

Research Methodology

Gurinder Pal Singh Brar

Research Scholar
gurinderbrar99@gmail.com

Dr. V.K Jain

Professor
Sliet Longowal Punjab

Dr. Amanpreet Singh

Associate Professor
Sliet Longowal Punjab

Abstract: *Research means to observe the phenomena again and again from different dimensions. In other words we can say subjects require us to go beyond our personal knowledge and experience. The research is undertaken to explore an idea, probe an issue, solve a problem, and to make an argument that compels us to turn to outside help. Research is a process of collecting, analyzing and interpreting information to answer questions. But to qualify as research, the process must have certain characteristics: it must, as far as possible, be controlled, rigorous, systematic, valid and verifiable, empirical and critical. The research will dictate the kinds of research methodologies that can be used to underpin work and methods used in order to collect data. The term epistemology, what is known to be true, as opposed to doxology, what is believed to be true, encompasses the various philosophies of research approach. The path to finding answers to your research questions constitutes research methodology. At each operational step in the research process you are required to choose from a multiplicity of methods, procedures and models of research methodology which will help you to best achieve your objectives. A large number of research methodologies have been identified to find the conditions under which a certain phenomenon occurs and the conditions under which it does not occur in what might appear to be similar circumstances. Each method is particularly appropriate for certain sources of data yielding information of the kind and in the form that would be most effectively used. The measurement of what is identified adds an important dimension to description; not only what but how much is revealed. Many of the tools of research have been designed to yield quantitative measures. Others yield description that may be refined by counts of frequency of appearance. This qualification of data is an essential part of research. Some important tools of research which are most frequently used in behavioural science research have been discussed here within this paper. Reviewing literature can be time-consuming and frustrating, but is also rewarding as it brings clarity and focus to research problem and improves methodology which will help one to opt for the best method for the research. The intention here is to introduce readers to different research traditions, with the advice that 'fitness for purpose' must be the guiding principle: different research paradigms for different research purposes. The main objective of this work is to contribute to the development of research methods for the better future by building a concrete base with the help of reviewing literature in the concerned field.*

Keywords: *Reliability, Scientific, objectivity, Empirical, Generalization.*

1. INTRODUCTION

When you say that you are undertaking a research study to find answers to a question, you are implying that the process;

1. Is being undertaken within a framework of a set of philosophies (approaches);
2. Uses procedures, methods and techniques that have been tested for their validity and reliability;
3. Is designed to be unbiased and objective.

A philosophy means approaches e.g. qualitative, quantitative and the academic discipline in which you have been trained. Validity means that correct procedures have been applied to find answers to a question. Reliability refers to the quality of a measurement procedure that provides repeatability and accuracy.

Unbiased and objective means that you have taken each step in an unbiased manner and drawn each conclusion to the best of your ability and without introducing your own vested interest.

The word research is composed of two syllables, re and search. re is a prefix meaning again, anew or over again search is a verb meaning to examine closely and carefully, to test and try, or to probe. Together they form a noun describing a careful, systematic, patient study and investigation in some field of knowledge, undertaken to establish facts or principles. Research is a structured enquiry that utilizes acceptable scientific methodology to solve problems and create new knowledge that is generally applicable.

Scientific methods consist of systematic observation, classification and interpretation of data.

Although we engage in such process in our daily life, the difference between our casual day-to-day generalisation and the conclusions usually recognized as scientific method lies in the degree of formality, rigorousness, verifiability and general validity of latter.

Research is not 'neutral', but reflects a range of the researcher's personal interests, values, abilities, assumptions, aims and ambitions. In the case of your own proposed research, your own mixtures of these elements will not only determine the subject of the research, but will influence your approach to it. It is important to consider in advance what approach you to take with your research – and why.

Positivistic approaches to research are based on research methodologies commonly used in science. They are characterised by a detached approach to research that seeks out the facts or causes of any social phenomena in a systematic way. Positivistic approaches are founded on a belief that the study of human behaviour should be conducted in the same way as studies conducted in the natural sciences. Positivistic approaches seek to identify, measure and evaluate any phenomena and to provide rational explanation for it. This explanation will attempt to establish causal links and relationships between the different elements (or variables) of the subject and relate them to a particular theory or practice. There is a belief that people do respond to stimulus or forces, rules (norms) external to themselves and that these can be discovered, identified and described using rational, systematic and deductive processes. Phenomenological approaches however, approach research from the perspective that human behaviour is not as easily measured as phenomena in the natural sciences. Human motivation is shaped by factors that are not always observable, e.g. inner thought processes, so that it can become hard to generalise on, for example, motivation from observation of behaviour alone. Furthermore, people place their own meanings on events; meanings that do not always coincide with the way others have interpreted them. This perspective assumes that people will often influence events and act in unpredictable ways that upset any constructed rules or identifiable norms – they are often 'actors' on a human stage and shape their 'performance' according to a wide range of variables.

2. CHARACTERISTICS OF RESEARCH

Research is a process of collecting, analyzing and interpreting information to answer questions. But to qualify as research, the process must have certain characteristics: it must, as far as possible, be controlled, rigorous, systematic, valid and verifiable, empirical and critical.

1. Controlled

In real life there are many factors that affect an outcome. The concept of control implies that, in exploring causality in relation to two variables (factors), you set up your study in a way that minimizes the effects of other factors affecting the relationship. This can be achieved to a large extent in the physical sciences, as most of the research is done in a laboratory. However, in the social sciences (Hospitality and Tourism) it is extremely difficult as research is carried out on issues related to human beings living in society, where such controls are not possible.

2. Rigorous

You must be scrupulous in ensuring that the procedures followed to find answers to questions are relevant, appropriate and justified. Again, the degree of rigor varies markedly between the physical and social sciences and within the social sciences.

3. Systematic

This implies that the procedure adopted to undertake an investigation follow a certain logical sequence. The different steps cannot be taken in a haphazard way. Some procedures must follow others.

4. Valid and Verifiable

This concept implies that whatever you conclude on the basis of your findings is correct and can be verified by you and others.

5. Empirical

This means that any conclusions drawn are based upon hard evidence gathered from information collected from real life experiences or observations.

6. Critical

Critical scrutiny of the procedures used and the methods employed is crucial to a research enquiry. The process of investigation must be foolproof and free from drawbacks. The process adopted and the procedures used must be able to withstand critical scrutiny.

For a process to be called research, it is imperative that it has the above characteristics.

3. TYPES OF RESEARCH

Research can be classified from three perspectives:

1. Application of research study
2. Objectives in undertaking the research
3. Inquiry mode employed

3.1. Application

From the point of view of application, there are two broad categories of research:

- Pure research and
- Applied research.

Pure research involves developing and testing theories and hypotheses that are intellectually challenging to the researcher but may or may not have practical application at the present time or in the future. The knowledge produced through pure research is sought in order to add to the existing body of research methods.

Applied research is done to solve specific, practical questions; for policy formulation, administration and understanding of a phenomenon. It can be exploratory, but is usually descriptive. It is almost always done on the basis of basic research. Applied research can be carried out by academic or industrial institutions. Often, an academic institution such as a university will have a specific applied research program funded by an industrial partner interested in that program.

4. STEPS IN RESEARCH PROCESS

1. Formulating the Research Problem
2. Extensive Literature Review
3. Developing the objectives
4. Preparing the Research Design including Sample Design
5. Collecting the Data

6. Analysis of Data
7. Generalisation and Interpretation
8. Preparation of the Report or Presentation of Results-Formal write ups of conclusions reached.

Step1. Formulating the Research Problem

It is the first and most crucial step in the research process

- Main function is to decide what you want to find out about.
- The way you formulate a problem determines almost every step that follows. Sources of research problems

Research in social sciences revolves around four Ps:

- People- a group of individuals
- Problems- examine the existence of certain issues or problems relating to their lives; to ascertain attitude of a group of people towards an issue
- Programs- to evaluate the effectiveness of an intervention
- Phenomena- to establish the existence of regularity.

Every research study has two aspects:

1. Study Population

- People: individuals, organizations, groups, communities

2. Subject Area

- Problems: issues, situations, associations, needs, profiles
- Program: content, structure, outcomes, attributes satisfactions, consumers, Service providers, etc.
- Phenomenon: cause-and-effect relationships, the study of a phenomenon itself.

5. CONSIDERATIONS IN SELECTING A RESEARCH PROBLEM

These help to ensure that your study will remain manageable and that you will remain motivated.

1. **Interest:** a research endeavour is usually time consuming, and involves hard work and possibly unforeseen problems. One should select topic of great interest to sustain the required motivation.
2. **Magnitude:** It is extremely important to select a topic that you can manage within the time and resources at your disposal. Narrow the topic down to something manageable, specific and clear.
3. **Measurement of Concepts:** Make sure that you are clear about the indicators and measurement of concepts (if used) in your study.
4. **Level of Expertise:** Make sure that you have adequate level of expertise for the task you are proposing since you need to do the work yourself.
5. **Relevance:** Ensure that your study adds to the existing body of knowledge, bridges current gaps and is useful in policy formulation. This will help you to sustain interest in the study.
6. **Availability of Data:** Before finalizing the topic, make sure that data are available.
7. **Ethical Issues:** How ethical issues can affect the study population and how ethical problems can be overcome should be thoroughly examined at the problem formulating stage.

6. CONCLUSION

In an ideal world, experimental research methods would be used for every type of research, fulfilling all of the requirements of generalization. However, ethics, time and budget are major factors, so any experimental design must make compromises. As long as a researcher recognizes

and evaluates flaws in the design when choosing from different research methods, any of the scientific research methods are valid contributors to scientific knowledge.

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