

Marketing Research

Chapter 5

Problem Definition: Jump-Starting the Research Process

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LEARNING OUTCOMES

After studying this chapter, you should be able to

1. Explain why proper “problem definition” is essential to useful marketing research
2. Know how to recognize problems
3. Translate managerial decision statements into relevant research objectives
4. Translate research objectives into research questions and/or research hypotheses
5. Outline the components of a research proposal.
6. Construct dummy tables as part of a research proposal

Importance of Starting with a Good Problem Definition

- Decision Statement
 - A written expression of the key question(s) that the research user wishes to answer.
- Problem Definition
 - The process of defining and developing a decision statement and the steps involved in translating it into more precise research terminology, including a set of research objectives.
 - Problem definition seeks to state research questions clearly and to develop well-formulated, specific hypotheses.

Problem Complexity

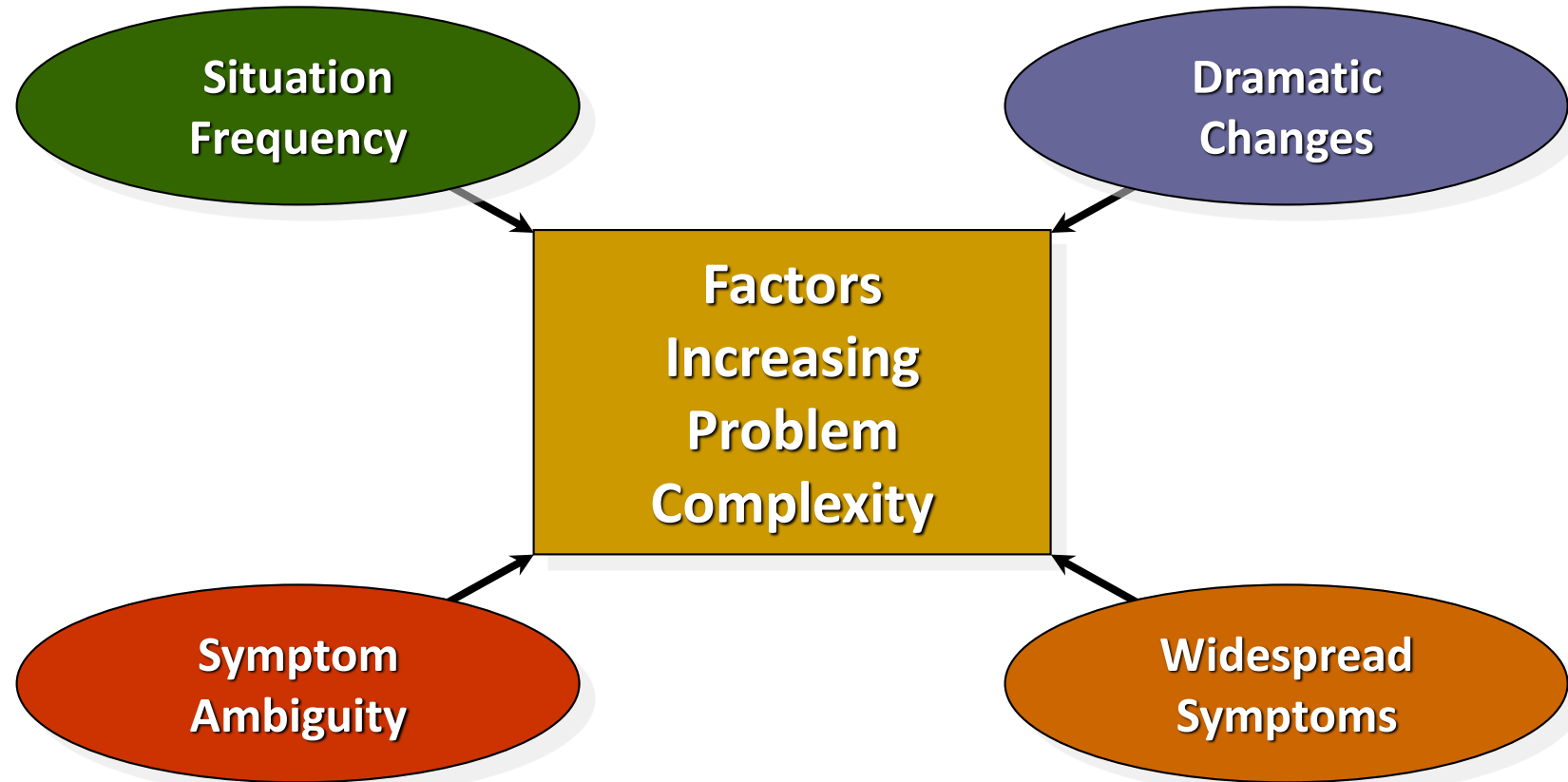
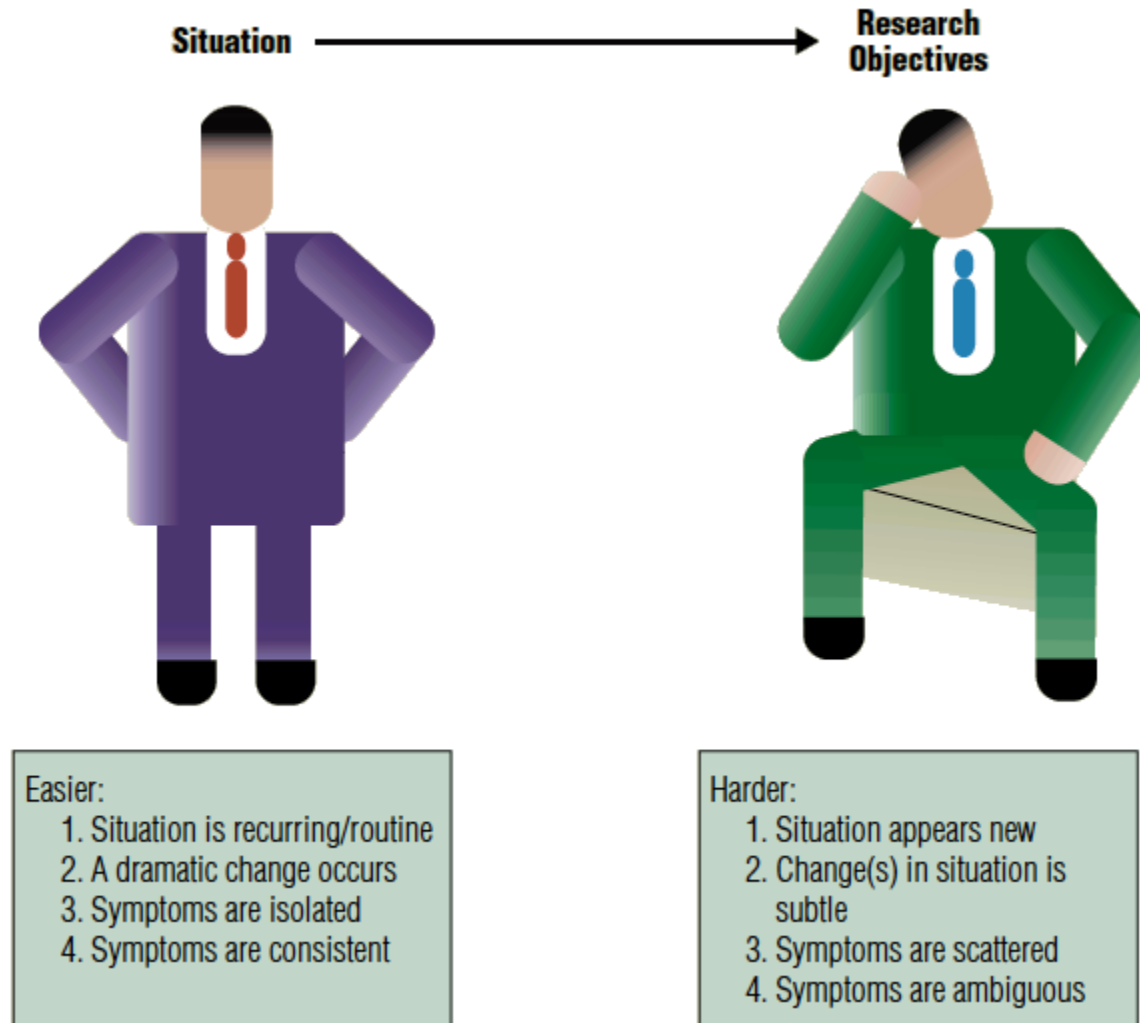


EXHIBIT 5.1

Defining Problems Can Be Difficult



The Problem-Definition Process

- Problem
 - When there is a difference between the current conditions and a more preferable set of conditions.
- Problems Mean Gaps
 - Business performance is worse than expected business performance.
 - Actual business performance is less than possible business performance.
 - Expected business performance is greater than possible business performance.

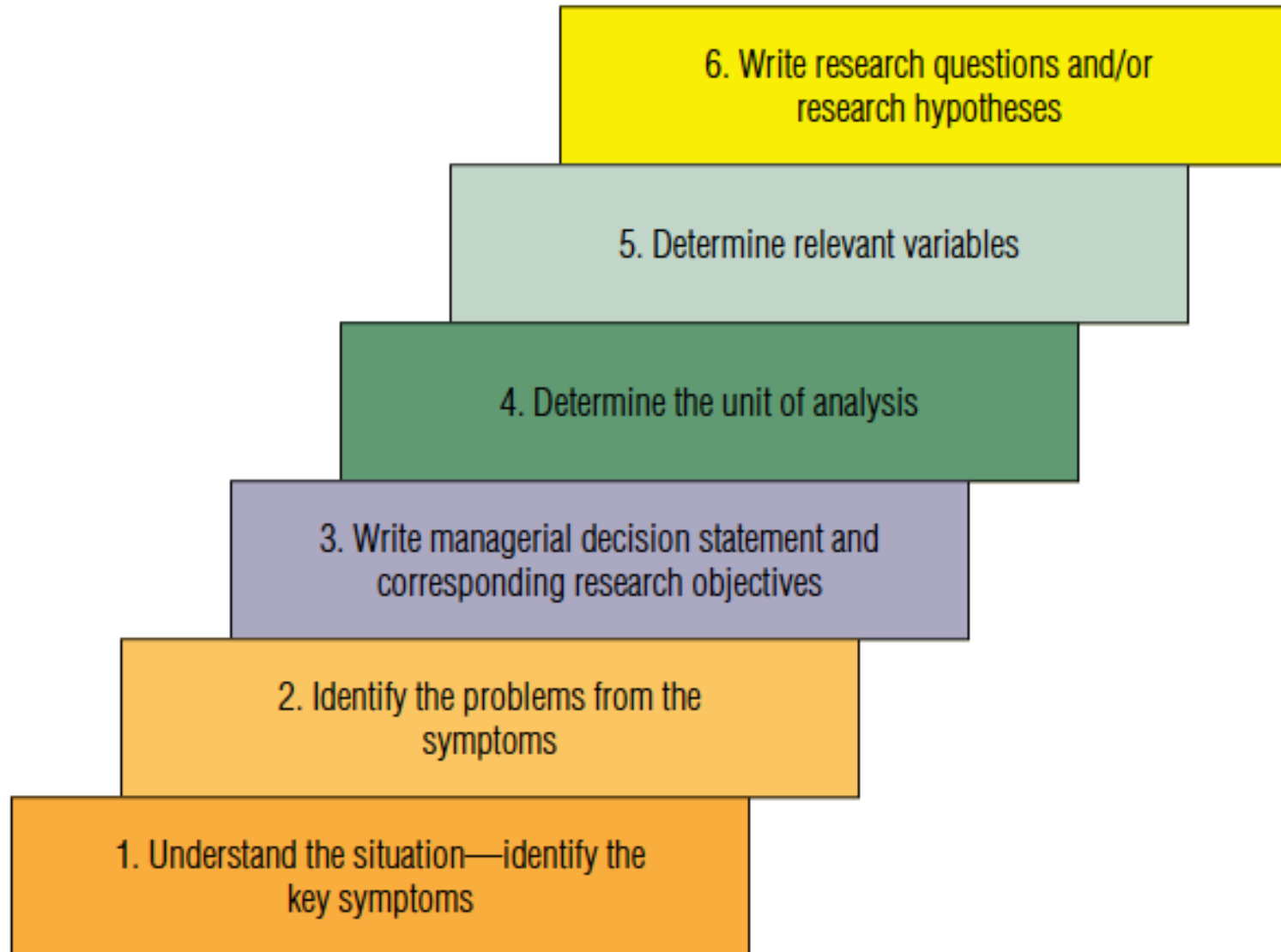
The Problem-Definition Process Steps

1. Understand the business situation—identify key symptoms
2. Identify key problem(s) from symptoms
3. Write managerial decision statement and corresponding research objectives
4. Determine the unit of analysis
5. Determine the relevant variables
6. Write research questions and/or research hypotheses

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?

EXHIBIT 5.2 The Problem-Definition Process



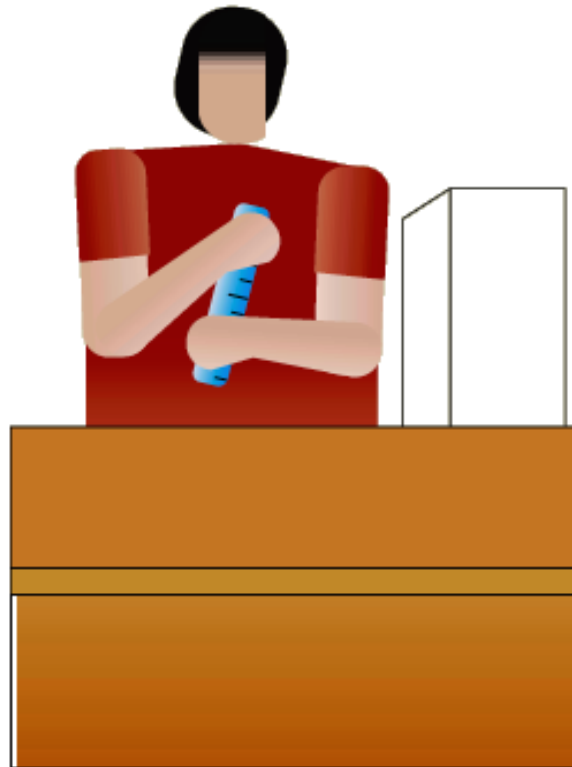
Understand the Business Decision

- Situation Analysis
 - The gathering of background information to familiarize researchers and managers with the decision-making environment.
- Interview Process
 - Develop many alternative problem statements.
 - Think about potential solutions to the problem.
 - Make lists. Use free-association techniques to generate lists of ideas.
 - Be open-minded. It is important to consider all ideas as plausible in the early stages of problem solving.

Understand the Business Decision

- Identifying Symptoms
 - Interrogative techniques
 - Asking multiple what, where, who, when, why, and how questions about what has changed.
 - Probing
 - An interview technique that tries to draw deeper and more elaborate explanations from the discussion.
- Identifying the Relevant Issues from the Symptoms
 - The interview process is useful in translating the decision situation into a working problem definition by focusing on symptoms.

EXHIBIT 5.3 What Has Changed?



Question: What changes have occurred recently?

Probe: Tell me about this change.

Probe: What has brought this about?

Problem: How might this be related to your problem?

Question: What other changes have occurred recently (i.e., competitors, customers, environment, pricing, promotion, suppliers, employees, etc.)?

Continue Probing



EXHIBIT 5.4 Symptoms Can Be Confusing

	Firm's Situation	Symptoms	Probable Problem	Decision Statement
RESEARCH ACTION	Conduct Situation Analysis including interviews with key decision makers		Consider results of probing and apply creative processes	Express in actionable terms and make sure decision makers are in agreement
SITUATION 1	22-year-old neighborhood swimming association seeks research help	<ul style="list-style-type: none"> • Declining Membership for 6 years • Increased attendance at new water park • Less frequent usage among members 	Swim facility is outdated and does not appeal to younger families. Younger families and children have a negative image of pool. Their "old market" is aging.	What things can be done to energize new markets and create a more favorable attitude toward the association?
SITUATION 2	Manufacturer of palm-sized computer with wireless Internet access believes B2B sales are too low	<ul style="list-style-type: none"> • Distributors complain prices are too high • Business users still use larger computers 	<ul style="list-style-type: none"> • Business users do not see advantages of smaller units • Advantages are not outweighed by costs • Transition costs may be a drawback for B2B customers more than for B2C customers 	What things can be done to improve competitive positioning of the new product in B2B markets?

EXHIBIT 5.4 Symptoms Can Be Confusing (cont'd)

	Firm's Situation	Symptoms	Probable Problem	Decision Statement
RESEARCH ACTION	Conduct Situation Analysis including interviews with key decision makers		Consider results of probing and apply creative processes	Express in actionable terms and make sure decision makers are in agreement
SITUATION 3	A new micro-brewery is trying to establish itself	<ul style="list-style-type: none"> • Consumers seem to prefer national brands over the local microbrew products • Many customers order national brands within the microbrew itself • Some customers hesitant to try new microbrew flavors 	<p>Is there a negative flavor gap?</p> <p>Do consumers appreciate the micro-brew approach and the full beer tasting (as opposed to drinking) experience?</p>	<p>How can we encourage more consumers to come to the microbrew and try our products?</p> <p>Should we redesign the brewery to be more inviting?</p>

Writing Managerial Decision Statements and Corresponding Research Objectives

- Decision statements must be translated into research objectives.
 - Once the decision statement is written, the research essentially answers the question, “What information is needed to address this situation?”.
- Research objectives are the deliverables of the research project.

EXHIBIT 5.5 Translating Decision Statements

	Decision Statement	Research Objectives	Research Questions	Research Hypotheses
RESEARCH ACTION	Express in actionable terms and make sure decision makers are in agreement	Expresses potential research results that should aid decision-making	Ask a question that corresponds to each research objective	Specific statement explaining relationships, usually involving two variables, and including the direction of the relationship
SITUATION 1	What things can be done to energize new markets and create a more favorable attitude toward the association?	Determine reasons why families may choose to join or not join a “swim club.”	How do the type of facilities and pricing relate to family attitudes toward a swim facility?	<p>Child-friendly <i>pool designs</i> are positively related to <i>attitudes toward the facility</i>.</p> <p>Flexible <i>pricing policies</i> are positively related to <i>attitudes toward the facility</i>.</p>
SITUATION 2	What product features can be improved and emphasized to improve competitive positioning of the new product in B2B markets?	List actions that may overcome the objections (switching costs) of B2B customers toward adoption of the new product.	What are the factors that most lead to perceptions of high switching costs?	<p><i>Perceived difficulty</i> in learning how to use the new device is related to <i>switching costs</i>.</p> <p><i>Price</i> is positively related to <i>switching costs</i>.</p> <p><i>Knowledge</i> of new product is positively related to <i>switching costs</i>.</p>

EXHIBIT 5.5 Translating Decision Statements (cont'd)

	Decision Statement	Research Objectives	Research Questions	Research Hypotheses
RESEARCH ACTION	Express in actionable terms and make sure decision makers are in agreement	Expresses potential research results that should aid decision-making	Ask a question that corresponds to each research objective	Specific statement explaining relationships, usually involving two variables, and including the direction of the relationship
SITUATION 3	<p>How can we encourage more consumers to come to the microbrew and try our products?</p> <p>Should we redesign the brewery to be more inviting?</p>	<p>Describe how situational factors influence beer consumption and consumer attitudes toward beer products.</p> <p>List factors that will improve attitudes toward the microbrewery.</p>	Do situational factors (such as time of day, food pairings, or environmental factors) relate to taste perceptions of beer?	<p>Microbrew beer is <i>preferred</i> when consumed <i>with food</i>.</p> <p>An exciting <i>atmosphere</i> will improve consumer <i>attitudes toward the microbrew</i>.</p>

Determine the Unit of Analysis

- Unit of Analysis
 - Indicates what or who should provide the data and at what level of aggregation.
 - Individuals (such as customers, employees, and owners)
 - Households (families, extended families, and so forth)
 - Organizations (businesses and business units)
 - Departments (sales, finance, and so forth)
 - Geographical areas
 - Objects (products, advertisements, and so forth).

Determine the Relevant Variable

- What is a Variable?
 - Anything that varies or changes from one instance to another; can exhibit differences in value, usually in magnitude or strength, or in direction.
- What is a Constant?
 - Something that does not change; is not useful in addressing research questions.

Types of Variables

- Continuous variable
 - Can take on a range of quantitative values.
- Categorical variable
 - Indicates membership in some group.
- Classificatory variable
 - Classifies units into categories.
- Dependent variable
 - A process outcome or a variable that is predicted and/or explained by other variables.
- Independent variable
 - A variable that is expected to influence the dependent variable in some way.

EXHIBIT 5.6 Common Marketing Problems, Corresponding Research Hypotheses, and Variable Descriptions

Managerial Decision	Research Question(s)	Research Hypotheses	Categorical Variable(s)	Continuous Variable(s)
Retail grocer considering web-based delivery service	<p>Is there sufficient demand?</p> <p>Will delivery influence customer perceptions of quality?</p> <p>Will delivery service (new retail form) cannibalize current business?</p>	<p><i>Projected sales volume will exceed \$5 M annually.</i></p> <p><i>Retail form influences quality perceptions such that web (in-store) customers perceive lower (higher) quality.</i></p> <p><i>Web customers express lower intentions to visit store than other customers.</i></p>	Retail Form (independent variable)—classifies respondents based on whether they shopped (1) in-store or (2) via the web (delivery).	<p>Sales Volume—dollar amount based on a test trial in one geographic market (i.e., Phoenix/Scottsdale).</p> <p>Intentions to visit store (dependent variable)—the percentage likelihood that a survey respondent would visit the store within the next 7 days.</p>
What market segments should be served?	<p>Does nationality matter? Will French and German consumers express interest in our product?</p> <p>Does the attitude toward Korean companies influence purchase intentions?</p>	<p><i>French consumers have more interest in purchasing our product than German consumers.</i></p> <p><i>Attitude toward Korean companies is related positively to product purchase interest.</i></p>	Nationality (independent variable)—represents which country a survey respondent lives in: (1) France (2) Germany	<p>Attitude toward Korean companies (independent variable)—ratings scale that describes how favorably survey respondents view Korean companies (quality, reputation, value; higher scores mean better attitude)</p> <p>Product purchase interest—ratings scale that shows how interested a consumer is in buying the Korean product (higher scores = more interest)</p>

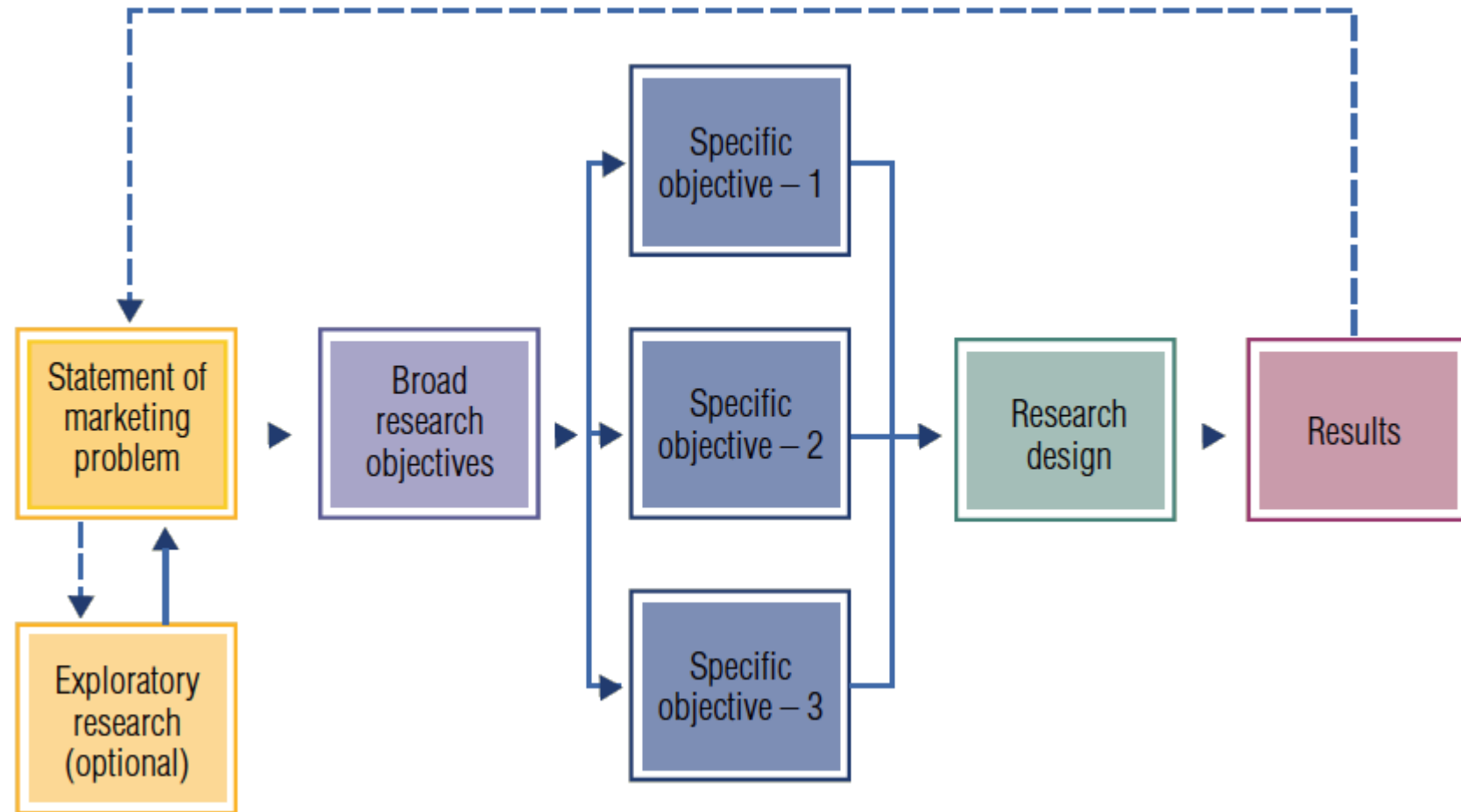
Write Research Objectives and Questions

- Research Questions
 - Express the research objectives in terms of questions that can be addressed by research.
 - Help to develop well-formulated, specific hypotheses that can be empirically tested
 - Help the researcher design a study that will produce useful results.

Clarity in Research Questions and Hypotheses

- Research Questions
 - The researcher's translation of the marketing problem into a specific inquiry
 - Provide input that can be used as a standard for selecting from among alternative solutions.
- Hypotheses
 - Statements that can be empirically tested
 - State what is expect to be found through the study
- Managerial Action Standard
 - A specific performance criterion upon which a decision can be based.

EXHIBIT 5.7 Influence of Decision Statement of Marketing Problem on Research Objectives and Research Designs



Based on *A General Taxpayer Opinion Survey*, Office of Planning and Research, Internal Revenue Service, March 1980.

How Much Time Should Be Spent on Problem Definition?

- Budget constraints usually influence how much effort is spent on problem definition.
- The more important the decision faced by management, the more resources should be allocated toward problem definition.
- The time taken to identify the correct problem is usually time well spent.

The Research Proposal

- Research Proposal
 - A written statement of the research design
- Uses for the Proposal
 - As a planning tool
 - As a contract
- Funded Marketing Research
 - Basic research usually performed by academic researchers that is financially supported by some public or private institution as in federal government grants.

Anticipating Outcomes

- Dummy Tables
 - Tables placed in research proposals that are exact representations of the actual tables that will show results in the final report with the exception that the results are hypothetical (fictitious).
 - Assist in recognizing the types of research findings necessary to make specific decisions about anticipated results
 - Help identify missing key variables and irrelevant dependent variables in the research model.

EXHIBIT 5.10 Regression Table: Results Showing which Variables Determine Restaurant Customer's Loyalty (Patronage Frequency)

Independent Variable	Standardized Regression Coefficient	Rank (Importance in Determining Frequency)	Mean Score Rank (How Lagasto's Ranks Compared to Ten Closest Competitors)
Food Quality	.50**	1	6
Pleasant Atmosphere	.45**	2	7
Service Quality	.30**	3	5
Wine and Beverage Quality	.25**	4	8
Convenience of Location	.15*	5	3
Advertising	.05	6	4
Menu Prices	-.05	7	2

* P-VALUE < .001
 ** P-VALUE < .05

Key Terms and Concepts

- Decision statement
- Problem definition
- Problem
- Situation analysis
- Interrogative techniques
- Probing
- Unit of analysis
- Variable
- Constant
- Continuous variable
- Categorical variable
- Classificatory variable
- Dependent variable
- Independent variable
- Research questions
- Managerial action standard
- Research proposal
- Funded marketing research
- Dummy tables

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Thank you