

- WHAT IS RESEARCH? (**MEANING**)
- WHY RESEARCH IS CARRIED OUT? (**PURPOSE**)
- WHAT ARE THE **TYPES** OF RESEARCH?
- WHAT ARE THE **OBJECTIVES** OF RESEARCH?

- Research can be defined as

- **Search for knowledge.**
- A scientific and systematic search for pertinent (something relevant to any subject) information on a specific topic.
- **Art of scientific investigation.**
- The Advanced Learner's Dictionary of Current English lays down the Meaning of research as "**a careful investigation or inquiry especially through search for new facts in any branch of knowledge.**"
- Redman and Mory define research as a "**systematized effort to gain New knowledge.**"
- Some people consider research as a movement, **a movement from the known to the unknown.**
- According to Clifford Woody research comprises defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis.
- D. Slesinger and M. Stephenson in the Encyclopedia of Social Sciences define research as "the manipulation of things, concepts or symbols for the purpose of generalize to extend, correct or verify knowledge, whether that knowledge aids in construction of theory or in the practice of an art."

Research is, thus, an original contribution to the existing stock of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment.

In short, the search for knowledge through **objective and systematic method of finding solution to a problem is research.**

The systematic approach concerning generalization and the formulation of a theory is also research.

As such the term 'research' refers to *"the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solutions(s) towards the concerned problem or in certain generalizations for some theoretical formulation"*

We also can say that it is research, it means **RE + SEARCH**

That means **again search** something to gain something new from the old whatever is present.

So we can say that research is a continuous process or never ending process. Nothing is optimized, whatever present is search up to that time only. It may be chance of modification in that by **RESEARCH.**

○ These are various objectives of the research...

To discover answer to the question through scientific procedure is main purpose of research.

The main purpose of research is to find out something which has not been discovered yet.

Each and every research having specific purpose but these below described objectives can be possible.

- To get familiarity with new phenomenon and to search new insights into it.
- To find out accurately the characteristics of a particular individual or group or even situation.
- To determine frequency of something with which something occurs or with which it is associated.
- To test a hypothesis of a causal relationship between variables.

Motivation for the research can be obtained by following motives...

- Desire to get a research degree along with its consequential benefits;
- Desire to face the challenge in solving the unsolved problems, i.e., concern over practical problems initiates research;
- Desire to get intellectual joy of doing some creative work;
- Desire to be of service to society;
- Desire to get respectability.
- Desire to understand causal relationship.
- Social thinking and awakening.
- Curiosity about new things.
- Directives of government.

○ Various types of research are following...

- Descriptive vs. Analytical
- *Applied vs. Fundamental*
- *Quantitative vs. Qualitative*
- *Conceptual vs. Empirical*
- *Some Other Types of Research*

(1) Descriptive vs. analytical research

Descriptive research includes survey or fact finding inquiries in which researcher do not having any control over the variables. Here it is only mentioned by researcher that what has been happened and what is happening. It is also called as *Ex post facto* research. Examples include preferences of people, frequency of shopping, etc. Already available and also analyze that things to make a critical evaluation of the material.

(2) Applied vs. fundamental

Applied research is carried out to find out the solution of the present pressing problem. While fundamental research is carried out for generalization or formulation of new theory.

Fundamental research is pure or basic type of research.

Research concerning with the pure mathematics or with some natural phenomenon are called the fundamental research. In short it is "Gathering knowledge for knowledge's sake."

While applied research having basic that it is for finding solution for any social, economical or marketing problems.

(3) Quantitative vs. Qualitative

Quantitative research is carried on the basis of certain things which can be measured quantitatively. On the other hand, qualitative research is concerned with the qualitative phenomenon.

For example if we carry out research on human behavior, about what man think, why think, or that type qualitative phenomenon when used, it is called a qualitative research.

We often say about motivation research which is also one type of qualitative research. Qualitative research is very important in the behavioral science by which we can compare several people's behavior also. Through such research we can analyze the various factors which motivate people to behave in a particular manner or which make people like or dislike a particular thing.

(4) Conceptual vs. Empirical

Conceptual research is that related to **some abstract idea(s) or theory**. It is generally used by philosophers and thinkers to develop new concepts or to reinterpret existing ones. On the other hand, empirical research relies on **experience or observation alone**, often without due regard for system and theory. It is data-based research, coming up with conclusions which are capable of being verified by observation or experiment. We can also call it as experimental type of research.

(5) Some other type of research

- **ONE TIME RESEARCH OR LONGITUDINAL RESEARCH**

Form the point of view of time; we can think have research either as *one-time research or longitudinal research*. In the former case the research is confined to a single time-period, whereas in the latter case the research is carried on over several time-periods.

- **FIELD-SETTING RESEARCH OR LABORATORY RESEARCH**

- **CLINICAL OR DIAGNOSTIC RESEARCH**

Such research follows case-study methods or in-depth approaches to reach the basic causal relations. Such studies usually go deep into the causes of things or events that interest us, using very small samples and very deep probing data gathering devices.

- **EXPLORATORY OR FORMALIZED RESEARCH**

The objective of exploratory research is the development of hypotheses rather than their testing, whereas formalized research studies are those with substantial structure and with specific hypotheses to be tested.

- **CONCLUSION ORIENTED OR DECISION ORIENTED**

While doing conclusion oriented research, a researcher is free to pick up a problem, redesign the enquiry as he proceeds and is prepared to conceptualize as he wishes. Decision-oriented research is always for the need of a decision maker and the researcher in this case is not free to embark upon research according to his own inclination. Operations

research is an example of decision oriented research since it is a scientific method of providing executive departments with a quantitative basis for decisions regarding operations under their control.

- HISTORICAL RESEARCH

Historical research is that which utilizes historical sources like documents, remains, etc. to study events or ideas of the past, including the philosophy of persons and groups at any remote point of time.

- Research approaches

The above description of the types of research brings to light the fact that there are two basic approaches to research, viz., ***quantitative approach*** and the ***qualitative approach***.

- The *quantitative approach* involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion.
- This approach can be further sub-classified into *inferential, experimental and simulation approaches to research*.
 - The purpose of *inferential approach* to research is to form a data base from which to infer characteristics or relationships of population.

This usually means survey research where a sample of population is studied (questioned or observed) to determine its characteristics, and it is then inferred that the population has the same characteristics.
 - Experimental approach is characterized by much greater control over the research environment and in this case some variables are manipulated to observe their effect on other variables.

- Simulation approach involves the construction of an artificial environment within which relevant information and data can be generated.

Qualitative approach to research is concerned with subjective assessment of attitudes, opinions and behaviour.

- Research in such a situation is a function of researcher's insights and impressions.
- Such an approach to research generates results either in non-quantitative form or in the form which are not subjected to rigorous quantitative analysis.
- Generally, the techniques of focus group interviews, projective techniques and depth interviews are used.

○ Significance of the research

These are the importance of the research:

- Research inculcates scientific and inductive thinking and it promotes the development of logical habits of thinking and organisation.
- The role of research in several fields of applied economics, whether related to business or to the economy as a whole, has greatly increased in modern times.
- Research provides the basis for nearly all government policies in our economic system.
- Research has its special significance in solving various operational and planning problems of business and industry. Operations research and market research, along with motivational research, are considered crucial and their results assist, in more than one way, in taking business decisions. Market research is the investigation of the structure and development of a market for the purpose of formulating efficient policies for purchasing,

production and sales. Operations research refers to the application of mathematical, logical and analytical techniques to the solution of business problems of cost minimisation or of profit maximisation or what can be termed as optimisation problems. Motivational research of determining why people behave as they do is mainly concerned with market characteristics.

- Research is equally important for social scientists in studying social relationships and in seeking answers to various social problems.
- In addition to what has been stated above, the significance of research can also be understood keeping in view the following points:
 - To those students who are to write a master's or Ph.D. thesis, research may mean a careerism or a way to attain a high position in the social structure.
 - To professionals in research methodology, research may mean a source of livelihood.
 - To philosophers and thinkers, research may mean the outlet for new ideas and insights;
 - To literary men and women, research may mean the development of new styles and creative work.
 - To analysts and intellectuals, research may mean the generalisations of new theories.
- Thus, research is the fountain of knowledge for the sake of knowledge and an important source of providing guidelines for solving different business, governmental and social problems. It is a sort of formal training which enables one to understand the new developments in one's field in a better way.

RESEARCH METHOD VERSUS RESEARCH METHODOLOGY

- *Research methods* may be understood as all those methods/techniques that are used for conduction of research.
- *Research methods or techniques**, thus, refer to the methods the researchers use in performing research operations.
- In other words, all those methods which are used by the researcher during the course of studying his research problem are termed as research methods.
- Since the object of research, particularly the applied research, is to arrive at a solution for a given problem, the available data and the unknown aspects of the problem have to be related to each other to make a solution possible.
- *At times, a distinction is also made between research techniques and research methods.
- *Research techniques* refer to the behaviour and instruments we use in performing research operations such as making observations, recording data, techniques of processing data and the like.
- *Research methods* refer to the behaviour and instruments used in selecting and constructing research technique.

Research methods can be put into the following three groups:

- In the first group we include those methods which are concerned with the collection of data. These methods will be used where the data already available are not sufficient to arrive at the required solution
- The second group consists of those statistical techniques which are used for establishing relationships between the data and the unknowns.
- The third group consists of those methods which are used to evaluate the accuracy of the results obtained.
- Research methods falling in the above stated last two groups are generally taken as the analytical tools of research.

WHILE

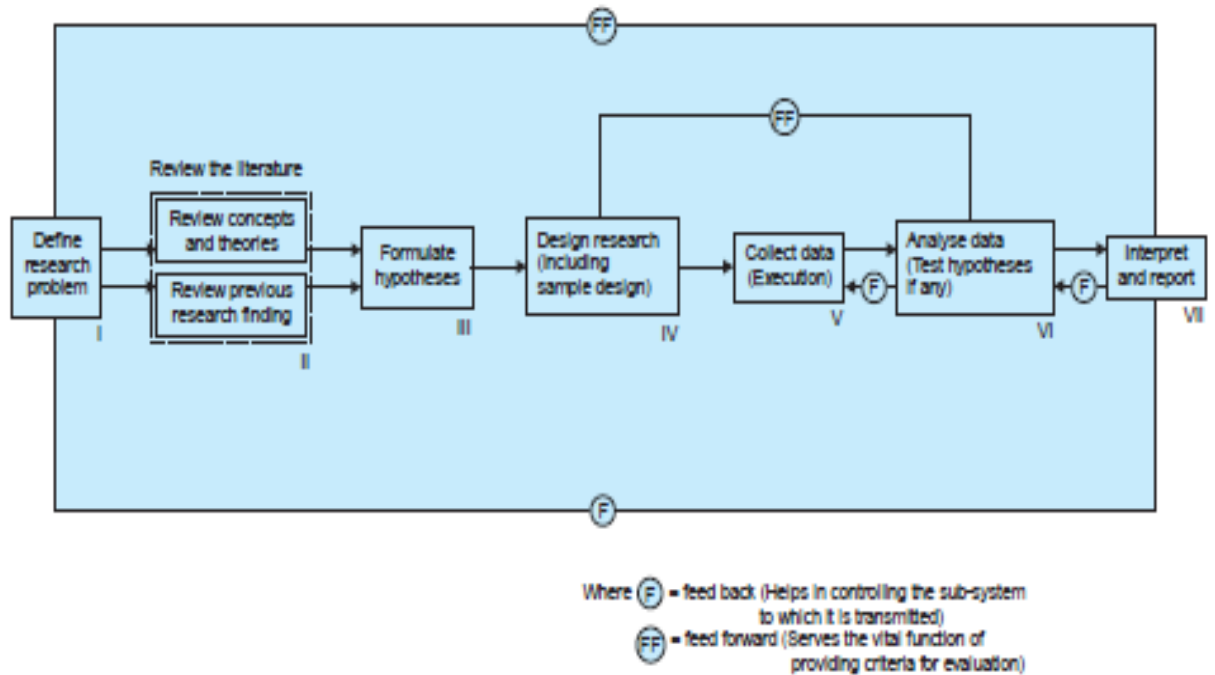
- **Research methodology** is a way to systematically solve the research problem and may be understood as a science of studying how research is done scientifically.
- It is study of various steps adopted by a researcher in his research problem along with logic behind them.
- It is necessary for the researcher to know not only the research methods/techniques but also the methodology.
- Researchers not only need to know how to develop certain indices or tests, how to calculate the mean, the mode, the median or the standard deviation or chi-square, how to apply particular research techniques, but they also need to know which of these methods or techniques, are relevant and which are not, and what would they mean and indicate and why.
- Researchers also need to understand the assumptions underlying various techniques and the criteria by which they can decide that certain techniques and procedures will be applicable to certain problems and others will not.
- All this means that it is necessary for the researcher to design his methodology for his problem as the same may differ from problem to problem.
- For example, an architect, who designs a building, has to consciously evaluate the basis of his decisions, i.e., he has to evaluate why and on what basis he selects particular size, number and location of doors, windows and ventilators, uses particular materials and not others and the like.
- Similarly, in research the scientist has to expose the research decisions to evaluation before they are implemented.
- He has to specify very clearly and precisely what decisions he selects and why he selects them so that they can be evaluated by others also.
- From what has been stated above, we can say that research methodology has many dimensions and research methods do constitute a part of the research methodology.
- The scope of research methodology is wider than that of research methods.

- Thus, when we talk of research methodology we not only talk of the research methods but also consider the logic behind the methods we use in the context of our research study and explain why we are using a particular method or technique and why we are not using others so that research results are capable of being evaluated either by the researcher himself or by others.
- Why a research study has been undertaken, how the research problem has been defined, in what way and why the hypothesis has been formulated, what data have been collected and what particular method has been adopted, why particular technique of analysing data has been used and a host of similar other questions are usually answered when we talk of research methodology concerning a research problem or study.

○ RESEARCH PROCESS

- Research process consists of series of actions or steps necessary to effectively carry out research and the desired sequencing of these steps. The chart shown in Figure well illustrates a research process.

RESEARCH PROCESS IN FLOW CHART



- The chart indicates that the research process consists of a number of closely related activities.
- But such activities overlap continuously rather than following a strictly prescribed sequence.
- At times, the first step determines the nature of the last step to be undertaken.
- If subsequent procedures have not been taken into account in the early stages, serious difficulties may arise which may even prevent the completion of the study.
- One should remember that the various steps involved in a research process are not mutually exclusive; nor they are separate and distinct.

- They do not necessarily follow each other in any specific order and the researcher has to be constantly anticipating at each step in the research process the requirements of the subsequent steps.

However, the following order concerning various steps provides a useful procedural guideline regarding the research process:

- (1) formulating the research problem;
- (2) extensive literature survey;
- (3) developing the hypothesis;
- (4) preparing the research design;
- (5) determining sample design;
- (6) collecting the data;
- (7) execution of the project;
- (8) analysis of data;
- (9) hypothesis testing;
- (10) generalisations and interpretation,
- (11) preparation of the report or presentation of the results, i.e., formal write-up of conclusions reached.