

## **TYPES OF RESEARCH**

Research can be classified into various categories depending on the perspective under which the research activity is initiated and conducted. The categorization depends on the following perspectives in general:

- Application of research study
- Objectives in undertaking the research
- Inquiry mode employed for research

### **1. Classification based on Application:**

a. **Pure / Basic / Fundamental Research:** As the term suggests a research activity taken up to look into some aspects of a problem or an issue for the first time is termed as basic or pure. It 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. Pure research is theoretical but has a universal nature. It is more focused on creating scientific knowledge and predictions for further studies.

b. **Applied / Decisional Research:** Applied research is done on the basis of pure or fundamental research to solve specific, practical questions; for policy formulation, administration and understanding of a phenomenon. It can be exploratory, but is usually descriptive. The purpose of doing such research is to find solutions to an immediate issue, solving a particular problem, developing new technology and look into future advancements etc. This involves forecasting and assumes that the variables shall not change.

### **Key Differences between Basic and Applied Research**

a) Basic Research can be explained as research that tries to expand the already existing scientific knowledge base. On the contrary, applied research is used to mean the scientific study that is helpful in solving real-life problems.

b) While basic research is purely theoretical, applied research has a practical approach.

c) The applicability of basic research is greater than the applied research, in the sense that the former is universally applicable whereas the latter can be applied only to the specific problem, for which it was carried out.

d) The primary concern of the basic research is to develop scientific knowledge and predictions. On the other hand, applied research stresses on the development of technology and technique with the help of basic science.

e) The fundamental goal of the basic research is to add some knowledge to the already existing one. Conversely, applied research is directed towards finding a solution to the problem under consideration.

## **2. Classification based on Objectives:**

a. **Descriptive Research:** This attempts to explain a situation, problem, phenomenon, service or programme, or provides information viz. living condition of a community, or describes attitudes towards an issue but this is done systematically. It is used to answer questions of who, what, when, where, and how associated with a particular research question or problem. This type of research makes an attempt to collect any information that can be expressed in quantifiable terms that can be used to statistically analyze a target audience or a particular subject. Descriptive research is used to observe and describe a research subject or problem without influencing or manipulating the variables in any way. Thus, such studies are usually correlation or observational. This type of research is conclusive in nature, rather than inquisitive. E.g., explaining details of budget allocation changes to departmental heads in a meeting to assure clarity and understanding for reasons to bring in a change.

### **b. Co relational Research:**

This is a type of non-experimental research method, in which a researcher measures two variables, understands and assesses the statistical relationship between them with no influence from any extraneous variable. This is undertaken to discover or establish the existence of a relationship/ interdependence between two or more aspects of a situation. For example, the mind can memorize the bell of an ice cream seller or sugar candy vendor. Louder the bell sound, closer is the vendor to us. We draw this inference based on our memory and the taste of these delicious food items. This is specifically what co relational research is, establishing a relationship between two variables, —bell sound|| and —distance of the vendor|| in this particular example. Co relational research is looking for variables that seem to interact with each other so that when you see one variable changing, you have a fair idea how the other variable will change.

### **c. Explanatory:**

This is the research whose primary purpose is to explain why events occur, to build, elaborate, extend or test a theory. It is more concerned with showcasing, explaining and presenting what we already have. It is the process of turning over 100 rocks to find perhaps 1 or 2 precious gemstones. Explanatory survey research may look into the factors that contribute to customer satisfaction and determine the relative weight of each factor, or seek to model the variables that lead to people shifting to departmental stores from small shops from where they have been making purchases till now. An exploratory survey posted to a social networking site may uncover the fact that an organization's customers are unhappy thus helping the organization take up necessary corrective measures.

### **d. Exploratory Research:**

Exploration has been the human kind's passion since the time immemorial. Looking out for new things, new destinations, new food, and new cultures has been the basis of most tourist and travel journeys. In the subjective terms exploratory research is conducted to find a solution for a problem that has not been studied more clearly, intended to establish priorities, develop operational definitions and improve the final research design. Exploratory research helps determine the best research design, data-collection method and selection of subjects. For such research, a researcher starts with a general idea and uses this research as a medium to identify issues that can be the hub for future research. An important aspect here is that the researcher should be willing to change his/her direction subject to the revelation of new data or insight. Such research is usually carried out when the problem is at a beginning stage. It is often referred to as grounded theory approach or interpretive research as it used to answer questions like what, why and how. For example: a fast-food outlet owner feels that increasing the variety of snacks will enable increase in sales, however he is not sure and needs more information. Thus, the owner starts studying local competition, talks to the existing customers, friends etc to find out what are their views about the current menu and what else do they wish to be included in the menu and also assess whether he would be able to generate higher revenues.

## **3. Classification based on Inquiry Mode:**

### **a. Structured approach:**

The structured approach to inquiry is usually classified as quantitative research. Here everything that forms the research process- objectives, design, sample, and the questions that you plan to ask of respondents- is predetermined. It is more appropriate to determine the extent

of a problem, issue or phenomenon by quantifying the variation e.g. how many people have a particular problem? How many people hold a particular attitude? E.g. asking a guest to give feedback about the dishes served in a restaurant.

#### **b. Unstructured approach:**

The unstructured approach to inquiry is usually classified as qualitative research. This approach allows flexibility in all aspects of the research process. It is more appropriate to explore the nature of a problem, issue or phenomenon without quantifying it. Main objective is to describe the variation in a phenomenon, situation or attitude e.g., description of an observed situation, the historical enumeration of events, an account of different opinions different people have about an issue, description of working condition in a particular industry. E.g. when guest is complaining about the room not being comfortable and is demanding a discount the staff has to verify the claims empathically.

In many studies you have to combine both qualitative and quantitative approaches. For example, suppose you have to find the types of cuisine / accommodation available in a city and the extent of their popularity. Types of cuisine are the qualitative aspect of the study as finding out about them entails description of the culture and cuisine. The extent of their popularity is the quantitative aspect as it involves estimating the number of people who visit restaurant serving such cuisine and calculating the other indicators that reflect the extent of popularity.

#### **4. Other Types of Research:**

##### **(i) Descriptive v/s Analytical:**

Descriptive research includes surveys and factfinding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists at any given time. The term *Ex post facto* research is used in social sciences and business research for descriptive research studies. The researcher only reports about the factors identified and cannot modify the details available thus it makes it clear that he does not have any control over such variables Most ex post facto research projects are used for descriptive studies in which the researcher strives to find out information about, for example, frequency of dining out, preferences of individuals, etc. 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 co relational methods. In analytical research, on the other hand, the researcher has to use facts or information already available, and analyse these to make a critical evaluation of the material.

**(ii) Applied v/s 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 organization, whereas fundamental research is mainly concerned with generalizations and with the formulation of a theory.

**(iii) Quantitative v/s 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. E.g., Studying the number of enquiries received for room bookings through different modes like internet, emails, calls, letters, or different sources like travel and tours operators, companies and government organizations etc.

**Qualitative research**, on the other hand, is concerned with qualitative phenomenon, i.e., phenomena relating to or involving quality or kind. E.g., studying the stress levels and reasons for variable performances of staff in different shifts in the same department of a hotel. The same individuals may perform differently with the change of shift timings. It can involve performing research about changing preferences of customers as per the change of season.

Another example is attitude or opinion research i.e., research intended to find out how people feel or what they think about a particular subject or institution is also qualitative research. Through behavioral research we can evaluate the diverse factors which motivate people to behave in a particular manner or which make people like or dislike a particular thing. It is therefore important that to be relevant in qualitative research in practice the researcher should seek guidance from qualified individuals from the field opted.

**(iv) Conceptual vs. Empirical:**

Conceptual research is associated to some theoretical idea(s) or presupposition and is generally used by philosophers and thinkers to develop new concepts or to get a better understanding of an existing concept in practice. On the other hand, **Empirical research** draws together the data based 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 also known as experimental research as it is essential to get facts first hand, at their source, and actively to go about doing certain things to stimulate the production of desired information. Here the researcher develops a hypothesis and assimilates certain outcomes to start with followed by efforts to get adequate facts (data) to prove or disprove his hypothesis. An experimental design is then developed based on variables that can

modify or concur the results to prove that he has given a valid statement. This also affirms that he has a reasonable control over the variables and can get different results by giving different values to them. 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.