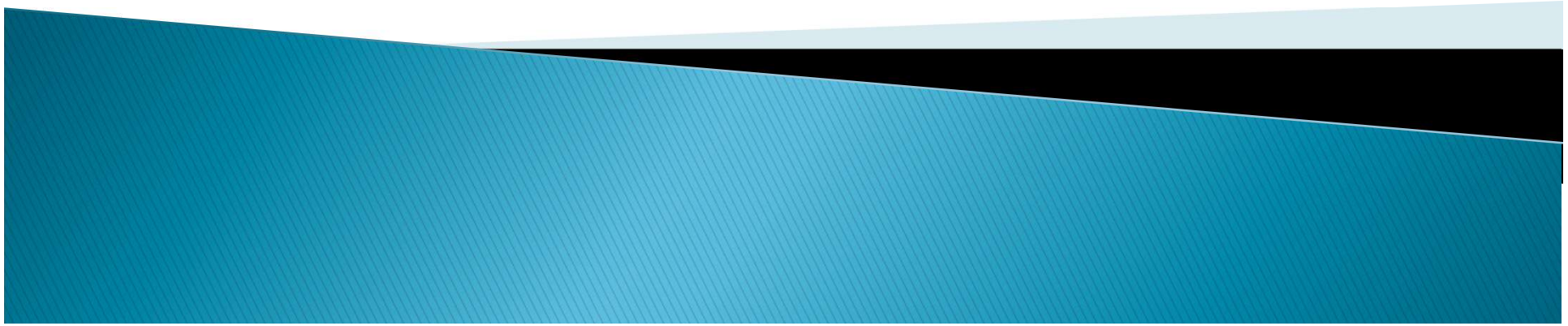
RESEARCH DESIGN

- OUTLINE
- SOURCES AND TYPES OF DATA
- METHODS OF DATA COLLECTION
- SAMPLING



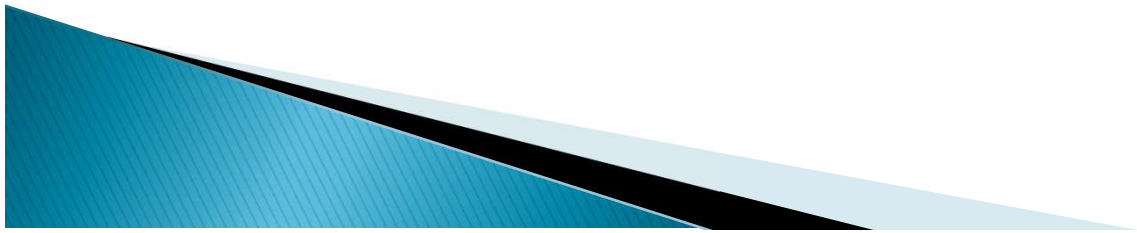
Research Design

Kerlinger (1986)

A research design is plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. The plan is the complete scheme or programme of the research. It includes an outline of what the investigator will do from writing the hypotheses and their operational implications to the final analysis of data

Structure – Variables and analytical procedures

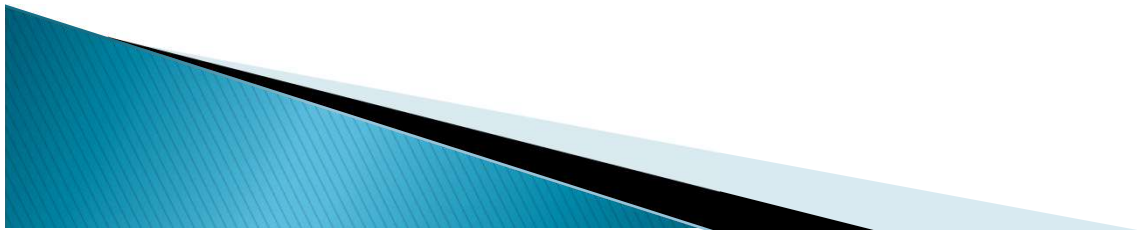
Strategy – Methods and tools, problem solving procedures



Research Design

Thyer (1993)

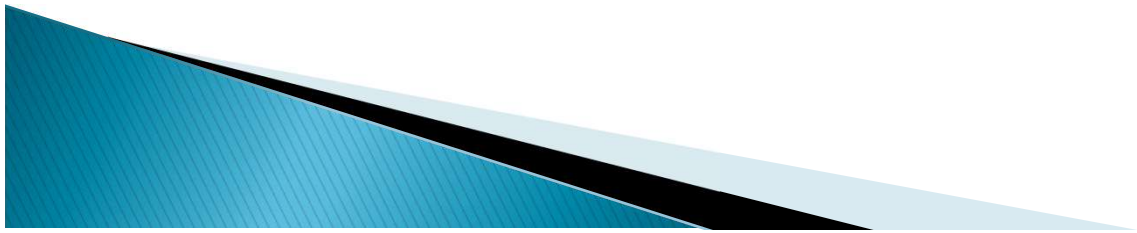
A traditional research design is a blue print or detailed plan for how a research study is to be completed- operationalizing variables so that they can be measured, selecting a sample of interest to study, collecting data to be used as a basis for testing hypotheses and analysing the results.



Research Design

Selltiz et al. (1962)

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.



Research Design

Decisions regarding

- **What**
- **Where**
- **When**
- **How much**
- **By what means**

concerning an inquiry or a research study

Summarily it may be said that Research Design is a logical, systematic and detailed outline or work plan which state HOW the research will be accomplished

RESEARCH DESIGN

It is the conceptual structure within which research is conducted; constitutes the blueprint for collection, measurement and analysis of data.

- More explicitly, research design comprises decisions in respect of
  - What is the study about? – Research Problem
  - Why is the study being made? – Rationale (Purpose and use of research)
  - Type of research (Exploratory/Descriptive/Explanatory/ Diagnostic)
  - Hypothesis?
  - Preceding studies and literature available
  - Where will the study be carried out? – Study area/ Population
  - What periods of time will the study include? – Study period
  - Variables?
  - What type of data is required?
  - Where can the required data be found? - Data sources
  - What will be the sample design?
  - What techniques of data collection will be used?
  - How will the data be coded, tabulated, classified and analysed?
  - Time and cost budget
  - In what style will the report be prepared?

Methodology

RESEARCH DESIGN

Four parts of a research design

Sampling Design	• Method of selecting items to be observed for given study
Observational Design	• Elaborating conditions under which observations are to be made
Statistical Design	• How many items are to be observed and how the information and data gathered are to be analysed?
Operational Design	• Techniques by which the procedures specified in the above three designs can be carried out.

Need for Research Design – Insurance against failures

- Facilitates the smooth sailing of various research operations.
- Determines boundaries of research
- Research ideas are organized in a form whereby it is possible for the researcher to look for flaws and inadequacies.
- Makes research as efficient as possible yielding maximal information with minimal expenditure of effort, time and money – avoids expenditure on irrelevant facts
- Has great bearing on reliability of results arrived at.
- Constitutes the firm foundation of entire edifice of research work.
- Any error in RD may upset the entire project and render the research exercise futile.

An efficient and appropriate design must be prepared before starting research operations. Can also be given to others for comments and critical evaluation.

Features of a Good Research Design

- One research design cannot serve the purpose of all types of research problems.
- Definition of good design is related to the purpose or objective of the research and also with the nature of the problem being studied.
- A good design should minimise bias and maximise reliability of the data collected and analysed.
- Choice of the research design (Experimental/Survey/ Sample) should be guided by-
  - Means of obtaining information
  - Availability and skills of the researcher and his staff
  - The objective of research
  - Nature of the problem to be studied
  - Availability of time and money for research work
  - Nature of research (Exploratory/ Descriptive/ Hypothesis Testing/Experimental..)