

## **Topic – Research Design – Concept, Need, Advantages, Importance & Features of Good Research Design**

### **CONCEPT OF RESEARCH DESIGN**

The research design is an overall formulation of a research problem. It refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way. It is a framework or blueprint for conducting the research. In simple words it is the general plan of how you will go about your research. According to Smith (1976) – “A design is a carefully arranged scheme regarding how to conduct an experiment. The design of an experiment refers to the selection and arrangement of conditions”. According to Kerlinger – “Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance”.

The design of a study defines the study type (descriptive, correlational, semi-experimental, experimental, review, meta-analytic) and sub-type (e.g., descriptive - longitudinal case study), research question, hypotheses, independent and dependent variables, experimental design, and, if applicable, data collection methods and a statistical analysis plan. A research design will typically include how data is to be collected, what instruments will be employed, how the instruments will be used and the intended means for analysing data collected.

A research design is a systematic plan to study a scientific problem. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in Procedure.

The research design is a comprehensive master plan of the research study to be undertaken, giving a general statement of the methods to be used.

### **Need for Research Design**

Research design is needed because it facilitates the smooth sailing of the various research operations. It makes the research as efficient as possible by giving maximum information with minimal expenditure of effort, time and money. For construction of a house, we need to have a proper blueprint prepared by an expert architect. Similarly, we need a proper research design or plan prior to data collection and analysis of our research project. Preparation of research design should be done carefully as even a minute error might ruin the purpose of the entire project. The design helps the researcher to organize his/her ideas, which helps to identify and correct his/her flaws, if any. In a good research design, all the components with each other or go together with each other in a coherent manner. The theoretical and conceptual framework must with the research goals and purposes. Likewise, the data collection strategy must fit with the research purposes, conceptual and theoretical framework and approach to data analysis.

In short, the need for research design is as follows –

- Provides firm foundation to the endeavour.
- It reduces inaccuracy.  Helps to get maximum efficiency and reliability.
- Eliminates bias and marginal errors.
- Minimizes wastage of time.
- Reduce uncertainty, confusion and practical haphazard related to any research problem.

- Helpful for collecting research materials.
- Helpful for testing of hypothesis.
- Gives an idea regarding the type of resources required in terms of money, manpower, time, and efforts.
- Provides an overview to other experts.
- Guides the research in the right direction.
- Smooth & efficient sailing (sets boundaries & helps prevent blind search).

## **Advantages of Research Design**

Helps researcher to prepare himself/herself to carry out research in a proper and a systematic way.

- Ensures project time schedule.
- Consumes less time.
- Better documentation of the various activities while the project work is going on.
- Provides satisfaction and confidence, accompanied with a sense of success from the beginning of the work of the research project.
- Helps in proper planning of the resources and their procurement in right time. Hence, a research design is the outline, plan, or strategy that you are going to use to obtain an answer to your research question.

## **Importance of Research Design**

The importance of research design lies in the fact that it makes a statement of what is to be done in order to achieve the research objectives and how it is to be done.

It furnishes the minimum information required for planning the research project.

It is an expression of what is expected of the research exercise in terms of results and the analytical input needed to convert data into research findings.

The research design furnishes a clear idea as to the activities that would need to be undertaken in order to achieve the research objective.

It enables the researcher to have a frame of reference and prevent the study from deviating.

The research design helps in providing direction to the computation and interpretation process to arrive at solution and recommendations

## **Feature of Good Research Design**

There are following feature of good research design. Which are as follows.

1. Research Design should clarify the Particular research problem.
2. It Provides guideline for specific method of data collection & Analysis.
3. Research Design should be Flexible, efficient & Economical in nature.
4. Research Design minimises Biasness of Study.
5. Research Design must support reliability of data.

