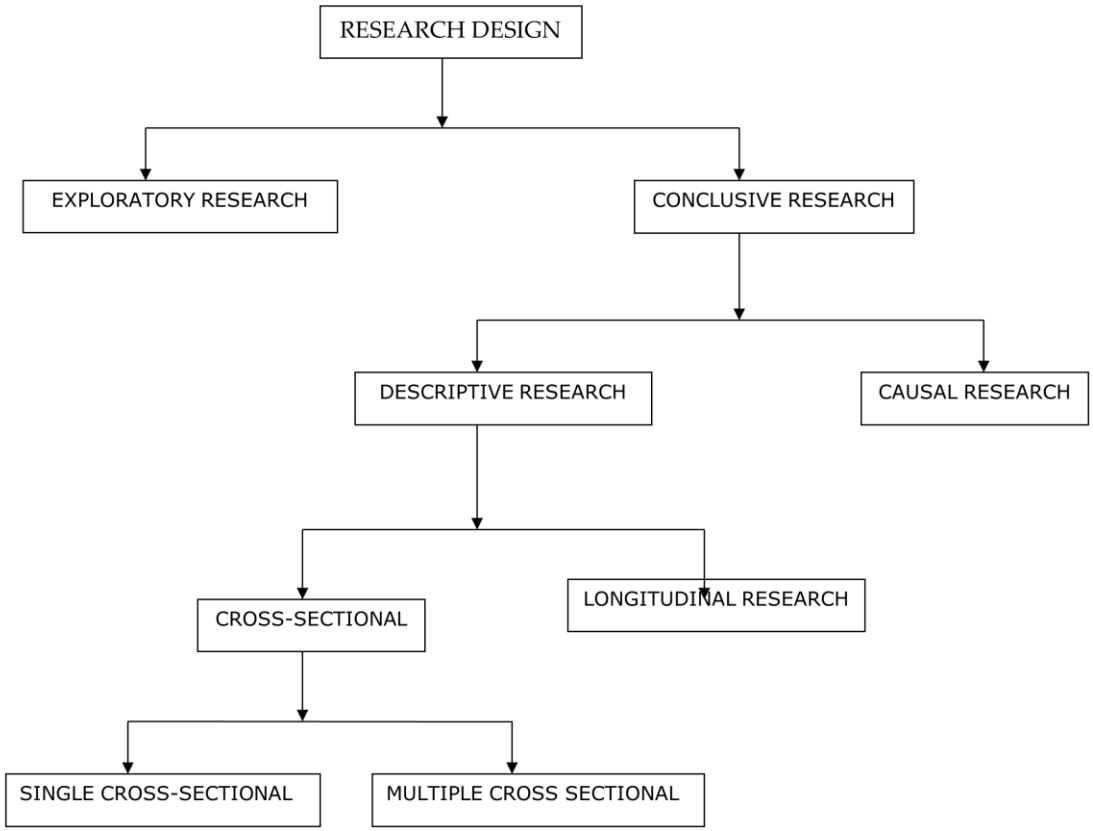
- Rationality and objectivity
- Accuracy of measurement
- Maintaining continuity in investigation

Characteristics of scientific method

Validity- is the ability of a measuring instrument to measure what it is supposed to.

Reliability – in physical sciences, the instruments used as barometer, thermometer or footruler with measure they are meant to do. The measurement can be repeated any number of times by different individuals. But the result will be the same.

4. Analyze the types and steps of Research Design



A frame work or blue print for conducting the marketing research project. It specifies the details of the procedures necessary for obtaining the information needed to structure and or solve marketing research problems.

Exploratory: Is one type of research design, which has as its primary objective of the provision of insights into, and comprehension of the problem situation confronting the researches. Exploratory research is used to define problem more precisely, identify relevant courses of action or gain additional insights before an approach can be developed. It is regarded as tentative or as input to further research.

Conclusive: Research design to assist the decision maker in determining, evaluating and selecting the best course of action to take in a given situation. It is more formal and structured, it is based on large representation of samples, and the data obtained are subjected to qualitative analysis. The findings are considered to conclusive in nature (input used for managerial decision making).

Cross sectional:

A type of research design involving the collection of information from any given sample of population elements only once.

Single cross-sectional design:

A cross sectional design in which one sample of respondents is drawn from the target population and information is obtained from this sample once.

Multiple cross sectional design:

A cross sectional design in which there are two or more samples of respondents and information from each sample is obtained only once.

Longitudinal design

A type of research design involving a fixed sample of population elements that is measured repeatedly. The sample remains the same over time thus providing a series of pictures which when viewed together portray a vivid illustration of the situation and the changes that are taking place over time.

.