

RESEARCH METHODOLOGY

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ABSTRACT

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the 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 they need to know 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.

KEYWORDS: Research, Methodology, Research Methodology, Research Techniques, Qualitative research, Quantitative Research

INTRODUCTION

Research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. The Advanced Learner's Dictionary of Current English lays down the meaning of research as "a careful investigation or inquiry specially through search for new facts in any branch of

knowledge.” [1] Redman and Mary define research as a “systematized effort to gain new knowledge.” [2]Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. [3]Research Methodology is science of studying how research is done scientifically. A way to systematically solve the research problem by logically adopting various steps. Methodology helps to understand not only the products of scientific inquiry but the process itself. Research Methodology aims to describe and analyze methods, throw light on their limitations and resources, clarify their limitations and resources, clarify their presuppositions and consequences, relating their potentialities to the twilight zone at the „frontiers of knowledge“. [4]Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. (Irny and Rose, 2005) A methodology does not set out to provide solutions - it is, therefore, not the same thing as a method. Instead, it offers the theoretical underpinning for understanding which method, set of methods or best practices which can be applied to specific case, for example, to calculate a specific result.

RESEARCH

The process of research came into being due to man’s quest to be at tune with his environment and also understand nature. To achieve this, man uses the tools of experience and reasoning available to him. Man also makes use of experience and authoritative sources beyond his immediate circle. Experience and authority are rich and major sources of hypothesis, which are based mainly on common sense knowledge and haphazard events, therefore it can be unjustified for drawing conclusions on events. Hence research hypothesis formulation using experience and authority is judged to be unscientific. Research anchors on scientific reasoning; which could be inductive and deductive or both. Research is a combination of both experience and reasoning and can

be said to be the most appropriate way of discovering the truth, precisely in the natural Sciences.

METHODOLOGY

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OBJECTIVES OF RESEARCH

1. **Exploratory or formulative research:** To gain familiarity with a phenomenon or to achieve new insights into it.
2. **Descriptive research:** To portray accurately the characteristics of a particular individual, situation or a group.
3. **Diagnostic research:** To determine the frequency with which something occurs or with which it is associated.
4. **Hypothesis-testing research:** To test a hypothesis of a causal relationship between variables

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.

-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 (cookery, bakery), 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. Therefore in Hospitality and Tourism, as you cannot control external factors, you attempt to quantify their impact.

-Rigorous- we 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.

-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.

-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.

-Empirical- this means that any conclusion drawn are based upon hard evidence gathered from information collected from real life experiences or observations.

-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.

TYPES OF RESEARCH

1. Descriptive vs. Analytical

Descriptive research also called Ex post facto research includes surveys and fact-finding enquiries of different kinds. It describes the present state as it exists. In

this method the researcher has no control over the variables. He can only report the facts. for example: frequency of shopping, preferences of people, etc. The methods of research utilized in descriptive research are survey methods of all kinds, including comparative and correlational methods. In analytical research, 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

Fundamental research is mainly concerned with generalizations and with the formulation of a theory.

For example: 1. Research concerning some natural phenomenon or relating to pure mathematics. 2. Research studies, concerning human behavior carried on with a view to make generalisations about human behaviour. “Gathering knowledge for knowledge’s sake is termed **‘pure’ or ‘basic’ research.**” Applied research aims at finding a solution for an immediate problem facing a society or an industrial/business organization. For example: 1. research aimed at certain conclusions or solution facing a concrete social or business problem. 2. Research to identify social, economic or political trends that may affect a particular institution or the copy research or the marketing research or evaluation research are examples of applied research. Note: Copy Research is an aspect of advertising research and includes both the pretesting and post testing of advertisements or commercials in print or broadcast.

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 is concerned with phenomena relating to quality or kind. **For example:** 1. investigating why people think or do certain things (Motivation Research) 2. Research designed to find out how people feel or what they think about a particular subject or institution (Attitude or opinion research).

4. Conceptual vs. Empirical

Conceptual research is that related to some abstract idea or theory. It is generally used by philosophers and thinkers to develop new concepts or to reinterpret existing ones. Empirical research or experimental type of 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.

It is necessary to get at facts firsthand information, provide a working hypothesis (guess the probable results), get enough facts to prove or disprove his hypothesis, set up experimental designs to bring forth the desired information. In such research, the experimenter has control over the variables and his deliberate manipulation of one of them to study its effects.

5. One-time research or Longitudinal research

One-time research is confined to a single time-period Longitudinal research is carried on over several time-periods.

6. Field-setting research or laboratory research or simulation research

Field-setting research or laboratory research or simulation research, depend upon the environment in which it is to be carried out.

7. Clinical or diagnostic research

Hyderabad 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 or it may be formalized

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. 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.

SIGNIFICANCE OF RESEARCH:

“All progress is born of inquiry. Doubt is often better than overconfidence, for it leads to inquiry, and inquiry leads to invention” is a famous Hudson Maxim in context of which the significance of research can well be understood. Increased amounts of research make progress possible. Research inculcates scientific and inductive thinking and it promotes the development of logical habits of thinking and organization. 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. The increasingly complex nature of business and governance has focused attention on the use of research in solving operational problems. Research, as an aid to economic policy, has gained added importance, both for governance and business.

Research provides the basis for nearly all government policies in our economic system. For instance, government’s budgets rest in part on an analysis of the needs and

desires of the people and on the availability of revenues to meet those needs. The cost of needs has to be equated to probable revenues and this is a field where research is most needed. Through research we can devise alternative policies and can as well examine the consequences of each of these alternatives. Decision-making may not be a part of research, but research certainly facilitates the decisions of the policy maker. Government has to chalk out programmes for dealing with all facets of the country's various operations and most of these are related directly or indirectly to economic conditions. The plight of cultivators, the problems of big and small business and industry, working conditions, trade union activities, the problems of distribution, even the size and nature of defence services are matters requiring research. Thus, research is considered necessary with regard to the allocation of nation's resources. Another area in government, where research is necessary, is collecting information on the economic and social structure of the nation. Such information indicates what is happening in the economy and what changes are taking place. Collecting such statistical information is by no means a routine task, but it involves a variety of research problems. These days nearly all governments maintain large staff of research technicians or experts to carry on this work. Thus, in the context of government, research as a tool to economic policy has three distinct phases of operation, viz., (i) investigation of economic structure through continual compilation of facts; (ii) diagnosis of events that are taking place and the analysis of the forces underlying them; and (iii) the prognosis, i.e., the prediction of future developments.

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 minimization or of profit maximization or what can be termed as optimization problems. Motivational research of determining why people behave as they do is mainly concerned with market characteristics. In other words, it is concerned with the

determination of motivations underlying the consumer (market) behaviour. All these are of great help to people in business and industry who are responsible for taking business decisions. Research with regard to demand and market factors has great utility in business. Given knowledge of future demand, it is generally not difficult for a firm, or for an industry to adjust its supply schedule within the limits of its projected capacity. Market analysis has become an integral tool of business policy these days. Business budgeting, which ultimately results in a projected profit and loss account, is based mainly on sales estimates which in turn depends on business research. Once sales forecasting is done, efficient production and investment programmes can be set up around which are grouped as the purchasing and financing plans. Research, thus, replaces intuitive business decisions by more logical and scientific decisions.

Research is equally important for social scientists in studying social relationships and in seeking answers to various social problems. It provides the intellectual satisfaction of knowing a few things just for the sake of knowledge and also has practical utility for the social scientist to know for the sake of being able to do something better or in a more efficient manner. Research in social sciences is concerned with (i) the development of a body of principles that helps in understanding the whole range of human interactions, and (ii) the practical guidance in solving immediate problems of human relations. In addition to what has been stated above, the significance of research can also be understood keeping in view the following points: (a) 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; (b) To professionals in research methodology, research may mean a source of livelihood; (c) To philosophers and thinkers, research may mean the outlet for new ideas and insights; (d) To literary men and women, research may mean the development of new styles and creative work; and (e) To analysts and intellectuals, research may mean the development 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.

Criteria of Good Research

Whatever may be the types of research works and studies, one thing that is important is that they all meet on the common ground of scientific method employed by them. One expects scientific research to satisfy the following criteria:

1. The purpose of the research should be clearly defined and common concepts be used.
2. The research procedure used should be described in sufficient detail to permit another researcher to repeat the research for further advancement, keeping the continuity of what has already been attained.
3. The procedural design of the research should be carefully planned to yield results that are as objective as possible.
4. The researcher should report with complete frankness, flaws in procedural design and estimate their effects upon the findings.
5. The analysis of data should be sufficiently adequate to reveal its significance and the methods of analysis used should be appropriate. The validity and reliability of the data should be checked carefully.
6. Conclusions should be confined to those justified by the data of the research and limited to those for which the data provide an adequate basis.
7. Greater confidence in research is warranted if the researcher is experienced, has a good reputation in research and is a person of integrity.

CONCLUSION

Research is a voyage of discovery; a journey; an attitude; an experience; a method of critical thinking; an activity caused by instinct of inquisitiveness to gain fresh insight/find answers to question/acquire knowledge.

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