Research Design

The research design is the master plan specifying the methods and procedures for collecting and analyzing the needed information

Types Of Research Design

Three traditional categories of research design:

- Exploratory
- Descriptive
- Causal

The choice of the appropriate design depends largely on the objectives of the research and how much is known about the problem and these objectives.

Research Design: Some Observations

The overall research design for a project may include one or more of these three designs as part(s) of it.

Further, if more than one design is to be used, typically we progress from Exploratory toward Causal.

Basic Research Objectives and Research Design

Research Objective	Appropriate Design
To gain background information, to define terms, to clarify problems and develop hypotheses, to establish research priorities, to develop questions to be answered	Exploratory
To describe and measure any phenomena at a point in time	Descriptive
To determine causality, test hypotheses, to make "if-then statements, to answer questions	Causal

Research Design: Exploratory Research

- **Exploratory research** is most commonly unstructured, "informal" research that is undertaken to gain background information about the general nature of the research problem.
- **Exploratory research** is usually conducted when the researcher does not know much about the problem and needs additional information or desires new or more recent information.

Research Design: Exploratory Research

- **Exploratory research is used in a number of situations:**

1) To gain background information
2) To define terms
3) To clarify problems and hypotheses
4) To establish research priorities

Research Design: Exploratory Research

- **A variety of methods are available to conduct exploratory research:**

1) Secondary Data Analysis
2) Experience Surveys
3) Case Analysis
4) Focus Groups
5) Projective Techniques

Research Design: Descriptive Research

- **Descriptive research is undertaken to provide answers to questions of who, what, where, when, and how-but not why.**
- **Two basic classifications:**

-Cross-sectional studies

-Longitudinal studies

Research Design: Descriptive Research
CROSS-SECTIONAL STUDIES

- **Cross-sectional studies measure units from a sample of the population at only one point in time.**
- **Sample surveys are cross-sectional studies whose sample are drawn in such way as to be representative of a specific population.**

Research Design: Descriptive Research
LONGITUDINAL STUDIES

- Longitudinal studies repeatedly draw sample units of a population over time.
- One method is to draw different units fom the same sampling frame.
- A second method is to use a "panel" where the same people are asked to respond periodically.
- On-Line survey research firms recruit panel members to respond to online queries.

Research Design: CUASAL RESEARCH LONGITUDINAL STUDIES

- **Causality may be thought of as understanding a phenomenon in terms of conditional statements of the form "IF x, then y."**

- **Causal relationships are typically determined by the use of experiments, but other methods are also used.**