



**Module:** English

**Branch:** Finance and International Trade

**Level:** Third year Bachelor

## **Lecture 03: Research Design**

### **1-Meaning Of Research Design**

The research design is a crucial step that follows the definition of the research problem. It involves planning decisions about what, where, when, how much, and how the research will be conducted. Essentially, a research design is the structured plan or blueprint that guides the collection, measurement, and analysis of data. It ensures that the study remains relevant to its objectives while being efficient. The design outlines the researcher's actions from formulating the hypothesis to analyzing the final data. More explicitly, the design decisions happen to be in respect of:

- What is the study about?
- Why is the study being made?
- Where will the study be carried out?
- What type of data is required?
- Where can the required data be found?
- What periods of time will the study include?
- What will be the sample design?
- What techniques of data collection will be used?
- How will the data be analysed?
- In what style will the report be prepared?

Considering the design decisions mentioned above, the overall research design can be divided into the following components:

- *The sampling design* which deals with the method of selecting items to be observed for the given study;
- *The observational design* which relates to the conditions under which the observations are to be made;
- *The statistical design* which concerns with the question of how many items are to be observed and how the information and data gathered are to be analysed; and
- *The operational design* which deals with the techniques by which the procedures specified in the sampling, statistical and observational designs can be carried out.

From what has been stated above, we can state the important features of a research design as under:

- It is a plan that specifies the sources and types of information relevant to the research problem.
- It is a strategy specifying which approach will be used for gathering and analysing the data.
- It also includes the time and cost budgets since most studies are done under these two constraints.

In brief, research design must, at least, contain—(a) a clear statement of the research problem; (b) procedures and techniques to be used for gathering information; (c) the population to be studied;

and (d) methods to be used in processing and analysing data.

## **2-Need for Research Design**

Research design is essential for ensuring that a research project is conducted efficiently and effectively, providing maximum information with minimal effort, time, and cost. Like a blueprint for building a house, a research design serves as a plan for collecting and analyzing data, aligned with the research objectives and available resources. A well-prepared design ensures reliability of results and forms the foundation of the research. However, its importance is often overlooked, leading to ineffective or misleading studies. A good research design helps organize ideas, identify flaws, and invites constructive feedback, making it a crucial step before starting any research.

## **3- Features of a Good Research Design**

A good research design is typically described using terms such as flexible, suitable, efficient, and cost-effective. In general, a well-designed study is one that reduces bias and enhances the reliability of the collected and analyzed data. In many cases, the ideal design is the one that minimizes experimental errors. A design that delivers the most comprehensive data and allows for examination of multiple dimensions of a problem is viewed as both effective and appropriate for many research issues. Therefore, what constitutes a "good" design depends largely on the specific goals and nature of the research problem. A design that works well for one study might not be suitable for another.

Choosing the right design involves considering several key factors:

- .How the required information will be gathered;
- .The skills and availability of the researcher and any team members;
- .The study's objective;
- .The characteristics of the problem being investigated;
- .The time and financial resources available.

In exploratory or preliminary research—where the main goal is to generate ideas and insights—a design must be flexible to explore different angles of the topic. On the other hand, in descriptive studies that aim to precisely outline a situation or the relationship between variables, the design must focus on accuracy, low bias, and high data reliability. Hypothesis-testing studies, which examine cause-and-effect relationships, require designs that not only ensure reliability and limit bias but also allow for causal inference.

In reality, many studies combine aspects of different research types. As such, a study should be categorized based on its primary aim—be it exploration, description, or hypothesis testing—to guide the selection of a suitable research design. Additionally, factors like time, budget, research team expertise, and data collection methods must be carefully considered when planning elements such as experimental, survey, or sampling designs.