3. Marketing research: an aid to decision making

Learning objectives

Having completed this chapter, you should:

- understand the role of marketing research
- understand the marketing research process and the techniques employed

Discovering why they chew

Juicy Fruit Gum, the oldest brand of the Wm. Wrigley Jr. Company, was not chewing up the teen market, gum's top demographic. In 1997, the company found itself under pressure from competitors. Sales and market share were down. How could Wrigley make more kids chomp on Juicy Fruit?

What qualities about Juicy Fruit might appeal to teens? Wrigley went to the source to find out. It found kids who chew five sticks or more of Juicy Fruit each week and promptly gave them a homework assignment. Find pictures that remind them of the gum and write a short story about it. From the focus group, Wrigley learned that teens chew Juicy Fruit because it is sweet. It refreshes and energizes them.

Their ad agency, BBDO, confirmed what the teens were saying. BBDO asked more than 400 heavy gum chewers to rate various brands by attributes that best represented them. For Juicy Fruit, respondents picked phrases such as "has the right amount of sweetness" and "is made with natural sweetness".

Another study by BBDO looked into why teens chew gum. Was it because they are stressed out—or because they forgot to brush their teeth before going to school? Nearly three out of four kids said they stick a wad into their mouth when they crave something sweet. And Juicy Fruit was the top brand they chose to fulfill that need (Big Red was a distant second).[10]

Introduction

Although the marketing research conducted by the Wrigley Co. was fairly simple, it provided a new direction for their marketing strategy. BBDO developed four TV commercials with the "Gotta Have Sweet" theme. Roughly 70 per cent of respondents voluntarily recalled the Juicy Fruit name after watching the commercial (the average recall for a brand of sugar gum is 57 per cent). Sales of 100-stick boxes of Juicy Fruit rose 5 per cent after the start of the ad campaign, reversing a 2 per cent decline prior to it. Juicy Fruit's market share also increased from 4.9 per cent to 5.3 per cent, the biggest gain of any established chewing gum brand during the year following the campaign.

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10 *Sources*: "How Sweet It Is," *American Demographics*, March 2000, p, S 18; "Flavor du Jour," *American Demographics*, March 2000, p, SI0; Erika Rasmusson, "Cool for Sale," *Sales & Marketing Management*, March 1998, pp. 20-22,

Exhibit 5: The marketing planning process.

Marketing research addresses the need for quicker, yet more accurate, decision making by the marketer. The impetus for this situation is the complex relationship between the business firm and the ever-changing external environment. In particular, most marketers are far removed from their customers; yet most know who their customers are, what they want, and what competitors are doing. Often the marketer relies on salespeople and dealers for information, but more and more the best source of information is marketing research.

It should be noted that most marketing decisions are still made without the use of formal marketing research. In many cases, the time required to do marketing research is not available. In other cases, the cost of obtaining the data is prohibitive or the desired data cannot be obtained in reliable form. Ultimately, successful marketing executives make decisions on the basis of a blend of facts and intuition.

In this chapter, we provide an overview of the marketing research process. We start the discussion with a look at business information. As noted in Exhibit 5, marketing research is applicable throughout the marketing planning process.

The nature and importance of marketing research

Informal and, by today's standards, crude attempts to analyze the market date back to the earliest days of the marketing revolution. Only in recent years, however, has the role of research as it relates to management been clearly recognized.

Reflecting this change in orientation, the following definition of marketing research is offered: *marketing research* is the scientific and controlled gathering of nonroutine marketing information undertaken to help management solve marketing problems. There is often hearty disagreement over the answer to the question of whether marketing research is a science. One's answer depends on the employed definition of "science". To be specific, a research activity should use the scientific method. In this method, hypotheses (tentative statements of relationships or of solutions to problems) are drawn from informal observations. These hypotheses are then tested. Ultimately, the hypothesis is accepted, rejected, or modified according to the results of the test. In a true science,

verified hypotheses are turned into "laws". In marketing research, verified hypotheses become the generalizations upon which management develops its marketing programs. (To simplify our discussion, we will use "questions" as a synonym of "hypothesis".)

The mechanics of marketing research must be controlled so that the right facts are obtained in the answer to the correct problem. The control of fact-finding is the responsibility of the research director, who must correctly design the research and carefully supervise its execution to ensure that it goes according to plan. Maintaining control in marketing research is often difficult because of the distance that separates the researcher and the market and because the services of outsiders are often required to complete a research project. [1]

What needs researching in marketing?

An easy, and truthful, answer to this question is "everything". There is no aspect of marketing to which research cannot be applied. Every concept presented in this marketing text and every element involved in the marketing management process can be subjected to a great deal of careful marketing research. One convenient way to focus attention on those matters that especially need researching is to consider the elements involved in marketing management. Many important questions relating to the consumer can be raised. Some are:

- Who is/are the customer(s)?
- What does he/she desire in the way of satisfaction?
- Where does he/she choose to purchase?
- Why does he/she buy, or not buy?
- When does he/she purchase?
- How does he/she go about seeking satisfaction in the market?

Another area where research is critical is *profits*. Two elements are involved. First, there is the need to forecast sales and related costs—resulting in profits. Second, there is the necessity to plan a competitive marketing program that will produce the desired level of sales at an appropriate cost. Sales forecasting is the principal tool used in implementing the profit-direction element in the marketing management concept. Of course, the analysis of past sales and interpretation of cost information are important in evaluation of performance and provide useful facts for future planning.

A great deal of marketing research is directed toward rather specialized areas of management. These activities are broken down into five major areas of marketing research. Briefly, these activities are:

- *research on markets*—market trends, market share, market potentials, market characteristics, completion, and other market intelligence
- *research on sales*—sales analysis, sales forecasting, quota-setting, sales territory design, sales performance measurement, trade channels, distribution costs, and inventories
- *research on products*—new product research, product features, brand image, concept tests, product tests, and market tests
- *research on advertising and promotion*—promotion concepts, copy research, media research, merchandising, packaging, advertising effectiveness measurement
- *research on corporate growth and development*—economic and technological forecasting, corporate planning inputs, corporate image, profitability measurement, merger and acquisition, and facilities location.

Newsline: How execs use research

Creating and introducing new products is the most important research priority among marketing executives. The Marketing Science Institute of Cambridge, Massachusetts, USA, surveyed 160 executives from its sponsoring organizations. The executives, representing 60 major consumer and industrial goods and services corporations, were asked to divide 100 points among several research areas.

After successful new product introductions, the executives said that market orientation and customer relationships are the next most important areas. Those issues displaced improving the use of marketing information and measuring brand equity as the second- and third-highest concerns, respectively, in the previous survey.

"The new research priorities indicate that a shift is taking place in marketing practice", notes Donald Lehmann, executive director of the institute. "Market orientation has taken hold and the increasing power of the consumer is apparent in the movement away from product-driven strategies. Marketers also realize that they need to make choices about who their customers should be and whose needs they are best equipped to meet ... and most significantly, they are looking for better ways to anticipate adoption and diffusion of really new products." said Marni Clippenger, communications director at MSI, "Companies seem to be shifting away from using the brand to really figuring out what customers want."[11]

Capsule 6: Review

1. Marketing research is the scientific and controlled gathering of nonroutine marketing information undertaken to help management solve marketing problems.
2. Any business that is consumer-oriented will benefit from marketing research.
3. Research can be applied to every facet of marketing.

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[11] *Sources*: Rachel Rosenthal. "New Products Reign as Research Priority," *Advertising Age*, August 8, 1994, p. 26; Robert McMath, "To Test or Not To Test," *American Demographics*, June 1998, p. 64; John McManus, "Mission Invisible," *American Demographics*, March 1999, p. 6.

Sales forecast	Demographic trends
Cost forecast	Legislative impact
Product testing	Price testing
Consumer needs	Marketing communication testing
Consumer attitudes	Channel locations
Consumer product usage	Competition
Market size/trends	Psychographic trends
Product replacement	Environmental trends

Exhibit 6: Areas of research application.

Procedures and techniques in marketing research

Considering the relatively short span of time in which marketing research has developed since the 1930s, it is quite remarkable that so sophisticated and thorough a collection of procedures and techniques should have been developed. In many respects, marketing research has advanced faster than any other specialized area in marketing management. In view of the highly specialized nature of marketing research, it is not possible in this discussion to present more than an outline of the basic procedures and techniques.

It is important for a marketing manager to be familiar with the basic procedures and techniques of marketing research. It is true that many businesspeople will never have occasion to engage personally in marketing research. However, it is quite likely that they will be faced with a need either to supervise an internal marketing research activity or to work with an outside marketing research firm. The manager who understands the research function is in a position to judge intelligently the proposals made by research specialists and to evaluate their findings and recommendations. Occasionally, the manager his or herself will have to seek solutions to marketing problems. It may not be possible to obtain the services of marketing research specialists. The manager familiar with the basic procedures of fact-finding in marketing should be able to supervise a reasonably satisfactory search for the information required.

There is no single set of steps in a market research procedure that is accepted by all. Indeed, each marketing research problem requires, to some degree, its own peculiar procedure. However, there is general agreement that four major activities should be performed in a thorough marketing research project. These are: (1) making a preliminary investigation; (2) creating the research design; (3) conducting the investigation; and (4) processing the data/reporting results (see Exhibit 7).[2]

Making a preliminary investigation

There are two phases of activity in the preliminary investigation. The first of these involves the determination of the purpose and scope of the research. The second involves an investigation into the marketing environment called the informal assessment.

Determining the purpose and scope of the research

The basic and critical problem in marketing research is seldom the problem that appears on the surface. It is therefore necessary to explore beneath the surface to ascertain the nature and size of the problem. This is the vital first step and *must* be done correctly, since every subsequent phase of the project is directed at solving the basic problem. For the research to be worthwhile (indeed, for it not to be a waste of resources), the problem must be stated clearly and correctly. Failure to do so is the most serious of mistakes in this project.

Correctly defining the research problem should lead to the establishment of the research parameters. A research study could be restricted by function (advertising); customer group (heavy users); market (Far East); and time frame (1999-2001). Because research is so costly, it is imperative that parameters are established and maintained.
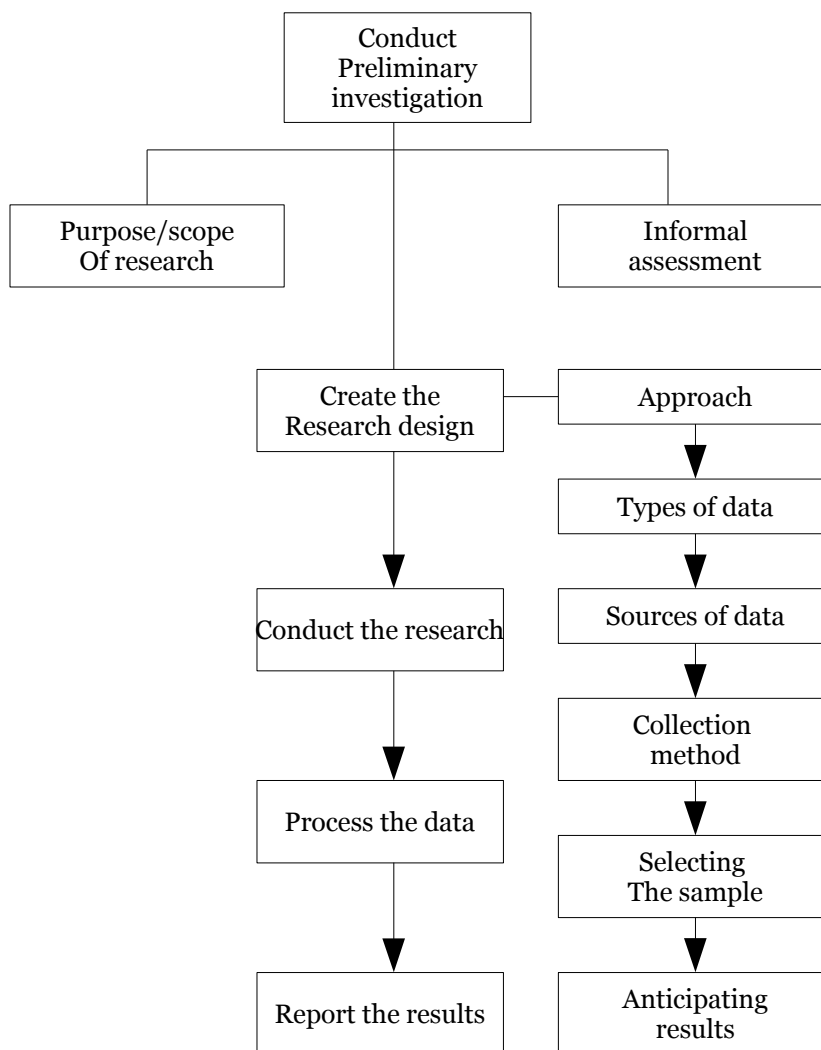
Exhibit 7: The marketing research process.

The informal assessment

The second important phase of the preliminary investigation is called the *informal assessment*. This is an unstructured search of the marketing environment. It enables the researcher to become familiar with the problem setting. This is particularly important for the outside consultant who needs to become acquainted with the company, its customers, its products, and all of the marketing conditions surrounding the problems. It is also wise

for the company researcher to refresh his/her knowledge of those internal factors bearing on the problem and also to discover the external elements involved.

The informal investigation goes beyond merely "getting acquainted" with the problem and its marketing setting, however. The final result of the preliminary investigation is the creation of a set of research questions. In marketing research, theses questions can be stated as a tentative explanation of the problem that the research is designed to solve. For example, if a marketing manager is trying to solve a problem that involves an important loss of market share in a particular area of the country, an informal investigation might reveal three possible reasons for the decline in market position. These reasons, until verified by thorough study, can best be stated as research statements:

- The decline in market share is the result of increased competitive advertising in the area.
- The decline in market share is the result of the test marketing of a new product by a major competitor.
- The decline in market share is the result of "stock outs" at the retail level caused by a trucking strike in the area.

In attempting to verify one or more of these hypothetical statements, the researcher examines company records to uncover new sources of information or to discover relationships in old data with bearing on the current problem. Interviews with company executives and operating personnel are often conducted. Interviews are also conducted with various persons outside the company whose opinions might be expected to have some relevance to the problem. The preliminary search is always limited to obtaining an insight into the problem and into possible solutions for it.

In the final phase of the preliminary investigation, the researcher analyzes the results he has so far obtained and restates them in the form of research questions to be tested in the subsequent research steps.

Creating the research design

The design of a marketing research project is the plan proposed for testing the research questions as well as collecting and processing information. The administration of the project according to the design insures that the fact-finding process will be adequately controlled. "Design" means more than simply using good market research procedures. Every research project should be individually designed to produce the kinds of information needed to solve a particular problem. For this reason, no two market research projects are ever exactly alike.[3]

Six steps are involved in creating a research design: choosing the approach, determining types of data needed, locating data sources, choosing a method of collecting data, selecting the sample, and anticipating/collecting the results.

Choosing the approach

Three alternative approaches are possible in creating a research design. They are not mutually exclusive, but in most cases, the design of a research plan is limited to the use of one of the three.

The first approach is the *experimental approach*. This approach requires that certain procedural rules must be followed. Essentially, the variable of interest—e.g. price, message—must be manipulated and everyone participating in the experiment must have a known and equal chance of being selected.

In a market experiment, information relating to the basic problem is obtained through the use of a small-scale simulated program designed to test a specific research hypothesis. Suppose, for example, that we wish to test the question that *families of similar size and economic characteristics living in three different cities purchase*

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different amounts of a particular formula of a soft drink, such as Dr. Pepper. The first step would be to establish the research question: "For a given time period, the average fluid ounces of a Formula A, B, or C purchased in each city were the same". Next, a sample of the families in each city would be selected and randomly assigned either A, B, or C. Next, a survey would be taken to determine the number of ounces purchased by each family. Once this was done, a statistical test would be used to test the research question. If statistically significant differences in purchases of Formula A, B, or C of Dr. Pepper were noted, it could be concluded that taste does influence the amount of this soft drink purchased by families with the same social and economic characteristics. Of course, other hypotheses about soft drink purchasing could also have been tested using a slightly different method. For example, the effect of television advertising on the purchase of Dr. Pepper might have been studied by inspecting purchases in two or more cities that are in the same general area of the country (such as the southwest) but in which different levels of television advertising had been used.

The second approach is the *historical*. In this approach, reliance is placed on past experiences in seeking solutions to marketing problems. Historical marketing facts are relevant only to the degree that they can be projected into the future. Fortunately, in many areas of marketing, this can be done with a good deal of confidence. Certain types of changes, such as populations and income distribution, come about rather slowly. The day-to-day effect of these changes on marketing is almost imperceptible. Projections of future population, gross national product, and consumer purchasing power are practically foolproof. Historical analyses of such factors as consumer behavior, competitive selling tactics, and distributors' buying practices tend also to be fairly reliable indicators of future behavior by these same marketing components. Often, it is possible to trace the experience of organizations similar to yours and assess how they dealt with similar problems. There are literally hundreds of case studies on companies such as Microsoft that are useful to many business functions. Learning from the mistakes of others makes good business sense.

The third approach that can be used in designing a marketing research plan is the *survey approach*. In the survey approach, marketing information is collected either from observation or by questionnaire or interview. In contrast to the experimental and historical methods, in which the data are more or less directly related to the problem, the survey approach necessarily involves far more subjectivity and intuition on the part of the researcher. Watching a customer make a purchase of a new TV reveals something about his motives; simply asking him why he is buying it is much better. Drawing conclusions from either observations of behavior or from the opinions offered by a respondent create important insights. The survey method is flexible. It can be adapted to almost any type of research design. For this reason, and because of the difficulties in creating marketing experiments and in collecting pertinent historical data, the survey approach is the most often used in marketing research.

Determining the types of data needed

Three types of data are used: facts, opinions, and motivational information. The types of data required are partly identified by the nature of the problem to be solved. For instance, if the problem relates to production and inventory scheduling, the *facts* that are needed relate to market and sales potential. On the other hand, if the problem revolves around the choice between two new products, the *opinions* of potential customers are important considerations. Finally, if a problem involves the choice of an appropriate selling appeal, buyers' *motivations* are probably be most important. Facts are quantitative or descriptive information that can be verified. Opinions are ideas relating to a problem that are expressed by people involved in the solution. Motivations are basic reasons, recognized or unrecognized, that explain action. They are extremely difficult to discover.

Locating the sources of data

There are two general sources of data, *secondary* sources and *primary* sources.

Secondary source information has been previously published and can be either internal or external. Company records and previously prepared marketing research reports are typical of internal secondary source material. External secondary sources are widely available and can be found outside the organization. Excellent bibliographies of secondary data sources are available, especially online. There are eight primary sources of secondary market information:

- public libraries
- universities—library facilities and bureaus of business and economic research
- government agencies—especially departments of commerce, agriculture, and labor
- professional and trade associations
- commercial publishers—especially trade publications
- research and nonprofit organizations
- conferences and personal contact
- computer-provided search systems

There are tremendous advantages in using data from secondary sources. In the first place, the expense of gathering information from secondary sources is a fraction of the cost of collecting primary data. The time required to collect data is also less. Frequently, the information required to solve a management problem must be obtained quickly. Thanks to computer technology, it is now possible to gather, merge, and reformulate many secondary sources of data. This capability has made secondary data even more attractive.

The inherent limitations of using secondary sources data are twofold. First, the information is frequently dated. Second, seldom are secondary data collected for precisely the same reasons that the information is sought to solve the current marketing problem. In spite of these limitations, the advantages of secondary research are so great that it is a common procedure not to proceed with the collection of primary data until after a thorough search of secondary information source has been completed.

Primary information is obtained directly from its source. It involves data that are not available in published form or in company records. It is gathered specifically to answer your research question. The sources of primary information, however, cannot be as easily identified as can the sources of secondary market data. Having identified the information required to help management solve a problem, it is usually possible to identify the person or persons possessing the information desired. In some cases, the information can be obtained from one of several sources. In other situations, the information can be obtained only by contacting specific sources. For example, a manufacturer of vitamins for children discovered that it was necessary to obtain information from the users (children), purchasers (parents), sellers (for the most part, druggists), and purchase influencers (pediatricians). Similarly, a manufacturer of feed for dairy cattle found it desirable to seek market information from farmers, feed dealers, and dairy specialists. Obviously, it is expensive to collect marketing information from multiple sources, and often it is rather time consuming. These two disadvantages are offset by the fact that the information so obtained is tailored to the specific problem at hand. Ultimately, the question as to which source of market information to use depends on the value of the information in relationship to the time and cost required to gather it. [4]

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Choosing the method of collecting data

There are various methods of collecting data, both secondary and primary. Secondary sources of information, listed earlier, can be gathered through a number of means. A company may establish a data-gathering/storage system as part of their computer system. Sales, expenses, inventory, returns, and customer complaints are then gathered automatically. Or a company can subscribe to one or more public research companies that gather relevant information. Finally, a company can obtain information on a problem-by-problem basis.

There are three common methods used to collect primary information: observation, questionnaire, and self-report. *Observational data collection* may be the oldest method. Since the beginning of commerce, merchants have been watching their customers and noncustomers engage in a variety of behaviors. Examples include shopping, purchase, return, complaint behavior, and so forth. A local fast food manager might simply observe the expression on customers' faces as they eat a new sandwich. More formal observation techniques are also employed. Video cameras or audio systems can be targeted at customers. Researchers can also be hired to do license plate surveys in parking lots or simply record observations in a prescribed manner. There are even observational techniques that are quite intrusive. For instance, in the case of a *pantry (cabinet) audit*, the researcher comes to the consumer's home and actually takes an inventory of products found. *Ethnography* requires that the researcher practically move in with the consumer and observe various relevant behaviors. This technique is illustrated in the Newsline box that follows.

Newsline: Where's the beef?

A woman in suburban Baltimore is shopping for her family's meals for the week. She cruises past the poultry section, stopping only momentarily to drop a couple of packages of boneless chicken breasts into her cart. Then, the dreaded sea of red looms before her. Tentatively, she picks up a package of beef. "This cut looks good, not too fatty," she says, juggling her two-year-old on her hip. "But I do not know what it is. I do not know how to cook it," she confesses, and trades it for a small package of sirloin and her regular order of ground beef.

Scenes like these are replayed daily in supermarkets across the country. But this time, it is being captured on videotape by New York City-based PortiCo Research, part of a recent ethnographic study of beef consumers for the National Cattleman's Beef Association (NCBA) and major grocery retailers. And due in part to the trepidation of this one mother in Baltimore, many grocers' meat cases are now being rearranged to display beef by cooking method, rather than by cuts of meat. Simple, three-step cooking instructions will soon be printed on the packages

Ethnographic research, which combines intense observation with customer interviews, shows companies how people live with products—how they purchase and use them in their everyday lives. Knowing what consumers do with beef is vital to the NCBA. The study cost the NCBA approximately USD 60,000 (studies might range from USD 5,000 to USD 800,000). PortiCo videotaped consumer's purchasing behavior as well as their preparation habits at home. The researchers interviewed them each step of the way what they thought about beef, why they did (or did not) select particular cuts, and how they prepared the family meal. The retailers could not

> believe how little consumers knew about something that seemed as familiar to them as sliced bread or soft drinks.[12]

The observation technique can provide important research insights, especially if consistent patterns are noted. This method is relatively inexpensive and can be implemented and completed quickly. Unfortunately, interpreting an observation is still very subjective and mistakes are made.

Gathering information through a *questionnaire* format reflects the most popular research technique. There are two interrelated issues: the design of the questionnaire and the administration of the questionnaire.

There are several rules of thumb that should be followed when designing a *questionnaire*. For example, a good questionnaire should be like a well-written story: it should be logical, relevant, easy to follow, and interesting to the reader/respondent. There are also a host of techniques and related guidelines. For example, Exhibit 8 illustrates the forms questions can take. A yes/no question is considered a closed-ended dichotomous question; i.e. respondent *must* check one of two possible answers. Questions 4 and 5 are two types of scaled questions. Questions 6-8 are open-ended, in that respondent can provide any answer desired. Closed-ended questions are best used when the researcher desires a particular set of answers or feels the respondent is unlikely to come up with an original answer. Open-ended questions allow the respondent to come up with personal answers. Of course, there is a risk that the respondent will have no answer.

Other considerations are whether to place the easier questions at the beginning of the questionnaire, group similar questions, or place demographic questions at the end of the questionnaire. Again, the goal is to enable the respondent to answer the questionnaire easily and accurately.

The design of a questionnaire is a function of how the questionnaire is administered, and vice versa. Four techniques for administering a questionnaire are currently used: mail, telephone, personal interview, and online. In the *mail technique*, the questionnaire is distributed and returned through the mail. A typical packet might contain a cover letter explaining the purpose of the research, a copy of the questionnaire, a stamped self-addressed return envelope, and an incentive for compliance (cash, merchandise, contribution to charity, or copy of report). Mail questionnaires allow the researcher to ask a large number of questions over a broad range of topics. They also allow the respondent to answer the questionnaire at their leisure. Finally, the standardized format does not allow for subjective bias. Unfortunately, these advantages can become limitations. The longer the questionnaire, the less likely the individual will respond. In fact, a response rate of 10-20 per cent is common without an incentive. Control is lost through the mail process. Did the targeted person answer the questionnaire? Did the respondent understand the questions? Did she/he complete the questionnaire? Was the questionnaire returned on time? The loss of control also means that the interviewer cannot probe further into an interesting or controversial answer.

A more convenient and faster way of gathering marketing information is to conduct a *telephone survey*. Names and related telephone numbers can be obtained directly from a telephone directory or from an internally or externally generated database. Telephone surveys are limited in several important ways, such as the difficulty of reaching the correct respondent, the problem of completing the interview if the respondent decides to hang up, and the inability to eliminate the bias introduced by not interviewing those without phones or individuals with unlisted

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12 *Sources*: Kendra Parker, "How Do You Like Your Beef?" *American Demographics*, January 2000, pp. 35-38; Jennifer Lach, "Meet You in Aisle Three," *American Demographics*, April 1999, pp. 41-42.

numbers. Also, 10-15 questions are likely to be the maximum number to be asked. Therefore, only a limited number of topics can be addressed. In spite of these limitations the telephone survey method has grown in popularity. The costs are relatively low, research companies can provide well-trained and technically supported interviewers, and the technique works if the research questions are limited and require a quick answer. Still, it would be better if they did not call while you were eating dinner.

Although often very costly and time-consuming, personal interviews may constitute the best way of collecting survey information. Once compliance is gained, the well-trained interviewer can make sure the right person is answering, ask as many questions as necessary, make sure questions are understood, probe in order to address new issues, and encourage the respondent to complete the questionnaire. With freedom comes bias. It is sometimes difficult for an interviewer to maintain objectivity. Asking questions with a certain intonation, changing the wording, or changing the ordering of questions can all modify responses.

A. DIRECT QUESTIONS/CLOSED-ENDED
1. HAVE YOU PURCHASED A NEW AUTOMOBILE SINCE JANUARY 1 OF THIS YEAR:
      YES_____ NO_____
2. IF YOU HAVE PURCHASED A NEW AUTOMOBILE WHAT MAKE AND MODEL DID YOU BUY?
      MAKE:_____MODEL:_____
3. IF YOU HAVE NOT PURCHASED A CAR SINCE JANUARY 1, DO YOU NOW PLAN TO BUY A NEW AUTOMOBILE BEFORE DECEMEBER 31 OF THIS YEAR?
4. IF YOU HAVE NOT DECIDED WHETHER OR NOT YOU WILL BUY A NEW AUTOMOBILE, DO YOU THINK THAT IT IS
      ____EXTREMELY LIKELY
      ____QUITE LIKELY
      ____UNLIKELY
      ____EXTREMELY UNLIKELY
THAT YOU WILL BUY A NEW AUTOMOBILE BETWEEN NOW AND DECEMEBER 31?
5. I TEND TO RELY HEAVILY ON THE REPUTATION OF A CAR BRAND
DISAGREE   AGREE
1   2   3   4   5
B. DEPTH QUESTION/OPEN-ENDED
6. IF YOU HAVE NOT PURCHASED A NEW AUTOMOBILE, WHAT IS THE MOST IMPORATANT REASON FOR YOUR DECISION NOT TO BUY A NEW CAR?

7. THAT IS VERY INTERESTING. TELL ME MORE ABOUT THAT.

8. ANY OTHER REASONS?

Exhibit 8: Examples of questions used in marketing research.

There are several *online* information-gathering techniques that allow the respondent more freedom in providing answers. As one would expect, there has been a recent rapid technological evolution in this area. Online questionnaires can help website sponsors to gauge customer satisfaction, profile visitors, and provide a way to measure traffic for advertisers beyond banner click-throughs. By using research tools such as exit surveys, e-tailers can find out why people are leaving their sites—and why they might not come back.

There are four popular types of *online* research. *Pop-up surveys* occur when visitors are intercepted when they leave certain pages of the website. A questionnaire then appears in a box on top of their main browser screens asking for responses. With *e-mail/web surveys*, a company sends an e-mail message asking the recipient to complete a survey. Sometimes the survey is embedded in the e-mail itself. Other times the e-mail lists either a passworded location to visit or a unique location that only the addressee can access to fill out the survey. *Online groups* are much like traditional focus groups, but are conducted in a web-based chat room where select individuals are invited by the company or its research firm. Finally, in the case of *moderated e-mail groups*, discussions take place over a period of time with a group communicating by e-mail. A moderator compiles the answers and sends the summary back to the group for comments and follow-up.

The third technique used to gather research information is *self-reporting*. This technique allows the respondent to deliver the information in a somewhat unstructured format. One very popular version of this technique is the *focus group*. A focus group takes place in a room where approximately 8-10 individuals and a trained moderator gather to discuss a particular business problem or set of problems. Often, the room contains a two-way mirror, which the sponsors of the research sit behind in order to observe the process. The proceedings are audiotaped or videotaped. Focus groups have been an extremely popular type of data collecting for a long time. A great deal of diverse information can be gathered quickly (assuming there is a well-trained moderator). However, there are serious limitations. It is still a subjective process and interpretation is necessary. It is also expensive; often several thousand dollars per focus group. Finally, it is difficult to control the behavior of the participants. Some dominate and some say nothing. Some become the equivalent of professional focus group members and no longer are able to provide the hoped-for spontaneity.

According to a psychologically proven premise, it is possible by impersonalizing questions to obtain information from a respondent that he would not, or could not, otherwise provide. This method involves the use of the *projective technique*, and represents a second type of self-report technique. The intent of the projective technique is to give respondents an opportunity to answer questions without the embarrassment or confusion created by direct involvement. Several projective techniques are employed:

- *Word association tests*. In the word association test, the respondent is asked to say the first word that comes into his mind upon the presentation of another word stimulus. The most obvious applications of this test are in research on brand recognition, company image, and advertising appeals.
- *Sentence completion tests*. In a sentence completion test, the respondent is asked to complete a number of sentences with the first words that come to mind. A series of sentence completion questions used by a supermarket chain were: (a) I like to shop in an AG supermarket because . . .; (b) I think that food prices are . . .; (c) The thing that bothers me most about food shopping in an AG store is . . .

  The sentence completion test is relatively simple to administer and easy to interpret. It is usually difficult, however, to reduce the finding from a sentence completion test to statistical form.

- *Psychodrama*. In the psychodramatic type of question, the respondent is asked to project himself into an artificial marketing situation. The obvious artificiality of the situation makes the psychodrama a "role-playing" experiment in which the respondent provides information based on his personal attitudes through his explanation of the artificial situation.

Perhaps the greatest deficiency of projective techniques is the difficulty of presenting the findings. The identification of attitudes, motives, opinions, and so forth is not difficult; however, it is extremely hard to measure the importance of these factors.

Selecting the sample

In most marketing research, it is seldom necessary to conduct a complete census; i.e. to talk to 100 per cent of the target segment. To do so is time-consuming and expensive. For this reason most marketing surveys make use of samples. A sample is a group of elements (persons, stores, financial reports) chosen from among a "total population" or "universe". The value of a research project is directly affected by how well the sample has been conceived and constructed.[5]

The selection of the sample to be investigated requires a master list, or a framework, from which they may be selected. The sampling frame is the "population" or statistical "universe" from which the sample units will be selected. The frame for a survey of attitudes of credit customers of a department store would be the company's list of customers using charge accounts.

Although there are many kinds of sample designs, all of them can be classified as either *probability* samples or *nonprobability* samples. In a probability sample, each unit has a known chance of being selected for inclusion in the sample. Its simplest version is the simple random sample, in which each unit in the sample frame has exactly the same chance of selection. Examples of this include flipping a fair coin, whose sides have a 50 per cent chance of turning up and throwing an unloaded die, whose sides have a 16 ⅔ per cent chance of turning up. This same principle can be applied to the previous department store example. A sample of names could be selected from the company's list of charge customers according to a random process, such as that of using a table of random digits.

While in a *probability* sample the sampling units have a known chance of being selected, in a *nonprobability* sample the sampling units are selected arbitrarily. To return to our department store example, instead of using a table of random numbers to select a sample of charge customers, an arbitrary and more convenient method would be to take the first 50 or 60 names on the list.

Anticipating the results/making the report

The research plan should provide for: (a) procedures for processing the data; (b) procedures for interpretation and analysis of the findings; and (c) an outline of the final report. In reaching these decisions, it is usually helpful to work from the form and content of the final report. The report should present a summary of findings and recommendations for management action drawn up in the light of the reasons for the research. The kinds of facts to be presented and the manner of their presentation dictates the type of analysis to be undertaken. The kinds of analysis will, in turn, often suggest the method of data processing. *Data processing* in general refers to the procedures for sorting, assembling, and reporting data. It can be done manually by the use of work sheets or by computer programming. The method of data processing has important bearing upon the manner in which the data are collected and reported. Thus, the design of the project is often expedited by a thorough consideration of the kinds of results that are expected and how they will be handled in the final report.

Anticipating the results of the project and preparing a "dummy" final report has another advantage. It is often helpful to use the results of this step in the research design to demonstrate to management the kind of project that is going to be undertaken. Agreement by the management group that the kinds of information anticipated will assist in the solving of a marketing problem is helpful in obtaining approval for the project and in restraining management expectations as to the scope and purpose of the project.

Conducting the research

The attention devoted in the previous paragraphs to the design of the research plan might leave the impression that once a marketing research project has been carefully designed, the job is almost done. Clearly, this is not the case. The implementation of a research plan is seldom an easy task. Often a research program requires extra effort from already-busy personnel in the company. In other cases, outsiders must be recruited, hired, and trained. In either situation, carrying out a marketing research plan is difficult and requires very close supervision and control. To the extent that the plan has been well conceived, supervision and control are restricted to making sure that the research activities called for in the plan are carried out according to schedule and in the manner prescribed.

Processing the data

Processing the data obtained in a market survey involves transforming the information obtained into a report to be used by management. Four steps are involved: (1) editing the data; (2) tabulating the data; (3) interpreting tile data; and (4) presenting the report. If, in the *anticipation of the results* of the survey, the procedures for handling the data have been sent forth and the form of the final report conceived, these final four steps in the research procedure may be quite mechanical. A good plan for the analysis and interpretation of the data is of immense assistance in bringing a project to a successful conclusion, but it should never limit the kinds of interpretations that eventually are made or restrict the content of the final report.

The final report of a marketing research study should ordinarily be written. Since vast amounts of data often are involved, the written report is the only appropriate method of presenting these findings. The written report also has the advantage of being permanent, thus permitting management to study the findings carefully and to refer to them in the future. Unfortunately, many marketing research projects are never translated into management action—sometimes because the research conclusions do not directly contribute to the solution of the problem, sometimes because the report is too technical and difficult to understand, and sometimes because the report writer has not offered specific suggestions as to how the report should be translated into management strategy.

The value of marketing research

It is important to point out that it is not always necessary to conduct research before attempting to solve a problem in marketing management. The manager may feel that he already knows enough to make a good decision. In a few instances, there may be no choice among alternatives and hence no decision to make. It is rather pointless to study a problem if there is only one possible solution. But in most business situations, the manager must make a choice among two or more courses of action. This is where fact-finding enters in to help make the choice.

Even if a manager would like more information in order to make a decision, it is not always wise for him or her to conduct the research that would be required. One reason is that the time involved may be too great. Another more compelling reason is that the cost of the research may exceed its contribution. In principle, it is easy to understand how such a cost test might be applied. If the cost of conducting the research is less than its contribution to the improvement of the decision, the research should be carried out. If its cost is greater, it should not be

conducted. The application of this principle in actual practice is somewhat more complex. Finally, good research should help integrate marketing with the other areas of the business.

Integrated marketing

Research brings it together

It is the bane of modern business: too many data, not enough information. Computers are every—to extract significance from the blizzard of numbers, facts, and stats. Help is on the way, in the form of a new class of software technology known broadly as data-mining. First developed to help scientists make sense of experimental data, this software has enough smarts to "see" meaningful patterns and relationships—to see patterns that might otherwise take tens of man-years to find. That is a huge leap beyond conventional computer databases, which are powerful but unimaginative. They must be told precisely what to look for. Data-mining tools can sift through immense collections of customer, marketing, production, and financial data, and, using statistical and artificial intelligence techniques, identify what is worth noting and what is not.

The payoffs can be huge, as MCI Communications is learning. Like other phone companies, MCI wants to keep its best customers. One way is to identify early those who might be considering jumping to a rival. If it can do that, the carrier can try to keep the customer with offers of special rates and services, for example.

How to find the customers you want to keep from among the millions? MCI's answer has been to comb marketing data on 140 million households, each evaluated on as many as 10,000 attributes—characteristics such as income, lifestyle, and details about past calling habits. But which set of those attributes is the most important to monitor, and within what range of values? A rapidly declining monthly bill may seem like a dead give-away, but is there a subtler pattern in international calling to be looking for, too? Or in the number of calls made to MCl's customer-service lines?

To find out, MCI regularly fires up its IBM SP/2 supercomputer, its "data warehouse", which identifies the most telling variables to keep an eye on. So far, the SP/2 has compiled a set of 22 detailed—and highly secret—statistical profiles based on repeated crunching of historical facts. None of them could have been developed without data-mining programs, says Lance Boxer, MCI's Chief Information Officer.

Data-mining in itself is a relatively tiny market: sales of such programs will grow to maybe USD 750 million by 2001. But the technology is crucial in getting a big payoff from what information technology executives think will be an immensely important growth area in coming years: data warehousing. There are the enormous collections of data—sometimes trillions of bytes—compiled by mass marketers, retailers, or service companies as they monitor transactions from millions of customers. Data warehouses, running on ultrafast computers with specialized software, are the basis on which companies hope to operate in real time—instantly adjusting product mix, inventory levels, cash reserves, marketing programs, or other factors to changing business conditions. [13]

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13 *Sources*: John W. Verity, "Coaxing Meaning out of Raw Data," *Business Week*, February 3, 1997, pp. 134-138;

"Researchers Integrate Internet Tools in Their Work," *R&D Magazine*, June 2000, vol. 24, No.6, p. E13;

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In practice

Marketing research is a scientific and controlled process, but ultimately, decisions are based on a blend of facts and intuition. Understanding marketing research allows managers to intelligently evaluate findings and recommendations.

Determining the purpose and scope of the research is the first critical activity in any marketing research project. All subsequent decisions are results of this process. Creating the research design, conducting the investigation, and processing the data are the remaining critical activities. Both primary and secondary data are accumulated when conducting research. Using this information to produce good research allows managers to integrate marketing with other areas of the business.

Secondary sources of data online include associations and business information sites. Check out the American Marketing Association's website at www.ama.org/resource for a list of resources and guides. For links to business directories, media sites, and marketing-related resource check out A Business Researcher's Interests at www.brint.com.

Your subscription to the Interactive Journal allows you to access articles in various **Dow Jones** publications. Under More Dow Jones Sites in the left menu, click on Dow Jones & Co. From here you will be able to access Dow Jones Web Links which offers you links to dozens of business and news websites. Click on several of these links now.

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Return again to the Interactive Journal's **Front Section**. Under **Resources** in the left menu, select **Special Reports**. This section offers links to special reports that have appeared as supplements to The Wall Street Journal print edition. These reports provide a thorough analysis and review of various topics such as e-commerce, **Small Business**, and **World Business**. Review recent **Special Reports** now.

Deliverable

With the information provided in this section about Web resources, use the Interactive journal and relevant Web links to conduct market research on recent trends in e-commerce. Find at least five sources of secondary data online that will help you identify relevant trends in e-commerce advertising, marketing, and business strategies.

"Smarter Kids. Com Chooses Quadstons–The Smartest Customer Data Mining Solution," *Business Week*, July 31, 2000.

Questions

> ➢ How can marketing research help managers create successful product lines and customer relationships?
>
> ➢ Most people conduct research when buying certain "big ticket" items like cars or computers. How do you conduct marketing research for these types of items?
>
> ➢ How has the Internet impacted consumers and their purchase decisions? What about the impact on companies?

Capsule 7: Review

1. The following steps are involved in conducting marketing research:

   (a) making a preliminary investigation

   (b) creating the research design

   (c) conducting the investigation

   (d) processing the data/deliver the results

Chapter summary

Four major elements are involved in undertaking marketing research. The first element is a preliminary investigation. This initial study permits the researcher to determine the purpose and scope of his research as well as to identify tentative questions.

Creating a research design to test the questions is the most important and most complicated aspect of marketing research. It commences with the selection of the approach to be taken. The three most commonly used are the experimental, the observational, and the survey approaches. Any given project may use one or more of the three.

It is also necessary to determine the types of data that will be needed to solve the marketing problem and to locate sources where this information can be obtained. Data sources are generally classified as either primary or secondary. Secondary data are made up of previously collected information and are obtained from historical records, publications, government documents, and the like. Primary data are gathered for the first time. The survey method is probably the most frequently used method for collecting primary data. Data are by gathered by mail, by telephone, by personal interviewing, and online.

Another critical aspect of most marketing research projects is the selection of the sample. A probability sample involves the selection of respondents in such a way that every unit in the pool has the same chance of being selected. One method of drawing a probability sample is by the use of a table of random digits. A nonprobability sample is drawn on a judgmental basis; the respondents are selected because they are considered to be representative of the group from which they are drawn.

The final aspect of the research design is the anticipation of the results and the decision as to how the data will be summarized and reported. It is becoming more and more common in large marketing research projects to make use of a computer for the processing and tabulation of the research results. Some problems usually arise, however, and careful supervision and control of the data-collection activities are important. It is particularly critical to guard against various kinds of survey bias that can creep into a project.

Key terms

Marketing research The scientific and controlled gathering of nonroutine marketing information undertaken to help management solve marketing problems.

Informal assessment An unstructured search of the marketing environment.

Research design Plan proposed for testing the research questions as well as collecting and processing information.

Experimental approach Variable interest must be manipulated and everyone participating in the experiment must have a known and equal chance of being selected.

Historical/case method Reliance is placed on past experiences in seeking solutions to current
marketing problems.

Survey approach Marketing information is collected either from observation or by questionnaire or interview.

Secondary source data Information that has been previously published and can come from within or outside the business.

Primary information Information gathered to address a particular problem.

Data processing Procedures for sorting, assembling, and reporting data.

Questions

> Marketing research is sometimes referred to as a "problem-solving tool". Explain what is meant by this statement.

> It is often argued that only such fields as physics, chemistry, and mathematics are really "scientific" and that marketing research, as common with all behavioral research, cannot be scientific. How would you respond to someone who stated this opinion?

> Do you think that a distinction can be made between "pure" and "applied" research in marketing?

> Select a local or campus enterprise with which you are familiar. Identify a marketing problem that it faces. (You may need to interview the manager of the establishment.) Translate this marketing problem into its informational elements. Conduct a small-scale informal investigation: (a) What tentative hypotheses can you develop? (b) What types of research design do you believe would be necessary to test these hypotheses?

> A small manufacturer of highly specialized medical laboratory equipment and a manufacturer of a proprietary (nonprescription) cold remedy need information to assist in planning new product introductions. What would be the advantages and drawbacks of using primary versus secondary marketing information for each firm?

> You are the advertising manager of a company that manufactures professional baseball equipment. Your firm employs 50 field salespeople who make periodic calls on sporting goods dealers, large schools and colleges, and professional athletic organizations. You also place full-page advertisements in a trade publication for the sporting goods industry, Scholastic Coach. The president of your company has questioned the use of this publication and has asked you to find out how effective it is in increasing awareness about your products and in stimulating sales. How would you go about this task?

> In 1970, Ford Motor Company introduced its subcompact automobile, the Pinto. Suppose you had been a marketing research analyst working for another car manufacturer. What kinds of primary and secondary marketing research would you have conducted to evaluate the success of this new product introduction?

Project

Design a short questionnaire (no more than 10 questions) intended to reveal whether or not another student is a good prospect for a new laptop computer. Assume the purpose of this questionnaire is to obtain information that could be used to help increase sales of laptops to college students. Would you use the same questions on a mail questionnaire as in a personal interview? If not, what questions would you use if you were going to mail the questionnaires?

Case application
Research saves the day at case

In today's combative marketplace, making any significant progress against skillful and large rivals is nothing short of a colossal achievement. Case Corporation, a manufacturer of construction and farm equipment, can make such a claim, but only after spending two years digging itself out of decline—operating losses for 1991 and 1992 reached USD 900,000—and are finally showing growth. Case's net income increased more than 300 per cent in 1994 to USD 165 million, with a 14 per cent sales increase, and 1995 revenues reached USD 4.2 billion.

Significant headway toward recovery began in 1994 when new CEO, Jean-Pierre Rosso, launched a new era at Case. His matter-of-fact pronouncement: "We need to be asking what the farmer and contractor need", triggered the company's turnaround and kindled a new respect from its customers.

Basic as it may seem, for most of the 1980s, "asking" was not a part of Case's product-driven orientation. Result: under performing products such a low-horsepower tractors entered the marketplace, fueled by low prices and sales incentives.

Worse yet, when market demand eventually plummeted, dealers found themselves stuck with a glut of unsold Case equipment. To further aggravate the situation, relationships with dealers were increasingly greeted with suspicion.

In the face of those dire conditions, Rosso issued his market-driven directive that pressed Case managers to determine the wants and needs of its customers. One incident showcases the process they used to obtain reliable customer feedback: A contractor was flown in to Case's Burlington, Iowa test site and put to work for three days testing a piece of Case equipment and comparing its performance with that of comparable Caterpillar and Deere machines. Each day managers grilled the customer about features, benefits, and problems.

In another approach, Case sent teams of engineers and marketing personnel to talk to key customers and users of competitors' equipment. Applying what they learned from the feedback, engineers developed prototype machines and shipped them to hundreds of participating users for evaluation. The engineers then incorporated actual field data into final prototypes.

The bottom line: all this market-driven "asking" is a far cry from the Case's reputation during the 1980s of being one of the most mismanaged companies in the field.

Questions

➢ Although things seem to be going well for Case, can you identify any potential mistakes they made in doing their research?

➢ How could they gather secondary data on this product category?

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