

# TYPES OF RESEARCH

# What is Research:

## Definition

- *Research is defined as a careful consideration of study regarding a particular concern or a problem using scientific methods.*
- According to the American sociologist Earl Robert Babbie, “Research is a systematic inquiry to describe, explain, predict and control the observed phenomenon.

- Research involves **inductive** and **deductive methods.**”
- Inductive research methods are **used to analyze the observed phenomenon** whereas, deductive methods are used to verify the observed phenomenon.
- Inductive approaches are associated with qualitative research and **deductive methods** are more commonly associated with **quantitative research.**

# 'Research Methodology'

- 'Research Methodology' is a compound of two words, research and methodology, indicating the mode of doing research. 'Research' is of French origin (from Recerche) and means a "careful search or investigation, systematic investigation towards increasing the sum of knowledge".

# HISTORICAL RESEARCH.

- ‘History is digging into past in order to re-enact past history’. Historical research is gaining round rapidly among the historians, scholars and archaeologists.
- They are devoting their time and energy to enrich our knowledge about the past history with the help of their researches.
- As history is both a science and an art, the method to be used in writing history would be different from those of all other disciplines.
- As complete objectivity is impossible to achieve, the aim should be to reconstruct the past as nearly as it really happened.

# What is Research

- Every thing written by a historian or a scholar does not fall in the category of research.
- Research may be defined as an activity which aims at bringing to light something new. It adds to the existing knowledge through a systematic study or investigation of a particular subject.
- A prominent scholar B. Sheikh Ali has written, “Research is the activity undertaken to bring out something new, to extend the horizon of knowledge and to contribute some original idea. It is an attempt to make a diligent and systematic inquiry or investigation into a subject, in order to discover facts or revise the known facts or put the facts into theories”.

- Historical research can constitute either all or any of the three important activities given below:
  - 1. Collection of New data
  - 2. Fresh interpretation of the data already known and
  - 3. Subordination of the data to a principle

- OBJECTIVES OF RESEARCH
- The purpose of research is to discover answers to questions through the application of scientific
- procedures. The main aim of research is to find out the truth which is hidden and which has not been
- discovered as yet. Though each research study has its own specific purpose, we may think of
- research objectives as falling into a number of following broad groupings:

- 1. To gain familiarity with a phenomenon or to achieve new insights into it (studies with this object in view are termed as *exploratory* or *formulative* research studies);
- 2. To portray accurately the characteristics of a particular individual, situation or a group (studies with this object in view are known as *descriptive* research studies);
- 3. To determine the frequency with which something occurs or with which it is associated with something else (studies with this object in view are known as *diagnostic* research studies);
- 4. To test a hypothesis of a causal relationship between variables (such studies are known as *hypothesis-testing* research studies).

- *1.Descriptive vs. Analytical*
- *2.Applied vs. Fundamental*
- *3.Quantitative vs. Qualitative*
- *4.Conceptual vs. Empirical*
- *5.one-time research or longitudinal research*
- *6.field-setting research or laboratory research or simulation research*

- *7. clinical or diagnostic research*
- *8. exploratory*
- *9. Historical research*
- *10. conclusion-oriented and decision-oriented.*
- *11. Decision-oriented research*

# 1. Descriptive vs. Analytical

- *Descriptive research* includes surveys and fact-finding enquiries of different kinds.
- The major purpose of descriptive research is **description of the state of affairs as it exists at present**.
- In social science and business research we quite often use the term *Ex post facto research* for descriptive research studies.
- The **main characteristic** of this method is that the **researcher has no control over the variables**; he can only report **what has happened or what is happening**.

- Most *ex post facto research* projects are used for descriptive studies in which the researcher seeks to measure such items as,
  - for example, frequency of shopping, preferences of people, or similar data.
  - *Ex post facto studies* also include **attempts by researchers to discover causes** even when they cannot control the variables.

- The **methods** of research utilized in descriptive research are **survey methods of all kinds**, including **comparative** and **correlational methods**.
- In *analytical research*, on the other hand, the researcher has to **use facts or information already available**, and analyze these to make a **critical evaluation** of the material.

## *2. Applied vs. Fundamental*

- Research can either **be applied** (or action) research or **fundamental** (to basic or pure) research.
- *Applied research* aims **at finding a solution for an immediate problem facing a society or an industrial/business organisation,** whereas *fundamental research* is mainly **concerned with generalisations and with the formulation of a theory.**

- “Gathering knowledge for knowledge’s sake is termed ‘pure’ or ‘basic’ research.”
- Research concerning some natural phenomenon or relating to pure mathematics are examples of fundamental research.
- Similarly, research studies, concerning human behaviour carried on with a view to make generalisation’s about human behaviour, are also examples of fundamental research,
- but research aimed at certain conclusions (say, a solution) facing a concrete social or business problem is an example of applied research.

- Research to identify social, economic or political trends that may affect a particular institution or the copy research (research to find out whether certain communications will be read and understood) or the **marketing research or evaluation research** are examples of applied research.
- Thus, the central aim of applied research is to discover a solution for some pressing practical problem, whereas basic research is directed towards finding information that has a broad base of applications and thus, adds to the already existing organized body of scientific knowledge.

# 3. Quantitative vs. Qualitative

- Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity.
- Qualitative research, on the other hand, is concerned with qualitative phenomenon, i.e., phenomena relating to or involving quality or kind.
- For instance, when we are interested in investigating the reasons for human behaviour (i.e., why people think or do certain things), we quite often talk of 'Motivation Research', an important type of qualitative research.

- This type of research aims at discovering the underlying **motives and desires**, using in **depth interviews** for the purpose.
- Other techniques of such research are word association tests, sentence completion tests, story completion tests and similar other projective techniques.
- Attitude or opinion research i.e., research designed to find out how people feel or what they think about a particular subject or institution is also qualitative research.

- **Qualitative research** is specially important in the behavioural sciences where **the aim is to discover the underlying motives of human behaviour**.
- Through such research we can analyse the various factors which motivate people to behave in a particular manner or which make people like or dislike a particular thing.
- To apply qualitative research in practice is relatively a difficult job and therefore, while doing such research, **one should seek guidance from experimental psychologists**.

# 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.*
- 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. In such a research it is necessary to get at facts firsthand, at their source, and actively to go about doing certain things to stimulate the production of desired information.

- In such a research, the researcher must first provide himself with a working hypothesis or guess as to the probable results.
- He then works to get enough facts (data) to prove or disprove his hypothesis.
- He then sets up experimental designs which he thinks will manipulate the persons or the materials concerned so as to bring forth the desired information.

- such research is thus characterised by the experimenter's control over the variables under study and his deliberate manipulation of one of them to study its effects.
- **Empirical research** is appropriate when proof is sought that certain variables affect other variables in some way.
- Evidence gathered through experiments or empirical studies is today **considered to be the most powerful support possible for a given hypothesis.**

# *Some Other Types of Research*

- All other types of research are variations of one or more of the above stated approaches, based on either the purpose of research, or the time required to accomplish research, on the environment in which research is done, or on the basis of some other similar factor

# *5. one-time research or longitudinal research*

- . Form the point of view of time, we can think of 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.

# *6. field-setting research or laboratory research or simulation research*

- Research can be *field-setting research or laboratory research or simulation research*, depending upon the environment in which it is to be carried out.

# 7. *clinical or diagnostic research*

- Research can as well be understood as *clinical or diagnostic research*. Such research follow 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.

# 8. *exploratory*

- The research may be *exploratory* or it may be formalized. 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.

# 9. *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.

# *10.conclusion-oriented* and decision-oriented.

- Research can also be classified as *conclusion-oriented* and 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.

# 11. Decision-oriented research

- 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.