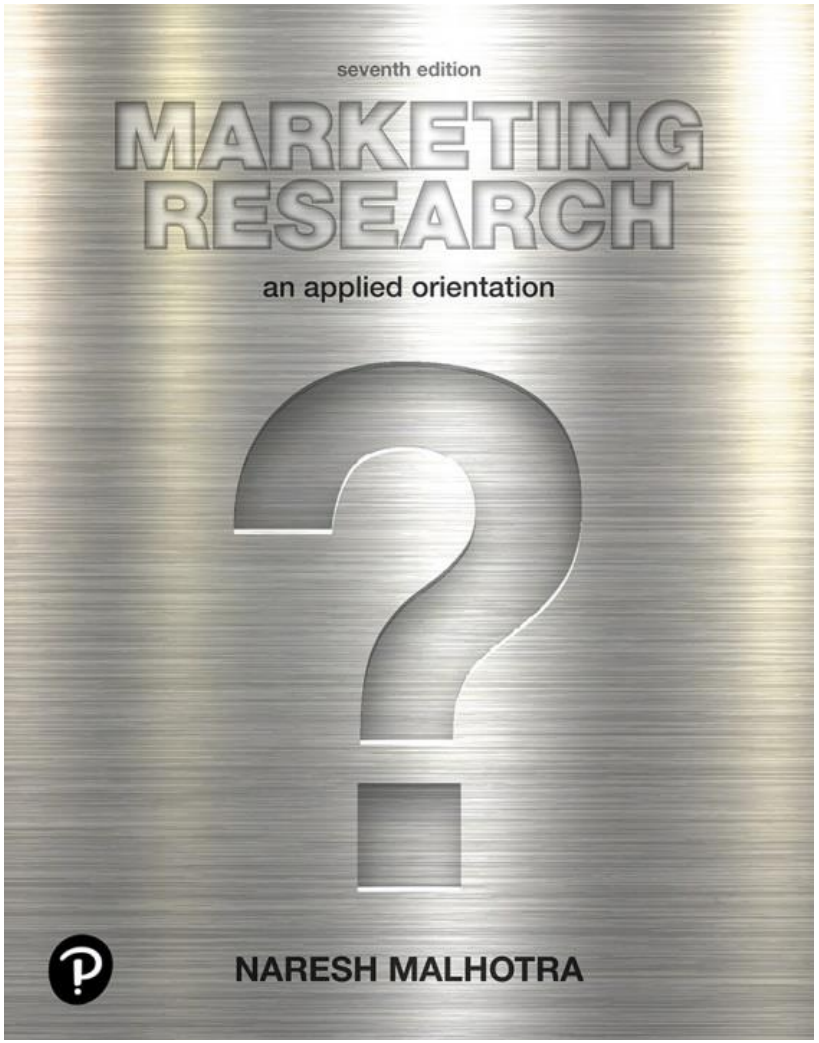
Marketing Research: An Applied Orientation

Seventh Edition



Chapter 3

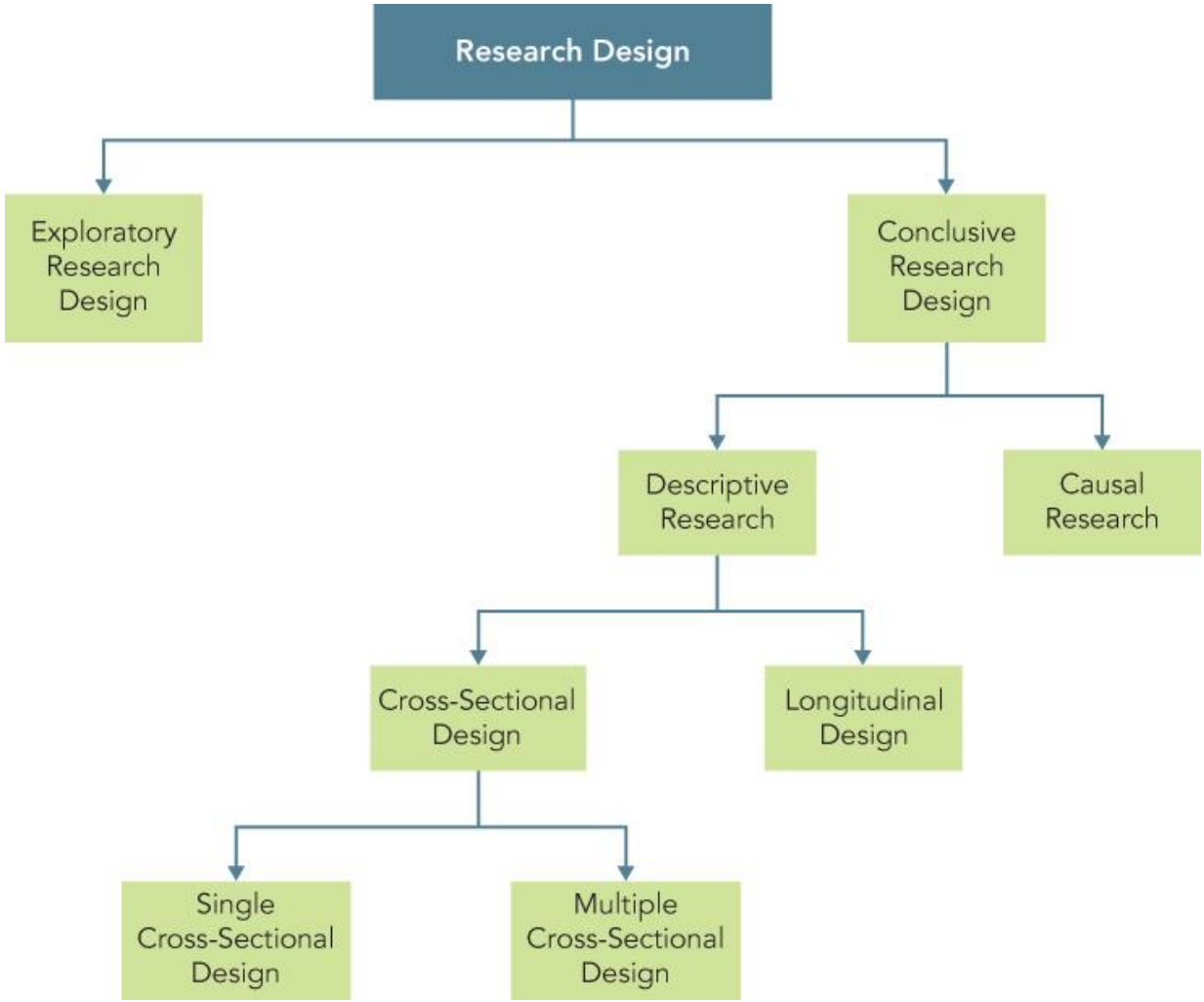
Research Design

Research Design: Definition

- A **research design** is a framework or blueprint for conducting the marketing research project. It details the procedures necessary for obtaining the information needed to structure or solve marketing research problems.

A Classification of Marketing Research Designs

Figure 3.1 A Classification of Marketing Research Designs



Exploratory & Conclusive Research Differences

Table 3.1 Differences Between Exploratory and Conclusive Research

	Exploratory	**Conclusive**
Objective:	To provide insights and understanding	To test specific hypotheses and examine relationships
Characteristics:	Information needed is defined only loosely. Research process is flexible and unstructured. Sample is small and nonrepresentative. Analysis of primary data is qualitative.	Information needed is clearly defined. Research process is formal and structured. Sample is large and representative. Data analysis is quantitative.
Findings/Results:	Tentative	Conclusive
Outcome:	Generally followed by further exploratory or conclusive research	Findings used as input into decision making

Uses of Exploratory Research

- Formulate a problem or define a problem more precisely
- Identify alternative courses of action
- Develop hypotheses
- Isolate key variables and relationships for further examination
- Gain insights for developing an approach to the problem
- Establish priorities for further research

Methods of Exploratory Research

- Survey of experts (Chapter 2)
- Pilot surveys (Chapter 2)
- Secondary data analyzed in a qualitative way (Chapter 4)
- Qualitative research (Chapter 5)

Use of Descriptive Research

- To describe the characteristics of relevant groups, such as consumers, salespeople, organizations, or market areas
  - To estimate the percentage of units in a specified population exhibiting a certain behavior
  - To determine the degree to which marketing variables are associated
  - To make specific predictions

Methods of Descriptive Research

- Secondary data analyzed in a quantitative, as opposed to a qualitative, manner (Chapter 4)
- Surveys (Chapter 6)
- Panels (Chapters 4 and 6)

Cross-Sectional Designs

- Involve the collection of information from any given sample of population elements only once.
- In **single cross-sectional designs**, there is only one sample of respondents and information is obtained from this sample only once.
- In **multiple cross-sectional designs**, there are two or more samples of respondents, and information from each sample is obtained only once. Often, information from different samples is obtained at different times.
- **Cohort analysis** consists of a series of surveys conducted at appropriate time intervals, where the cohort serves as the basic unit of analysis. A cohort is a group of respondents who experience the same event within the same time interval.

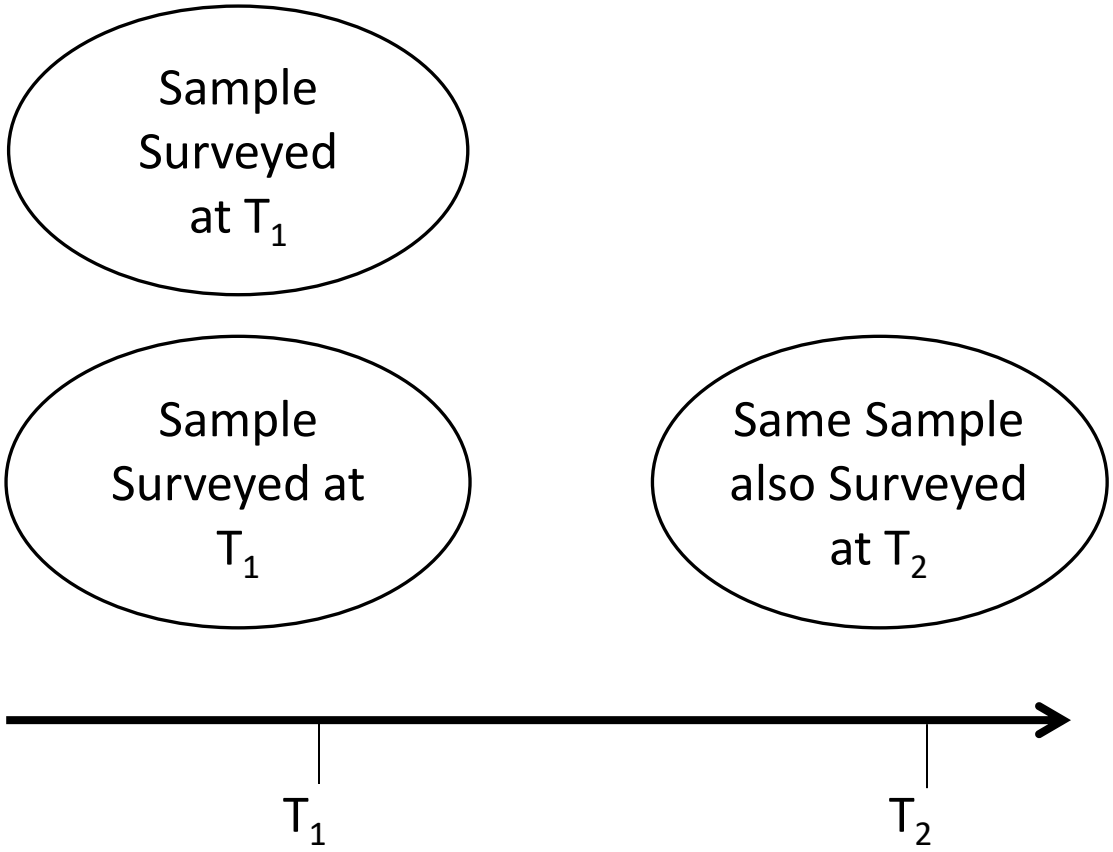
Longitudinal Designs

- A fixed sample (or samples) of population elements is measured repeatedly on the same variables
- A longitudinal design differs from a cross-sectional design in that the sample or samples remain the same over time

Cross-Sectional vs. Longitudinal

Cross-Sectional Design

Longitudinal Design



Relative Advantages and Disadvantages of Longitudinal and Cross-Sectional Designs

Table 3.3 Relative Advantages and Disadvantages of Longitudinal and Cross-Sectional Designs

Evaluation Criteria	Cross-Sectional Design	Longitudinal Design
Detecting change	−	+
Large amount of data collection	−	+
Accuracy	−	+
Representative sampling	+	−
Response bias	+	−

Note: A + indicates a relative advantage over the other design, whereas a − indicates a relative disadvantage.

Cross-Sectional Data May Not Show Change

Table 3.4 Cross-Sectional Data May Not Show Change

	Time Period	
Brand Purchased	Period 1 Survey	Period 2 Survey
Brand A	200	200
Brand B	300	300
Brand C	500	500
Total	1,000	1,000

Longitudinal Data May Show Substantial Change

Table 3.5 Longitudinal Data May Show Substantial Change

Brand Purchased in Period 1	**Brand Purchased in Period 2**			
	Brand A	**Brand B**	**Brand C**	**Total**
Brand A	100	50	50	200
Brand B	25	100	175	300
Brand C	75	150	275	500
Total	200	300	500	1,000

Uses of Causal Research

- To understand which variables are the cause (independent variables) and which variables are the effect (dependent variables) of a phenomenon
- To determine the nature of the relationship between the causal variables and the effect to be predicted
- METHOD: Experiments

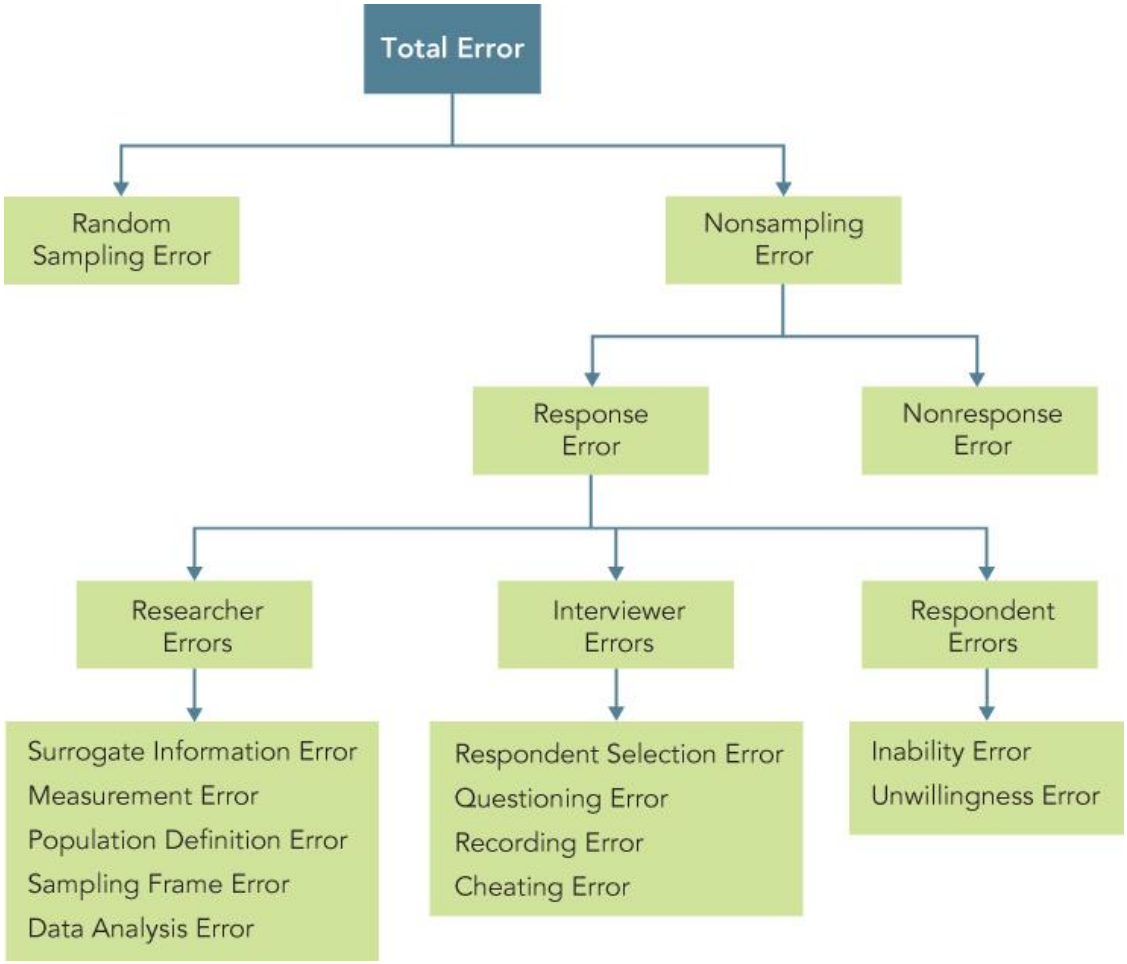
A Comparison of Basic Research Designs

Table 3.2 A Comparison of Basic Research Designs

	Exploratory	**Descriptive**	**Causal**
Objective:	Discovery of ideas and insights	Describe market characteristics or functions	Determine cause-and-effect relationships
Characteristics:	Flexible, versatile	Marked by the prior formulation of specific hypotheses	Manipulation of one or more independent variables
	Often the front end of total research design	Preplanned and structured design	Measure the effect on dependent variable(s) Control of other mediating variables
Methods:	Expert surveys Pilot surveys Case studies Secondary data: qualitative analysis Qualitative research	Secondary data: quantitative analysis Surveys Panels Observation and other data	Experiments

Potential Sources of Error in Research Designs

Figure 3.2 Potential Sources of Error in Research Designs



Errors in Marketing Research (1 of 2)

- The **total error** is the variation between the true mean value in the population of the variable of interest and the observed mean value obtained in the marketing research project.
- **Random sampling error** is the variation between the true mean value for the population and the true mean value for the original sample.
- **Non-sampling errors** can be attributed to sources other than sampling, and they may be random or nonrandom: including errors in problem definition, approach, scales, questionnaire design, interviewing methods, and data preparation and analysis. Non-sampling errors consist of non-response errors and response errors.

Errors in Marketing Research (2 of 2)

- **Non-response error** arises when some of the respondents included in the sample do not respond.
- **Response error** arises when respondents give inaccurate answers or their answers are misrecorded or misanalyzed.
- **More details** https://home.iitk.ac.in/~shalab/course1.htm