Chapter Three

Research Design Formulation
Focus of This Chapter
- Definition and Classification of Research Design
- Exploratory Research Design
- Descriptive Research Design
- Causal Research Design

Relationship to Previous Chapter
- Marketing Research Process (Chapter 1)
- Specification of the Information Needed (Chapter 2)

Relationship to Marketing Research Process
- Problem Definition
- Approach to Problem
- Research Design
- Field Work
- Data Preparation and Analysis
- Report Preparation and Presentation
Figure 3.3 Steps Leading to the Formulation of a Research Design

1. Define the Marketing Research Problem
2. Develop an Approach to the Problem
3. Formulate the 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.
Components of a Research Design

- Define the information needed (Chapter 2)
- Design the exploratory, descriptive, and/or causal phases of the research (Chapters 3 - 8)
- Specify the measurement and scaling procedures (Chapters 9 and 10)
- Construct and pretest a questionnaire (interviewing form) or an appropriate form for data collection (Chapter 11)
- Specify the sampling process and sample size (Chapters 12 and 13)
- Develop a plan of data analysis (Chapter 15)
Figure 3.4
A Classification of Market Research Designs

- Research Design
  - Exploratory Research Design
  - Conclusive Research Design
    - Descriptive Research
      - Cross-Sectional Design
    - Causal Research
      - Longitudinal Design
Table 3.1 Differences Between Exploratory and Conclusive Research

<table>
<thead>
<tr>
<th></th>
<th>Exploratory</th>
<th>Conclusive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>To provide insights and understanding.</td>
<td>To test specific hypotheses and examine relationships.</td>
</tr>
<tr>
<td><strong>Characteristics:</strong></td>
<td>Information needed is defined only loosely.</td>
<td>Information needed is clearly defined.</td>
</tr>
<tr>
<td></td>
<td>Research process is flexible and unstructured.</td>
<td>Research process is formal and structured.</td>
</tr>
<tr>
<td></td>
<td>Sample is small and non representative.</td>
<td>Sample is large and representative.</td>
</tr>
<tr>
<td></td>
<td>Data analysis is qualitative.</td>
<td>Data analysis is quantitative.</td>
</tr>
<tr>
<td><strong>Findings:</strong></td>
<td>Tentative.</td>
<td>Conclusive.</td>
</tr>
<tr>
<td><strong>Outcome:</strong></td>
<td>Generally followed by further exploratory or conclusive research.</td>
<td>Findings used as input into decision making.</td>
</tr>
</tbody>
</table>
### Table 3.2 A Comparison of Basic Research Designs

<table>
<thead>
<tr>
<th></th>
<th><strong>Exploratory</strong></th>
<th><strong>Descriptive</strong></th>
<th><strong>Causal</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective:</strong></td>
<td>Discovery of ideas and insights.</td>
<td>Describe market characteristics or functions.</td>
<td>Determine cause and effect relationships.</td>
</tr>
<tr>
<td><strong>Characteristics:</strong></td>
<td>Flexible.</td>
<td>Marked by the prior formulation of specific hypotheses.</td>
<td>Manipulation of one or more independent variables.</td>
</tr>
<tr>
<td></td>
<td>Versatile.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Often the front end of total research design.</td>
<td>Preplanned and structured design.</td>
<td>Control of other mediating variables.</td>
</tr>
<tr>
<td><strong>Method:</strong></td>
<td>Expert surveys.</td>
<td>Secondary data (quantitative).</td>
<td>Experiments.</td>
</tr>
<tr>
<td></td>
<td>Pilot surveys.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Case studies.</td>
<td>Panels.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary data (qualitative).</td>
<td>Observational and other data.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Qualitative Research.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 (discussed in Chapter 2)
- Pilot surveys (discussed in Chapter 2)
- Secondary data analyzed in a qualitative way (discussed in Chapter 4)
- Qualitative research (discussed in 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 perceptions of product characteristics
- 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 (discussed in Chapters 4 and 5)
- Surveys (Chapter 7)
- Panels (Chapters 5 and 7)
- Observational and other data (Chapter 7)
Figure 3.5. Major Types of Descriptive Studies

Descriptive Studies

Sales Studies
- Market Potential
- Market Share
- Sales Analysis

Consumer Perception and Behavior Studies
- Image
- Product Usage
- Advertising
- Pricing

Market Characteristic Studies
- Distribution
- Competitive Analysis

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Cross-sectional and Longitudinal Designs

- A cross-sectional design involves the collection of information from any given sample of population elements only once.
- In a longitudinal design, 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.
Figure 3.6
Cross-Sectional vs. Longitudinal Designs

Cross-Sectional Design

Sample Surveyed at T₁

Longitudinal Design

Sample Surveyed at T₁

Same Sample also Surveyed at T₂

Time

T₁

T₂
<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Cross-Sectional Design</th>
<th>Longitudinal Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detecting change</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Large amount of data collection</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Accuracy</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Representative sampling</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Response bias</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note: A + indicates a relative advantage over the other design whereas a - indicates a relative disadvantage.*
Uses of Casual 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
Figure 3.7 Some Alternative Research Designs

(a) Exploratory Research
- Secondary Data Analysis
- Focus Group

(b) Conclusive Research
- Descriptive/Causal

(c) Conclusive Research
- Descriptive/Causal

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Figure 3.8 Tasks Involved in a Research Design

- Define the Information Needed
- Design the Exploratory, Descriptive, and/or Causal Phases of the Research
- Specify the Measurement and Scaling Procedures
- Construct a Questionnaire
- Specify the Sampling Process and the Sample Size
- Develop a Plan of Data Analysis
International Marketing Research

- Given environmental and cultural differences, a research design appropriate for one country might not be suitable for another.

- In developing countries, consumer panels often are not available, which makes it difficult to conduct descriptive longitudinal research.

- In many countries, the marketing support infrastructure – retailing, wholesaling, advertising, and promotion development – is often lacking, which makes it difficult to implement a causal design involving a field experiment.
International Marketing Research (Cont.)

- In formulating a research design, considerable effort is required to ensure the equivalence and comparability of secondary and primary data obtained from different countries.
Marketing Research & Social Media

- One reason why social networks can be suitable for conducting marketing research is that they eliminate the onerous cost of building and maintaining traditional panels.
- The key is to analyze the characteristics of each social network and choose the network that most closely matches your research objectives.
Marketing Research & Social Media (Cont.)

- These network communities can be used to recruit marketing research panels and are distinguished by some key characteristics. Membership is voluntary and reputations are earned by winning the trust of other members. The community’s mission and governance is defined by the community’s members themselves.

- In contrast, in traditional marketing research panels in which users’ roles are determined by the researcher and governed by well defined regulations.
Online communities range from being open to public - Facebook, MySpace - to completely private, closed, by invitation-only.

Private communities are primarily built for discovery and insight purposes and are called MROCs (Marketing Research Online Communities).

Unlike public communities with no limit on the number of members, MROCs generally restrict membership.

Disney set up the Walt Disney Moms Panel featuring moms who answer questions about the company’s theme parks and vacation resorts from prospective visitors.
Ethics in Marketing Research

- The choice of a research design has ethical overtones for both the client and the research firm.
- Researchers must ensure that the research design will provide the information needed to address the marketing research problem.
- The client should have the integrity not to misrepresent the project, should describe the constraints under which the researcher must operate, and should not make unreasonable demands.
Ethics in Marketing Research (Cont.)

- It would be unethical for a client to extract details from a proposal submitted by one research firm and pass them to another who actually would do the project for the client.
- The client should not take advantage of the research firm by making false promises of future research contracts in order to solicit concessions for the current project.
Acronym: Design

The components of a research design may be summarized by the acronym DESIGN:

D ata analysis plan
E xploratory, descriptive, causal design
S caling and measurement
I nterviewing forms: questionnaire design
G enerating the needed information
N umber: Sample size and plan