

PROBLEM-DEFINITION IN MARKETING RESEARCH STUDIES

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How can a problem be defined to provide guidance for the efficient and effective design of a marketing research study? In this article, an approach is described that assists a decision maker and a marketing research analyst in problem-definition in marketing research studies. This approach has two components. The first phase involves formulating an explicit single-sentence Research Objective statement to guide the marketing research effort. In the second phase, a series of Research Questions are developed. Answers to these Research Questions, individually and in total, result in the achievement of the Research Objective. A number of examples are used to illustrate this Research Objective/Research Questions approach to problem-definition.

The Problem-Definition Problem

"When a man does not know what harbor he is seeking, no wind is the right one." - Seneca (Roman philosopher)

Problem-definition is the most important stage in the marketing research process. Poor problem-definition can expose research to a range of undesirable consequences, including incorrect research designs, inappropriate or needlessly expensive data collection, assembly of incorrect or irrelevant data, and choice of the wrong population to sample. Notwithstanding its importance, problem-definition is elusive in many marketing research studies.

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Why is it difficult to arrive at a clear problem-definition statement in marketing research studies? To answer this question, it is useful to identify two key participants in a typical research study: the decision maker and the marketing research analyst. The decision maker has a problem and the resources and inclination to study it. The decision maker is presumed to make decisions that are based, at least partially, on the results of the marketing research effort. The analyst conducts or manages the marketing research effort. The decision maker and the analyst may, of course, be the same person, but usually these roles are assumed by different individuals. The analyst may be an external marketing research supplier or consultant.

Problem-definition may be especially elusive when the decision maker deliberately misleads the analyst.

The problem-definition stage of marketing research is seldom accorded the complete respect it merits. A general presumption seems to exist that marketing problems are known, easy to define, and clear to all concerned. Experience suggests just the opposite, however.

Often the decision maker does not know what the precise problem is. There may only be a feeling that something is wrong, or perhaps a sense that some marketing research "would be a good idea right now." Problems don't usually arrive labeled "Beware: There is a problem here" or "Attention: This is THE problem." Instead, problems are usually "buried under a heap of symptoms, memos, records, opinions, and egos."¹ Sometimes marketing research is mandated by particular organizational circumstances: "We always do study X in situation Y." However, these are special cases where problem-definition has been made almost automatic by organizational decree or custom.

Problem-definition may involve a subtle sorting of symptoms from true problems. For example, however troublesome a sales volume decline might be, such a decline is only a symptom of some underlying problem(s), and not the problem itself. The source of a sales volume decline could be found in pricing policies, product or service design considerations, distribution

difficulties, or communications problems. Competitive factors could also be relevant. These possibilities are so broad as to make it impossible to conduct systematic marketing research efficiently and effectively.

A decision maker may rely heavily on an analyst to help work out a problem's full scope, prior to and during the marketing research process. In such a situation, exploratory research (literature reviews, analysis of selected cases, consultations with "known" experts, and focus groups) may be crucial to establish the true nature of the problem and to lead to a research design that adequately addresses the problem.

Problem-definition may be especially elusive when the decision maker deliberately misleads the analyst. For example, to obtain "official" evidence to support a predetermined marketing program initiative, a decision maker might not wish to reveal his or her hand too early to an analyst. If the decision maker reveals such information, the analyst might wisely refrain from participating in a research venture that has no chance of influencing a preordained decision. Alternatively, a decision maker might deliberately mislead an analyst to provide an excuse to delay a potentially adverse decision. A skilled organizational gamesperson may call for marketing research as a delaying tactic, hoping that events in the interim before its completion will lead to a more "favorable" decision outcome.

Marketing research studies designed without a precise problem-definition exhibit a variety of symptoms. These include extensive iteration and review of study proposals and research designs, difficulty in arriving at a suitable questionnaire agreeable to all relevant constituencies, and substantial "data mining" for "interesting" relationships once the data are assembled. The "Well, it's interesting BUT ..." response by a decision maker to a final marketing research study report may be a telling (and deadly!) signal of a poorly defined marketing research effort.

Since the sources of problem-definition difficulty are diffuse, the quest for a single all-purpose prescription is unlikely to meet with success. The following proposal for reducing the incidence of poor problem-definition is procedural in nature. It is a specific tactic to help the decision maker and the analyst get a marketing

research effort off on the right foot. The proposed approach has two components. The first phase involves formulating an explicit single-sentence Research Objective statement to guide the marketing research effort. In the second phase, a series of Research Questions are developed. Answers to these Research Questions, individually and in total, result in the achievement of the Research Objective. (There may be an additional phase in survey research, since the Research Questions will be translated into question formats suitable for inclusion in a questionnaire.)

The Research Objective/Research Questions Approach to Problem Definition

“Plans are nothing. Planning is everything.”
Dwight Eisenhower

The Research Objective statement is a single-sentence description of the purpose of the marketing research effort. It guides everything else that follows; it is the *raison d'être* for the study. The Research Questions are a set of questions that must be answered by the marketing research effort. Relevant forms of these Research Questions include “Who ... ?” “What ... ?” “Why ... ?”, “When ... ?” “Where ... ?” and “How ... ?” Some Research Questions may be cast in terms of hypotheses (for example, “Is pricing or delivery reliability more important to our high-volume customers?”). The development of answers to the Research Questions, individually and in total, signify that the Research Objective has been achieved.

The Research Objective/Research Questions approach is meant to be followed at the problem-definition stage, not during the research design stage. In embracing this approach, there is no decision made or implied as to the appropriate combination of exploratory, survey, and experimental research within the actual study. This approach only serves to delineate the boundaries of the marketing research effort. It does provide guidance to the research design stage since the research effort must be specifically oriented to providing answers to the Research Questions and, ultimately, to achieving the Research Objective.

The Research Objective/Research Questions approach emphasizes the importance of maximizing conceptual thinking at the initial stage of marketing research, rather than after the data are collected. The advantage of conceptualization at the beginning is obvious: the correct study will be done and appropriate data will be assembled. Both efficiency and effectiveness of marketing research efforts will be enhanced if an agreed upon Research Objective and associated set of Research Questions are explicitly formulated before the marketing research is designed. Once primary data collection has begun, for example, there is rarely an opportunity to gather additional data from survey respondents, unless the whole study is redone. New Research Questions (issues, possibilities, avenues, etc.) discovered after data collection has begun may not be of any value.

The quest for a single all-purpose prescription is unlikely to meet with success.

The Research Objective/Research Questions approach serves as an implicit contract by describing what the marketing research study must accomplish. As our examples will illustrate, the clear delineation of a Research Objective statement and a corresponding set of Research Questions also serves an important role as a communications device to relevant “others” outside of the main participants in a research study.

The involvement of the appropriate decision maker in the formulation of the Research Objective statement and the series of relevant Research Questions is of fundamental importance. This early involvement increases the probability that the decision maker/client will accept and act upon the results of the study. It also emphasizes to the decision maker that he or she has responsibilities for actively helping to give direction and assistance to the design of the marketing research study.

A Research Objective statement and associated Research Questions are not meant to be cast in stone as the research progresses. Initial delineations should be attempted even before any exploratory research is conducted. The Research

Objective and Research Questions are then modified appropriately as the exploratory research progresses. Before a survey or an experiment is conducted, they are reformalized once again to guide such a large-scale marketing research effort.

To implement this approach to problem-definition, the analyst and the decision maker must have a series of discussions. An iterative process is required, because a precise Research Objective statement may not be formulated without some review of literature (trade industry journals, organizational documents, etc.) and some discussion with relevant "others" (anyone potentially knowledgeable about the apparent problem). This iterative approach will consist of: (a) the decision maker and the analyst jointly formulating a tentative Research Objective statement; (b) the analyst conducting some exploratory research to flush out the nature of the problem under study (to test out the appropriateness of the tentative Research Objective statement, as well as developing possible Research Questions); and (c) the decision maker and the analyst jointly revising the Research Objective statement and formalizing the Research Questions in light of the exploratory research. Depending on the success of step (b), step (c) might lead to closure, or to a need for further exploratory work to refine the Research Objective and Research Questions still further.

The analyst should begin by accepting a decision maker's tentative problem-definition statement, but must be careful not to take a proposed research design as the starting point. "I want to do a survey of ..." doesn't provide sufficient background to define a problem fully.

If a decision maker is unable to provide an initial problem definition statement, the analyst might pose questions such as the following: "What is the basic problem here?" "Why do you feel uneasy and in need of research?" "What do (don't) we know about the situation?" The answers to these questions should lead to a tentative problem definition statement.

All concerned should beware of adopting too broad a tentative problem-definition statement, or meaningful progress toward its resolution may not be possible. For example, the question "How can we become more profitable?" is

incredibly broad and would presumably require large-scale marketing research efforts (and a huge budget!). A decision maker posing such a general problem statement should be carefully challenged to ensure that the implied breadth is really correct. If it is, such a problem-definition would undoubtedly have to be attacked in stages, in any event, so it would be necessary to flush out the initial and later stages of such a research undertaking. In other words, the problem-definition should be as specific and narrowly focused as possible.

Given a tentative problem-definition statement, the analyst would then ask more extensive questions of the decision maker and of relevant "others" who might know anything about the problem. Such questions could include the following:

1. What decisions will be made on the basis of this study?
2. How will marketing research influence these decisions? Suppose the marketing research reveals X. What decision will be made? Suppose the study reveals Y? What decision will be made? If X and Y are relative opposites, and the planned decision is the same in the face of either outcome, then perhaps marketing research is not useful, required, or relevant in the circumstances.
3. What would be the most and least desirable outcome of the marketing research? Why?
4. What information will make a difference in the decisions to be made?
5. Why do you need to know this?
6. Why not just go ahead and make a decision based on sound business judgment and everything we currently know instead of bothering to conduct marketing research at all?
7. Do we really have to know this? Why?
8. What else do we need to know to make an informed decision?

As time and resources permit, the analyst should review secondary research data, trade industry sources and publications, and the like to learn more about the dimensions and context

of the problem prior to “signing off” on the Research Objective statement and associated Research Questions.

Illustrative Applications

“Alice: Would you please tell me which way I ought to go from here?”

“Cheshire Cat: That depends on where you want to go to.”

Lewis Carroll

A number of examples will illustrate the precision and usefulness of the Research Objective/Research Questions approach. These examples are drawn from a cross-section of organizational contexts and a range of marketing research situations, from very broad to highly structured.

Example 1: A Trade Association

A trade association decided that it wanted to survey its current members to determine how well it was serving its membership. Study results would serve as input in the next year's planning process. The original study objective was to “ascertain members' perceptions of our role as an association and how well we are fulfilling that role.” After much discussion, consultation with key association officials, and preliminary exploratory investigation, the research supplier and the trade association agreed that the following Research Objective and Research Questions would be used as a guide to conducting the study and constructing the survey questionnaire:

Research Objective: To evaluate members' perceptions of the association and its existing service mix, and to determine possible directions for future changes.

Research Questions:

1. How do characteristics of member organizations and their Chief Executive Officers relate to the Chief Executive Officers' attitudes and perceptions about the association and its services?
2. What is the perceived effectiveness of the association's current service mix?
3. What is the utilization pattern of the current service mix?
4. What is the perceived value (importance) of

the components of the association's current service mix?

5. How should the relative emphasis among the current service mix components change in the future?

6. Are there “holes” in the current service mix?

7. In the next five years, what trends and issues will have the most impact on the association members?

8. What image does the association administration portray to its members?

Several observations about this application are in order. First, the Research Objective clearly identifies the population of interest: current association members. The association specifically did not want this study to include an examination of the reasons why some industry members were not association members, thus providing an important delineation of the study's boundaries. Second, the Research Objective statement is quite similar to the original study objective formulated by the association itself. The statement does, however, clearly indicate that “possible directions for future change” are to be a component of the study. While perhaps this component appears obvious in the context of such a study, it was deemed important enough to include in the formal Research Objective statement, which is the contract that served to guide the marketing research effort.

Example 2: A Consumer Packaged Goods Firm

After some exploratory research, a marketing research study to identify the causes of a market share decline of a consumer packaged good was designed with the following Research Objective and Research Questions in mind:

Research Objective: To determine the factors that account for Brand X's sales decline during the first quarter of the year when the product category as a whole has experienced increased sales.

Research Questions:

1. What tangible attributes of the product are most desired by customers?

2. Have Brand X's customers switched to another brand? If so, why?
3. What brands are first-time product category buyers purchasing?
4. What are the characteristics of product category purchasers, categorized by the last brand purchased?
5. How do category purchasers perceive Brand X relative to its key competitors, Brands Y and Z?
6. Have Brand X's purchasers perceived any change in the brand over the last year or so?
7. Does Brand X compare favorably with other brands in store display characteristics?
8. What proportion of stores carrying the product category carry Brands X, Y, and Z?
9. Is Brand X favorably priced compared with its major competitors?

Note the competitive context provided by this study's Research Objective statement. The brand's sales decline has occurred in the face of a product category volume increase. This context explicitly embedded in the Research Objective statement provides useful guidance to the design and conduct of the associated research effort. With regard to these Research Questions, it is interesting to note that some answers—such as to Research Questions 4, 8, and 9—may be obtained from secondary data sources, such as syndicated retail auditing services and diary panels operated by research suppliers. Others will clearly require a substantial primary data collection effort.

Example 3: A New Transportation Service

The H Company operates a scheduled (not on-demand) passenger helicopter service in a major metropolitan area. This service operates between some downtown points and selected outlying suburban areas and the airport. The H Company was interested in assessing the potential demand for the passenger helicopter service at a new site, S. In this situation, the following Research Objective and Research Questions were formulated:

Research Objective: To determine the market potential for H's scheduled passenger helicopter

service in the S area (between S and the airport).

Research Questions:

1. How often do inbound and outbound travelers travel between S and the airport, when do they usually travel, and what means of transportation do they currently employ?
2. What factors do inbound and outbound travelers take into account when choosing a method of ground transportation between S and the airport? What are the relative importances of these factors?
3. How well do inbound and outbound travelers see the current competitors (drive alone, limousine, taxi, and public transportation) of H performing? How is an "H-style" of service perceived?
4. What kinds of inbound and outbound travelers are currently aware of H services and what do they know about it? What are S-area travel agents' knowledge level and impressions of H services?
5. What environmental trends may impact demand for transportation services in the S-airport corridor?
6. Under what circumstances would inbound and outbound S-area travelers find an "H-style" helicopter service to be of interest?
7. Assuming a helicopter service introduction at S, what kind of marketing plan would be appropriate for H? (If H introduced helicopter service at S, what would be the essential marketing program considerations that should and would be included in its marketing plan for this site?)

The specification of the twin target markets of interest—inbound (from the airport to site S) and outbound (from site S to the airport)—are important. However the research is designed, both inbound and outbound originating travelers must be studied.

Any transportation service contemplating adding service to a new site would face issues similar to those identified in this example.

Indeed, these issues are relevant in all new product and service introductions.

Example 4: A New Business Venture

An entrepreneur considering a new business venture in marketing home fire extinguishers in his headquarter city formulated the following Research Objective and Research Questions to guide a market analysis that would form an essential component of his business plan:

Research Objective: To assess the market for home fire extinguishers in the X metropolitan area.

Research Questions:

1. How many homes are not presently equipped with home fire extinguishers?
2. Why do some people have home fire extinguishers while others do not? What differences exist between people who own and those who don't own home fire extinguishers?
3. When and why are people most likely to purchase home fire extinguishers?
4. How great a threat is fire perceived to be? How close are those perceptions to reality? How effective is the fire department perceived to be?
5. When buying a home fire extinguisher, what features do people look for?

Notice that this Research Objective provides a careful delineation of the geographical scope of the study: it is confined to the entrepreneur's "home" metropolitan area. Answers to these Research Questions would be used by the entrepreneur in a variety of ways, within the business plan. Question 1 is crucial to establishing the size of the market for home fire extinguishers. Questions 2-4 relate to information required to allow the entrepreneur to formulate a marketing plan. Question 5 would be relevant if the entrepreneur decided to enter this market. In such a case, the entrepreneur would have to choose a brand (or brands) of fire extinguishers to distribute, and Question 5 would provide important information on which to base such a decision.

Example 5: A Space Sciences Center

A space sciences center in a major metropoli-

tan area is designed to be an entertainment and educational facility specializing in audiovisual programs relating to the exploration of space and the world in which we live. The center is operated by a nonprofit organization. Center officials and other experts believe that its exhibits, films, and star chamber productions are technically good, but the center is operating at much less than capacity. The obvious question—why?—arose. A marketing research effort was designed, structured around the following Research Objective and associated Research Questions:

Research Objective: To determine why the space sciences center is not operating at full capacity.

Research Questions:

1. What is the perception of the center as an entertainment (as opposed to an educational) facility?
2. What do people think is available to do and see at the center? Do people's perceptions change after they have attended the center for the first time?
3. What factors keep people from attending a show at the center?
4. What factors keep people from returning after their first visit?
5. Is there anything that should be at the center that currently isn't available (e.g., cafeteria, more hands-on exhibits, different shows)?
6. How do customers hear about the center's activities?
7. What is the repeat visit rate?
8. Is there an identifiable demographic profile of attendees? Of repeat visitors? Is this profile different for people attending each of the two theaters at the center?

This situation, and the associated Research Objective and Research Questions, is obviously generalizable to any retail business—service providers (health care, financial, etc.) and merchandisers (retail stores, restaurants, etc.). At the most general level, issues of interest include: (1) "Why isn't demand larger?" (2) "What things are we doing right and wrong?" and (3) "What

should/must we do to improve our situation?"

Example 6: Selection of Sales Representatives

The above examples are all quite substantial research initiatives involving a great number of Research Questions and a large commitment of time, effort, and resources. The Research Objective/Research Questions approach is especially valuable in such circumstances because it provides a control on the study design and conduct. However, this approach is useful even for smaller-scale, more narrowly focused studies. In a study of the job choice decision-making process and preferences of sales representatives, the following Research Objective and Research Questions guided the investigation:

Research Objective: To determine the relative importance of job setting and characteristics that influence the job choice decision-making process of sales representatives.

Research Questions:

1. Which aspects of sales positions do sales representatives consider when choosing a job?
2. Which of these aspects are dominant factors when sales representatives screen job opportunities?
3. What are the trade-offs sales representatives make among these dominant factors in their choice processes?
4. How do these trade-offs differ by level of experience and educational background of the sales representative?

The "aspects" and "trade-offs" mentioned here presumably include such factors as advancement prospects, compensation arrangements (salary and commission schedules), nature of supervision, paperwork and reporting requirements, and training opportunities, among other considerations.

A Final Point

Once one sees a Research Objective statement and associated Research Questions, there is a temptation to say, "But, that's obvious." *It is obvious, of course, once it's written down.* This is precisely the point. After formulating a Research Objective statement and a set of

Research Questions, it should look (relatively) obvious, easy, and straightforward to design and conduct the relevant marketing research. This is the whole idea!

The actual process of formulating a Research Objective and a set of Research Questions, however, involves much time, effort, and attention on the part of the decision maker and the analyst in a research study. Typically, multiple iterations are required before an acceptable Research Objective and Research Questions set are agreed upon. Presentation of the Research Objective and Research Questions to relevant "others" will normally be useful but will inevitably delay the initiation of the marketing research effort.

Conclusion

"Some problems are so difficult they can't be solved in a million years — unless someone thinks about them for five minutes."

H. L. Mencken

While five minutes is not enough time to design a significant marketing research undertaking, Mencken's sentiment nicely summarizes the key issue that drives the Research Objective/Research Questions approach: thinking is crucial to the conduct of effective marketing research studies. To some extent, the particular time when conceptual thinking occurs in a marketing research study is up to the decision maker and the analyst. Thinking can occur very early, at the problem-definition phase, or it can be delayed until near the end of the marketing research process, when the data are available for analysis. The risk of later thinking should, however, be obvious: all the relevant data may not have been assembled or, alternatively, much superfluous data may have been gathered. While we do not wish to downplay the possibilities of serendipity, early conceptualization at the problem-definition stage seems crucial to the conduct of effective and efficient marketing research.

In addition to encouraging early thinking in the marketing research process, the Research Objective/Research Questions approach has other positive side benefits. The joint effort of the decision maker and the analyst helps to ensure that the study is oriented toward a rele-

vant managerial problem, and also increases the chance that the study will have a meaningful impact on managerial decision-making associated with the problem. It also serves as a useful communications device to relevant "others" who, while not being directly involved with the research effort, are constituencies to which the research effort may be of more than passing interest.

The merits and some dynamics of embracing this Research Objective/Research Questions approach are nicely captured in the words of one user in a personal communication to the author:

I had only a vague idea of where the research was going until writing the Research Objective for the second time, after the focus groups. Although somewhat annoying, the exercise of writing down a Research Objective and Research Questions clarified the problem tremendously. First, it forced me to stop thinking of all the variables in the universe, and to focus on the most critical things. This focused the task and allowed me to acknowledge clearly that we were only going to study some of the issues. Second, committing an idea to paper is a marvelous way to identify gaps in one's thinking and to enhance one's understanding of how the existing knowledge fits together. Finally, a written document communicates the ideas to others without lengthy meetings, and enhances constructive criticism. On a political level, a written document is also preemptive in that it strongly influences the structure of the project and makes alternative ideas very difficult to champion.²

For survey research, each Research Question must be translated into one or more questions on a data collection instrument. Some technical translation (with reference to questionnaire design principles) is no doubt required since the Research Questions will not necessarily have been cast in a style suitable for a questionnaire. Of course, some of the Research Questions might be resolved by exploratory research or by examination of secondary data. Efforts at anticipating the data analysis as early as the problem-definition stage, and certainly no later than the research design stage, are likely to yield high payoffs.

This Research Objective/Research Questions approach provides an important initial checkpoint in a marketing research study. If an Objective and associated Questions cannot be clearly articulated by the decision maker and the analyst, and if the Objective and Questions do not meet the test of organization consensus among all relevant "others," then the problem is really not yet well defined enough to proceed on with any large-scale marketing research undertaking. Further thinking, discussion, consultation, and exploratory research are needed.

The Research Objective/Research Questions approach does not provide any insight into what is the right problem or which problems are most important to investigate at a given point. Still, given such prior value judgments on the part of the decision maker and the analyst, this approach represents an aid to designing effective and efficient marketing research studies.

END NOTES

1. Alpert, Kenneth J., *How to Solve Business Problems: The Consultant's Approach to Business Problem Solving*, New York: McGraw-Hill Book Company, 1978, p. 4.
2. Mann, Kevin J., personal communication.