Stages of the Research Process
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- Problem Discovery and Definition
- Research Design
- Sampling
- Data Gathering
- Data Processing and Analysis
- Discovery and Definition
- Conclusions and Report

and so on
Research Stages

• Cyclical process - conclusions generate new ideas
• Stages can overlap chronologically
• Stages are functionally interrelated
  – Forward linkages
  – Backward linkages
Step #1: Problem Definition

Indication of specific marketing decision area that will be clarified by answering some research questions
“The formulation of the problem is often more essential than its solution.”

--Albert Einstein
Iceberg Principle in Problem Definition

The dangerous part of many marketing problems is neither visible to nor understood by marketing managers.
Problem Definition Process

- Ascertain the decision maker’s objectives
  - Understand background of the problem
    - Isolate/identify the problem, not the symptoms
  - Determine unit of analysis
    - Determine relevant variables
    - State research questions and objectives
Ascertain Decision Maker’s Objectives

• Different yet reasonable objectives
  – e.g., immediate or long-run increase in sales or profits
• Managerial goals expressed in measurable terms
Understand Problem Background

- Exercising judgment
- Situation analysis: Informal gathering of background information to familiarize researchers or managers with the decision area
## Symptoms Can Be Confusing

<table>
<thead>
<tr>
<th>Organization</th>
<th>Symptoms</th>
<th>Problem Definition Based on Symptom</th>
<th>True Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twenty-year-old neighborhood swimming association in a major city</td>
<td>Membership has been declining for years. New water park with wave pool and water slides moved into town a few years ago.</td>
<td>Neighborhood residents prefer the more expensive water park and have a negative image of swimming pool.</td>
<td>Demographic changes: Children in this 20-year-old neighborhood have grown up; older residents no longer swim.</td>
</tr>
<tr>
<td>Manufacturer of palm-sized computer with wireless Internet access</td>
<td>Distributors complain prices are too high.</td>
<td>Investigate business users to learn how much prices need to be reduced.</td>
<td>Sales management: Distributors do not have adequate product knowledge to communicate product’s value.</td>
</tr>
<tr>
<td>Microbrewery</td>
<td>Consumers prefer the taste of competitor’s brand.</td>
<td>What type of reformulated taste is needed?</td>
<td>Package: Old-fashioned package influences taste perception.</td>
</tr>
</tbody>
</table>
Determine the Unit of Analysis

• Individuals, households, organizations, etc.

• In many studies, families rather than individuals are the appropriate unit of analysis
Determine Relevant Variables

- Anything that may assume different numerical values
- Types
  - Categorical
  - Continuous
  - Dependent
  - Independent
### Marketing Problem Translated into Research Objectives

<table>
<thead>
<tr>
<th>Marketing Management Problem/Questions</th>
<th>Research Questions</th>
<th>Research Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should the retail chain store offer in-home shopping via the Internet?</td>
<td>Are consumers aware of Internet home shopping systems?</td>
<td>To determine consumer awareness with aided recall</td>
</tr>
<tr>
<td></td>
<td>What are consumers’ reactions to Internet shopping?</td>
<td>To measure consumer attitudes and beliefs about home shopping systems</td>
</tr>
<tr>
<td>In which of several possible forms should the service be offered?</td>
<td>How do consumers react to service form A? B? C?</td>
<td>To obtain ratings and rankings of each form of service</td>
</tr>
<tr>
<td></td>
<td>What are the perceived benefits of each form of service?</td>
<td>To identify perceived benefits of and perceived objections to the system</td>
</tr>
<tr>
<td>What market segment should be the target market?</td>
<td>Will consumers use the service?</td>
<td>To measure purchase intentions; to estimate likelihood of usage</td>
</tr>
<tr>
<td></td>
<td>How often?</td>
<td>To compare—using cross-tabulations—levels of awareness, evaluations, purchasing</td>
</tr>
<tr>
<td></td>
<td>Do the answers to the above questions differ depending on demographic group?</td>
<td>intentions, etc., of men versus women, high-income versus low-income groups, young</td>
</tr>
<tr>
<td></td>
<td>Who are the best prospects?</td>
<td>consumers versus older consumers, etc.</td>
</tr>
<tr>
<td>What pricing strategy should we follow?</td>
<td>How much do prospective customers think the service will cost?</td>
<td>To ascertain consumers’ knowledge and expectations about prices</td>
</tr>
<tr>
<td></td>
<td>Do prospective customers think this product will be priced higher or lower than</td>
<td>To learn how the price of this service is perceived relative to competitors’ pricing</td>
</tr>
<tr>
<td></td>
<td>competitive offerings?</td>
<td>To determine the perceived value of the service</td>
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<td></td>
<td>Is the product perceived as a good value?</td>
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Problem Definition: Research Objectives and Research Questions

Problem Setting A: A Consumer Package Goods Firm

Project: A major package goods firm is deciding on whether to continue development of a new “hard candy” product. The new product is a line extension offering a distinctive new ingredient that should be attractive to at least some category users. Brand managers want to collect information on the likely success of the new product.

Research Objective: To determine the likely market success of a new “hard candy” product containing ingredient X and its relation to existing products.

Possible Research Questions:
1. What volume and market share will the new product achieve when it is rolled out nationally?
2. What trial rate can be expected?
3. Will the new product cannibalize existing products in our line?
4. Which existing products does the new product draw its share from?
5. Are there segments of consumers who have a greater likelihood of trying the new product?
6. Are there segments of consumers who are particularly attracted to the new ingredient?
Problem Definition: Research Objectives and Research Questions

Problem Setting B: A Fast Food Chain

Project: The corporate management of a national fast food chain wanted to determine whether customer perceptions of service are uniform across their franchises. The parent corporation has followed a policy of minimizing variation in services provided. The intent of management is to assess whether customer perceptions of services is consistent with corporate standards.

Research Objective: To evaluate customers' perceptions of the services provided by franchise operators and to identify areas that need attention.

Possible Research Questions:
1. What is the relevant set of service features that franchises should be evaluated on?
2. What is the perceived value of each service feature?
3. Do perceptions of services vary by meal?
4. Does the value of a service feature vary by meal?
5. Are there regional differences across franchises in terms of services provided?
6. What factors contribute to any differences that are observed?
Problem Definition for New Coke

What does the manager know about the situation?
On a blind-test basis, cola drinkers prefer sweeter colas, hence Pepsi-Cola was preferred to Coke in blind taste-tests.

What assumptions are being used?
In order to counter the “Pepsi Challenge” campaign, Coke needs to be perceived as being sweeter.

Are the assumptions reasonable?
Before actual in-market distribution, blind taste-tests and in-home use tests appear to be the best approach to take to assess ultimate market acceptance.

If the assumptions turn out to be unrealistic, how does this affect what is to be expected?
The assumption is that a sweeter, better-tasting cola will lead to increased market share and will not alienate Coke’s loyal franchise. If this assumption is unrealistic, market share could decrease.

Is anyone on the research team biased?
No! But blind acceptance of the taste testing program as the sole determinant of in-market acceptance could bias management in favor of introducing a sweeter formulation.

How precise does the information need to be?
Very precise—therefore a controlled testing program is needed.

Will precision affect the choice of an alternative?
Yes. The reformulated cola most preferred to old Coke and to Pepsi will be the winner.
Basic Questions---Problem Definition

• What is the purpose of the study?
• How much is already known?
• Is additional background information necessary?
• What is to be measured? How?
• Can the data be made available?
• Should research be conducted?
• Can a hypothesis be formulated?
Hypothesis

A statement that can be refuted by empirical data
Secondary (historical) Data
Pilot Study
Experience Survey
Case Study

Exploratory Research
Hypothesis Development.

- Research purpose
- Research question
- Management experience
- Exploratory research
- Theory

Hypotheses:

Research design
Step #2: Research Design

- Master plan
- Framework for action
- Specifies methods and procedures
Basic Questions--
Basic Research Design

- What types of questions need answering?
- Are descriptive or causal findings required?
- What is the data source?
- Are objective answers available by asking people?
- How quickly is information needed?
- How should survey questions be worded?
- How should experimental manipulations be made?
<table>
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<tr>
<th>Decisions to Make</th>
<th>Basic Questions</th>
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<td>Problem definition</td>
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<td>What is to be measured?</td>
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<td>How?</td>
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<td></td>
<td>Can the data be made available?</td>
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<td></td>
<td>Should research be conducted?</td>
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<td></td>
<td>Can a hypothesis be formulated?</td>
</tr>
<tr>
<td>Selection of basic research design</td>
<td>What types of questions need to be answered?</td>
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<td>Are descriptive or causal findings required?</td>
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<td>How should experimental manipulations be made?</td>
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<td>Selection of sample</td>
<td>Who or what is the source of the data?</td>
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<td>Can the target population be identified?</td>
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<td>Is a sample necessary?</td>
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<td>How accurate must the sample be?</td>
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<td>Is a probability sample necessary?</td>
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<td>Is a national sample necessary?</td>
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<td>How large a sample is necessary?</td>
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<td>How will the sample be selected?</td>
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<tr>
<td>Data gathering</td>
<td>Who will gather the data?</td>
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<td></td>
<td>How long will data gathering take?</td>
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<td></td>
<td>How much supervision is needed?</td>
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<td></td>
<td>What procedures will data collectors need to follow?</td>
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<tr>
<td>Data analysis and evaluation</td>
<td>Will standardized editing and coding procedures be used?</td>
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<td>How will the data be categorized?</td>
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<td>Will computer or hand tabulation be used?</td>
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<td></td>
<td>What is the nature of the data?</td>
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<td>What questions need to be answered?</td>
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<td>How many variables are to be investigated simultaneously?</td>
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<td>What are the criteria for evaluation of performance?</td>
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<tr>
<td>Type of report</td>
<td>Who will read the report?</td>
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<td>Are managerial recommendations requested?</td>
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<td>How many presentations are required?</td>
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<td>What will be the format of the written report?</td>
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<tr>
<td>Overall evaluation</td>
<td>How much will the study cost?</td>
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<td>Is the time frame acceptable?</td>
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<td>Is outside help needed?</td>
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<td>Will this research design attain the stated research objectives?</td>
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<td>When should the research begin?</td>
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Step #3: Selecting a Sample

Sample: Subset of larger population
Basic Questions-- Selecting a Sample

• Who or what is the source of the data?
• Can the target population be identified?
• Is a sample necessary?
• How accurate must the sample be?
• Is a probability sample necessary?
• Is a national sample necessary?
• How large a sample is necessary?
• How will the sample units be selected?
Step #4: Data Gathering Stage
Basic Questions--Data Gathering

• Who will gather the data?
• How long will data gathering take?
• How much supervision is needed?
• What operational procedures need to be followed?
Step #5: Data Processing and Analysis
Basic Questions--Data Analysis

- Will standardized editing and coding procedures be used?
- How will the data be categorized?
- What statistical software will be used?
- What is the nature of the data?
- What questions need to be answered?
- How many variables are to be investigated simultaneously?
Step #6: Conclusions and Report Writing

Effective communication of the research findings
Basic Questions--Type of Report

- Who will read the report?
- Are managerial recommendations requested?
- Are presentations are required? If so, how many and to which people?
- What format will the written report take?
Anticipating Outcomes

Dummy Tables

• Representations of actual tables in findings section of final report; used to gain better understanding of actual research outcomes
Basic Questions--
Overall Evaluation

• How much will study cost?
• Is time frame acceptable?
• Is outside help needed?
• Will research design attain stated research objectives?
• When should research begin?
Checklist for Evaluating Research Studies

1. Objectives of the study
   ____ Did they relate to the problem(s)?
   ____ Have they been reasonably achieved?

2. Research study design
   ____ Were the hypotheses relevant and reasonable?
   ____ Was the design a logical and practical bridge from problem to solution?
   ____ Was the design unbiased so as not to have influenced the results?
   ____ Did the study reasonably meet the requirements and constraints of the project?
   ____ Was the study well administered?

3. Methodology
   ____ Were the right sources of information used?
   ____ Secondary?
   ____ Primary?
   ____ Were precautions taken to avoid errors or bias in the data collection? Do they seem adequate?
   ____ How representative was the sample (if sampling was used)?
   ____ What precautions were taken to avoid errors in processing the data?
   ____ Were the categories used in tabulation and cross tabulation meaningful?
   ____ Were any important analyses overlooked?

4. Presentation and recommendations
   ____ Is the report well done in organization and content?
   ____ Do the interpretation and recommendations follow from the data?
   ____ Are the recommendations well supported?
   ____ Are the findings and conclusions consistent with other existing information, such as other studies of executives’ experiences? If not, is the explanation for this logical?
   ____ Do the conclusions and recommendations relate to the objectives of the study?
   ____ Were any relevant problem areas and interpretations overlooked?

5. Action and follow-up
   ____ Is further information needed? If so, in what areas?
   ____ Is responsibility for follow-up clearly designated?
Recap

Marketing research process includes:

• Identifying the problem
• Specifying required information
• Designing data collection method
• Managing and implementing data collection
• Analyzing results
• Communicating findings and their implications
Sample Research Plan Outline

<table>
<thead>
<tr>
<th><strong>Defined Problem:</strong></th>
<th>Measurement of market share for brands of selected consumer products in the primary viewing area for television station WRJD.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Hypothesis:</strong></td>
<td>Market share is higher for brands of consumer products advertised on WRJD.</td>
</tr>
<tr>
<td><strong>Research Objective:</strong></td>
<td>To measure changes in market share for brands of selected consumer products in WRJD’s primary viewing area.</td>
</tr>
<tr>
<td><strong>Operational Definitions:</strong></td>
<td>Market share, product categories and sizes, and the primary viewing area for WRJD need to be defined explicitly.</td>
</tr>
<tr>
<td><strong>Research Type:</strong></td>
<td>Descriptive method utilizing cross-sectional approach.</td>
</tr>
<tr>
<td><strong>Method of Data Collection:</strong></td>
<td>Structured, nondisguised questionnaire (diary and retail audit).</td>
</tr>
<tr>
<td><strong>Mode of Data Gathering:</strong></td>
<td>Self-administered diary using 400 households and a retail audit of stores representing 90 percent of the sales for the selected consumer product categories over an 8-week period of time.</td>
</tr>
<tr>
<td><strong>Sample Design:</strong></td>
<td>Quota sample stratified in terms of family income to maintain representativeness with primary viewing area.</td>
</tr>
<tr>
<td><strong>Data Preparation:</strong></td>
<td>Development of appropriate editing, coding, and processing procedures.</td>
</tr>
<tr>
<td><strong>Data Analysis:</strong></td>
<td>Simple tabulations and selected cross-tabulations by income strata.</td>
</tr>
<tr>
<td><strong>Presentation:</strong></td>
<td>Written presentation with slides.</td>
</tr>
</tbody>
</table>