Part 3

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Initiating the Marketing Process

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How Part 3 Fits into the Book

The two chapters in Part 3 discuss key marketing methods—techniques to help discover the potential buyers for a product or services and determine their needs and wants; then focusing marketing efforts on those key segments most likely to buy the product or service.

CHAPTER 8

MARKETING RESEARCH: FROM INFORMATION TO ACTION

LEARNING OBJECTIVES

After reading this chapter, you should be able to:

1. Know what marketing research is.
2. Explain the different types of marketing research.
3. Understand the stages in the marketing research process.
4. Explain the use of secondary data, surveys, experiments, and observation in marketing research.
5. Explain how information technology and data mining link massive amounts of marketing information to meaningful marketing actions.

TEST SCREENINGS: LISTENING TO CONSUMERS TO REDUCE MOVIE RISKS!

Blockbuster movies are essential for today's fiercely competitive world of film making, examples being *Spider-Man*, *Tough Love*, *Shoeless Joe*, and *3000*.

What's in a Movie Name? Can't remember those last three movies, even after scratching your head? Well, test screenings by the studios—a form of marketing research—found that moviegoers had problems with those titles. Here is what happened:

- *Tough Love* became *Gigli* when audiences did not like the name of the mob comedy starring Jennifer Lopez and Ben Affleck. Unfortunately, even the name change did not help this movie, which bombed at the box-office.
- *Shoeless Joe* became *Field of Dreams* because audiences thought Kevin Costner might be playing a homeless person.
- *3000* became *Pretty Woman* when audiences did not have a clue what the number meant. *Hint*: It was the amount of dollars to spend an evening with Julia Roberts.[1]

Film makers want movie titles that are concise, attention-getting, capture the essence of the film, and have no legal restrictions—basically, the same factors that make a good brand name.

The Risks in Today's Blockbuster Movies Bad weather, poor scripts, temperamental stars who stomp off the set, and too-costly special effects are just some of the nightmares faced by movie producers. Today's films average more than $100 million to produce and market.[2] So, some studios try to reduce their new-movie gamble by planning a multi-episode film series—*Harry Porter*, *Matrix*, *Lord of the Rings*, and *Spider-Man* being examples. But there are hidden dangers. As Harry Potter and Hermoine Granger age, will their characters be credible, and will young moviegoers, the target audience, still *buy tickets*? Shooting all the movies in a sequence at one time, like it was done for the *Lord of the Rings* triology, also poses huge marketing and marketing research issues. Most of the $320 million invested in the three movies would have been lost had the first in the sequence, *The Fellowship of the Ring*, been a disaster. The third film in the *Matrix* triology, *The Matrix Revolutions*, highlights the multi-film problem: ticket sales did not reach the production costs, to say nothing of the tens of millions of dollars spent on marketing the film.[3]

Spider-Man 2 was a pleasant shock among multi-episode film series by outselling the original movie. Its $500 million gross sales the first three weeks in theatres around the world easily covered its $200 million production budget and $50 million marketing costs. The producers are hoping for the same results when *Spider-Man 3* is released.[4]

Using Market Research to Reduce Movie Risk Is research on movie titles expensive? Very! But the greater expense is selecting a bad title that can kill a movie and cost the studio millions of dollars—not to mention the careers of producers and directors! So, movie studios use marketing research to reduce their risks.

For test screenings, 300 to 400 prospective movie-goers are recruited to attend a "sneak preview" of a film before its release. After viewing the movie, the audience fills out an exhaustive survey to critique the title, plot, characters, music, and ending—as well as the marketing program (posters, trailers)—to identify improvements to make in the final edit of the movie.[5]

Without reading ahead, think about answers to these questions:

- Whom would you recruit for these test screenings?
- What questions would you ask audience members to help you in editing or modifying the title or parts of the film?

Virtually every major movie produced today uses test screenings to obtain the key reactions of consumers likely to be in the target market. Figure 8–1 summarizes some of the key questions that are used in these test screenings, both to select the people for the screenings and to obtain key reactions of those sitting in the screenings. Note how specific the studios action is for each question asked, such as "Change the title ending." This is an example of effective, action-oriented marketing research.

Here are some examples of changes to movies that have resulted from this kind of marketing research:

- *Making the plot move faster*. Disney cut a duet by Pocahontas and John Smith in *Pocahontas* because it got in the way of the action and confused test audiences.
- *Reaching a market segment more effectively*. More action footage was added for Kevin Costner when preview screening showed young males were less enthusiastic about *The Bodyguard* than were young females.[6]
- *Changing an ending*. *Fatal Attraction* had probably the most commercially successful "ending-switch" of all time. In its sneak previews, audiences liked everything but the ending, which had Alex (Glenn Close) committing suicide and managing to frame Dan (Michael Douglas) as her murderer by leaving his fingerprints on the knife she used. The studio shot $1.3 million of new scenes for the ending that regular audiences eventually saw.[7]

POINT WHEN ASKED	KEY QUESTIONS	USE OF QUESTIONS
Before the test screening	• How old are you?	• Find people who fit the profile of target audience for movie.
	• How frequently do you pay to see movies?	• Find people who frequently attend movies.
After the test screening	• What do you think of the title?	• Change movie title.
	• What title would you suggest?	
	• Were any characters too distasteful? Who? How?	• Change aspects of some characters.
	• How did you like the ending? If you did not like it, how would you change it?	• Change or clarify ending.
	• Would you recommend the movie to a friend?	• Overall indicator of liking of and/or satisfaction with movie.

FIGURE 8–1
Marketing research questions asked in test screenings of movies, and how they are used

The switch in endings for *Fatal Attraction* that resulted from audience reactions to test screenings reduced the studio's risk and undoubtedly contributed to the movie's box-office success. But even good marketing research cannot guarantee success. Test screenings caused the studio to shoot a new ending for JLo and Ben Affleck in *Gigli*. Audiences hated that Ben Affleck's character died in the original ending, which they felt was too dark and inconsistent with the rest of the movie. The reshoot was not enough. Besides being a disaster at the box office, *Gigli* was nominated for "worst picture" and eight other "Razzies," the highest-profile bad-movie anti-Oscars given by voters of the Golden Raspberry Awards.[8]

Movie studios also use tracking studies, in which prospective movie-goers in the target audience are asked three key questions about an upcoming film release:[9]

- Are you aware of a particular film?
- Are you interested in seeing it?
- Would it be your first choice on a certain weekend?

Studios then use the data collected to forecast the movie's opening-weekend box office sales or run last-minute ads to increase awareness and interest: the "buzz" or word-of-mouth for the film. In some cases, a studio may postpone or advance a film's release depending on the results for other movies scheduled for release at that time.

These examples show how marketing research is the link between marketing strategy and decisive decisions, the main topic of this chapter. Also, marketing research is often used to help a firm develop sales forecasts, the final topic in the chapter.

WHAT IS MARKETING RESEARCH?

marketing research
The process of defining a marketing problem and opportunity, systematically collecting and analyzing information, and recommending actions to improve an organization's marketing activities.

Marketing research is the process of defining a marketing problem or opportunity, systematically collecting and analyzing information, and recommending actions to improve an organization's marketing activities.[10] Broadly speaking, assessing the needs and wants of consumers and providing information to help design an organization's marketing program to satisfy them is the principal role that marketing research performs. This means that marketing research attempts to identify and define both marketing problems and opportunities and to generate and evaluate marketing actions. Although marketing research can provide few answers with complete assurance, it can reduce risk and uncertainty to increase the likelihood of the success of marketing decisions. It is a great help to the marketing managers who must make

final decisions. Conducted properly, marketing research can solve most marketing-related problems that an executive might have. However, marketing research should not be designed to simply replace an executive's good sense, experience, or intuition but rather should be used in conjunction with those skills and as a way of taking out some of the guesswork in the marketing decision-making process.

TYPES OF MARKETING RESEARCH

To understand the variety of research activity, it is helpful to categorize different types of marketing research. Marketing research is often classified on the basis of either technique or function. Surveys, experiments, and observation are a few research techniques with which you may be familiar. However, categorizing research by its purpose or function shows how the nature of the marketing problem influences the choice of research techniques. The nature of the problem will determine whether the research is (1) exploratory, (2) descriptive, or (3) causal.

Exploratory Research

Exploratory research is preliminary research conducted to clarify the scope and nature of the marketing problem. It is generally carried out to provide the researcher with a better understanding of the dimensions of the problem. Exploratory research is often conducted with the expectation that subsequent and more conclusive research will follow. For example, the Dairy Farmers of Canada, an association representing dairy producers in the country, wanted to discover why milk consumption was declining in Canada.

They conducted a search of existing literature on milk consumption, talked to experts in the field, and even conducted preliminary interviews with consumers to get ideas about why consumers were drinking less milk. This exploratory research helped the association to crystallize the problem and identify issues for more detailed follow-up research. We examine exploratory research as an integral component of the basic marketing research process later in the chapter.

The Dairy Farmers of Canada conducted three types of marketing research in an effort to solve the problem of decline in milk consumption. For details, read the text.

Dairy Farmers of Canada
www.dairyfarmers.org

Descriptive Research

Descriptive research is research designed to describe the basic characteristics of a given population or to profile particular marketing situations. Unlike exploratory research, with descriptive research, the researcher has a general understanding of the marketing problem and is seeking conclusive data that answer the questions necessary to determine a particular course of action. Examples of descriptive research would include profiling product purchasers (e.g., the Canadian shopper at the health food store), describing the size and characteristics of markets (e.g., the Canadian pizza restaurant market), detailing product usage patterns (e.g., ATM usage by Canadian bank customers), or outlining consumer attitudes toward particular brands (e.g., Canadian attitudes toward national, private, and generic brands).

Magazines, radio stations, and television stations almost always do descriptive research to identify the characteristics of their audiences in order to present them to prospective advertisers. As a follow-up to its exploratory research, the Dairy Farmers of Canada conducted descriptive research to determine the demographic characteristics of milk consumers, current usage patterns, and consumer attitudes toward milk consumption.

Causal Research

Causal research is research designed to identify cause-and-effect relationships among variables. In general, exploratory and descriptive research normally precede causal research. With causal research, there is typically an expectation about the relationship to be explained, such as predicting the influence of a price change on product demand. In general, researchers attempt to establish that one event (e.g., a price change) will produce another event (e.g., a change in demand). Typical causal research studies examine the effect of advertising on sales; the relationship between price and perceived quality of a product; and the impact of a new package on product sales. When the Dairy Farmers of Canada conducted its descriptive research on milk consumers, it discovered that many believed milk was too fattening and too high in cholesterol. The association felt that these beliefs might be related to the overall decline in milk consumption in Canada. To test this assumption, the association ran a television advertising campaign to demonstrate that milk was a healthful product and essential to a person's diet. In its tracking studies, it found that the ad campaign did change consumer attitudes toward milk, which, in turn, was causally related to a subsequent increase in milk consumption. We refer to causal research later in this chapter when we deal with experiments as a basic research technique.

CONCEPT CHECK

1. What is marketing research?
2. What is the difference among exploratory, descriptive, and causal research?

THE MARKETING RESEARCH PROCESS

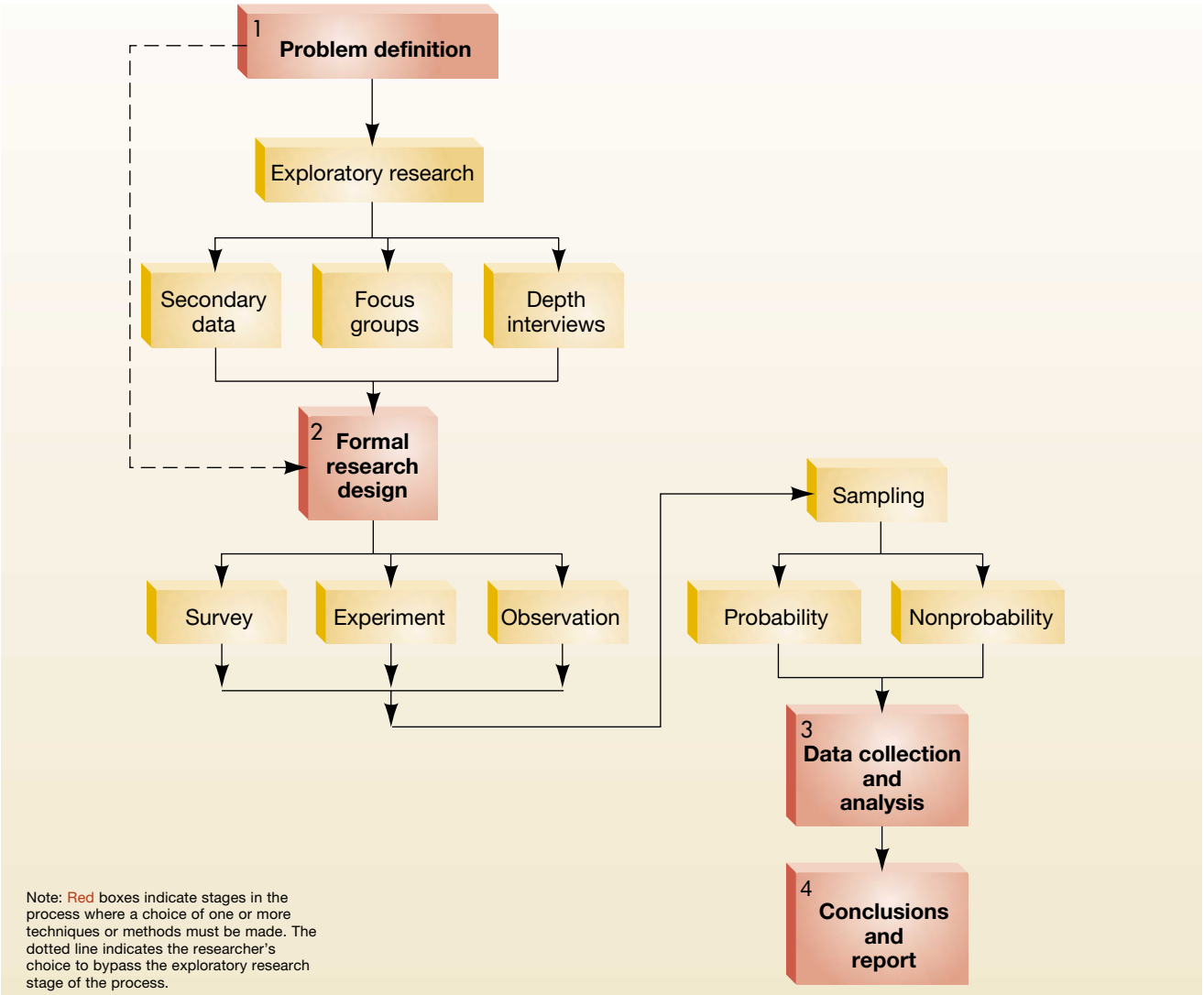
Marketing research should always be conducted on the basis of the *scientific method*, a process of systematically collecting, organizing, and analyzing data in an unbiased, objective manner. Marketing research must meet two basic principles of the scientific method—reliability and validity. *Reliability* refers to the ability to replicate research results under identical environmental conditions. In other words, if a research project were to be conducted for the second, third, or fourth time, the results should be the same. Marketers need to have reliable information to make effective

decisions. If the results of a study are not reliable, the research can do more harm than no research at all. *Validity* involves the notion of whether the research measured what was intended to be measured. In other words, does the research tell marketers what they need to know? You should keep the concepts of reliability and validity in mind as we discuss the marketing research process.

Figure 8–2 outlines the basic marketing research process. The figure is perhaps an oversimplification of the process, since marketing research does not always follow such a neat and ordered sequence of activities. However, all marketing research consists of four basic stages: (1) defining the problem, (2) determining the research design, (3) collecting and analyzing data, and (4) drawing conclusions and preparing a report.

In reviewing Figure 8–2, you can see that the researcher has a number of decisions and choices to make during the stages of the process. For example, the red boxes in Figure 8–2 indicate stages in the process where a choice of one or more techniques or methods must be made. The dotted line indicates the researcher's choice to bypass the exploratory research stage of the process.

FIGURE 8–2
The basic marketing research process



Note: Red boxes indicate stages in the process where a choice of one or more techniques or methods must be made. The dotted line indicates the researcher's choice to bypass the exploratory research stage of the process.

PROBLEM DEFINITION

The first step in the marketing research process is to properly define the scope and nature of the marketing problem to be investigated. In general, the term *problem* suggests that something has gone wrong. In reality, to the marketing researcher, the word *problem* may also mean something to explore or an opportunity to define, or a current marketing situation to monitor or evaluate. Sometimes, the problem is obvious, but in other cases, the problem may be more difficult to identify and define. In either case, the marketing researcher must fully understand and properly identify the problem at hand.

The marketing research process is often initiated by the marketing manager, who will approach the marketing researcher with a problem that requires information for decision making. For example, suppose you were the marketing manager for cranberry juice at Ocean Spray. You want to know if Asian consumers who have never heard of cranberries would buy cranberry juice. You also have other problems. The word "cranberry" is not part of any foreign language, and so you would have to find a name for it and its juice. Also, if you are going to take the product to Asia, you have to find a way to encourage consumers there to try the new product.[11] The marketing researcher has to fully understand these problems. The researcher must also remember that the best place to begin a research project is at the end. In other words, the researcher must know what is to be accomplished through the research process. In this case, as the marketing manager, what you really want to know is: Is there a market opportunity in Asia for cranberry juice? If so, how can it be exploited?

Proper problem definition is critical, since research based on incorrect problem definition will be a waste of resources. Good marketing researchers adhere to the old adage "a problem well defined is a problem half-solved." If the research problem is clear, the chances of collecting the necessary information to solve the problem are increased.

CONCEPT CHECK

1. What are reliability and validity?
2. What are the four basic stages in the marketing research process?

Exploratory Research

Your colleague, the marketing researcher at Ocean Spray, has to make a decision early on in the marketing research process. Should exploratory research be conducted in an attempt to help answer the question: is there a market opportunity in Asia for cranberry juice? As we saw earlier in the chapter, exploratory research is preliminary research conducted to clarify the scope and nature of the marketing problem. In general, it is designed to provide the researcher with a better understanding of the dimensions of the problem and is often conducted with the expectation that subsequent and more conclusive research may follow.

Most researchers will usually conduct some basic exploratory research during the early stage of the research process. The extent of the exploratory research will depend on the magnitude of the problem as well as its complexity. If the researcher decides to conduct exploratory research, he or she has three basic techniques to choose from: (1) secondary data analysis, (2) focus groups, and (3) depth interviews.

secondary data
Facts and figures that have been recorded before the project at hand.

Secondary Data Exploratory research almost always involves the use of **secondary data** (or historical data)—data previously collected and assembled for

Should Ocean Spray introduce cranberry juice in Asia when consumers there have never heard of cranberries? See the text.

Ocean Spray
www.oceanspray.com

some project other than the one at hand. **Primary data**, on the other hand, are data gathered and assembled specifically for the project at hand. As a rule, researchers gather secondary data before collecting primary data. In general, secondary data can be obtained more quickly and at a lower cost compared with primary data. However, there can be problems with secondary data. The required information may not exist, and if it does, it may not be current or particularly pertinent to the problem at hand. Still, most researchers agree that investigating secondary data sources can save researchers from "reinventing the wheel."

Researchers examine secondary data both inside and outside the organization. Internal secondary data include financial statements, research reports, customer letters, and customer lists. What did your colleague in marketing research at Ocean Spray discover during the secondary data search efforts? She was able to discover that Ocean Spray did attempt to introduce a bland cranberry juice in Japan—named "Cranby"—and the attempt fizzled, and the product was pulled off the market. As a marketing manager, this information does provide some background, but you still have more questions than answers about the possible marketing opportunity in Asia.

Sources of external secondary data can be wide and varied. One key source, for example, is the federal government, which makes data available through Statistics Canada or local libraries. Statistics Canada completes the *Census of Canada* once every decade and updates certain census data every few years. The census provides detailed information on Canadian households. Statistics Canada also prepares annual or biannual reports, including the *Family Expenditure Guide*, which gives a detailed breakdown of how families spend their money. These basic sources of information are used by manufacturers and retailers to identify the characteristics and trends of ultimate consumers.

primary data
Facts and figures that are newly collected for the project.

Statistics Canada produces many other census reports that are vital to business firms selling goods and services to organizations. Such reports include the *Census of Manufacturers*, which lists the number and size of manufacturing firms by industry group, as well as other information, including values of shipments and wages paid.

A marketing researcher can obtain from Statistics Canada its annual *Marketing Research Handbook* or the *Canada Year Book*, which includes a summary of key information often necessary to aid marketing decision making. Statistics Canada also has a database system known as CANSIM (Canadian Socio-Economic Information Management System), which marketers can access directly to examine aggregate data.

In addition to government-supplied data, trade associations, universities, and business periodicals provide detailed data of value. For example, one business periodical, *Sales and Marketing Management* (S&MM), publishes special issues each year that provide useful data for firms selling both consumer and industrial products. The most famous publication by *S&MM* is its *Annual Survey of Buying Power*. *The Financial Post* produces a publication called *Canadian Markets*, which provides demographic information and data on consumer spending power in provinces, cities, and towns across the country.

Such companies as MapInfo and ACNielsen offer both standard and customized information services to other firms on a subscription, or for-fee, basis. MapInfo can provide information on any geographic area of any size in Canada that highlights

population, income, and retail expenditure trends in that area. Figure 8–3 shows some of the secondary data sources available to marketers in Canada. There are also hundreds of useful online databanks and specialized data services, such as Dow Jones, Dialog, and Infoglobe. The WebLink box provides examples.

New marketing data services have also emerged that offer *single-source data*, which is information provided by a single firm on household demographics and lifestyles, product purchases, media habits, and responses to sales promotions, such as coupons and free samples. The principal advantage of single-source data is the ability of one service to collect, analyze, interrelate, and present all this information. For consumer product firms, such as Procter & Gamble, sales data from various channels are critical when allocating marketing resources among such channels. As a result, P&G uses single-source data providers, such as Information Resources' InfoScan and ACNielsen's ScanTrack, to collect product sales and coupon/free sample redemptions that have been scanned at the checkout counter from supermarket, drug, convenience, and mass merchandise retailers. Campbell Soup, maker of Swanson frozen dinners, used the information from a single-source data provider to shift

FIGURE 8–3
Sources of secondary data

SELECTED GUIDES, INDEXES, AND DIRECTORIES

Business Periodical Index
Canadian Almanac and Directory
Canadian Business Index
Canadian News Index
Canadian Periodical Index
Canadian Statistics Index
Canadian Trade Index
Directory of Associations in Canada
Fraser's Canadian Trade Directory
Predicasts Index
Scott's Directories
Standards Periodical Directory
Ulrich's International Periodicals Directory

SELECTED PERIODICALS AND NEWSPAPERS

Advertising Age
Adweek
American Demographics
Business Horizons
Canadian Business
Canadian Consumer
Forbes
Fortune
Harvard Business Review
Journal of Advertising
Journal of Advertising Research
Journal of Consumer Research
Journal of Marketing
Journal of Marketing Management
Journal of Marketing Research
Journal of Personal Selling and Sales Management
Journal of Retailing
Journal of Small Business
Marketing Magazine
Marketing & Media Decisions
Marketing News
Progressive Grocer
Sales and Marketing Management
The Globe and Mail
The Financial Post
The Financial Post Magazine
The Wall Street Journal

SELECTED STATISTICS CANADA PUBLICATIONS

Annual Retail Trade
Canadian Economic Observer
Canada Yearbook
Family Expenditure Guide
Market Research Handbook
Statistics Canada Catalogue

SELECTED TRADE SOURCES

ACNielsen
Conference Board of Canada
Dun & Bradstreet Canada
Financial Post Publishing
Find/SVP
Gale Research
MacLean Hunter Research Bureau
MapInfo Canada
Predicasts International
R. L. Polk

SELECTED DATABASES

CANSIM (Statistics Canada)
Dialog
Dow Jones
Infoglobe
Infomart
The Source

WEBLINK
HTTP://WWW.MCGRAWHILL.CA/COLLEGE/CRANE

Online Databases Useful in Marketing

Information in online databases available through the Internet divide into two categories: (1) indexes to articles in publications, which are accessed through keyword searches; and (2) statistical and directory data on households, products, and companies.

Online databases of indexes, abstracts, and full-text information from journals and periodicals include:

- LexisNexis' Academic Universe, which gives full-text information from more than 5000 periodicals and publications. (www.lexis-nexis.com)
- ProQuest databases, which contain academic articles from more than 8000 management, marketing, and business periodicals and journals. (www.proquest.com)

Statistical and directory information about households, products, and companies through online databases include:

- FIS online, which gives data on more than 28 000 companies that are traded on the NYSE, AMEX, and NASDAQ stock exchanges. (www.fisonline.com)
- Statistics Canada, which provides census data and detailed information on Canadian households, as well as industrial and retail trade information. (www.statcan.ca)
- Portals and search engines, such as Google (www.google.com or www.google.ca), a portal to the entire Internet. Users click on links to browse by topic or enter key words for specific searches.

Some of these sites are accessible only if a subscription fee has been paid by an organization. To check out these sites, access your college or university Web site, click on the icon for your library, and then click on these or other useful databases to which your institution subscribes.

its TV ad campaign from a serious to a light theme, which increased the sales of Swanson dinners.

Getting back to our marketing researcher at Ocean Spray and the cranberry juice in Asia question, she discovers some external secondary data, specifically a study on Taiwan consumers that shows increased consumption of juice beverages. Still, the study is not specific to cranberry juice and is about four years old. As marketing manager, you realize you still have a high degree of uncertainty about the possible marketing opportunity in Asia. So, you ask your colleague in marketing research to continue the exploratory stage of the marketing process.

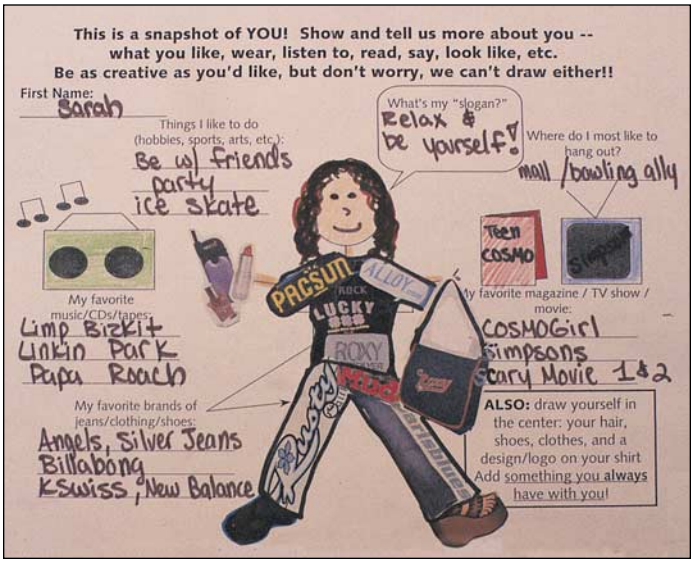
focus groups
An informal session of 6 to 10 past, present, or prospective customers, in which a discussion leader, or moderator, asks their opinions about the firm's and its competitors' products.

Focus Groups A very popular exploratory research technique designed to obtain primary data is the use of focus groups. **Focus groups** are informal interview sessions in which 6 to 10 persons, relevant to the research project, are brought together in a room with a moderator to discuss topics surrounding the marketing research problem. The moderator poses questions and encourages the individuals to answer in their own words and to discuss the issues with each other. Often, the focus-group sessions are watched by observers through one-way mirrors, and/or the sessions are videotaped. Of course, participants should be informed they are being observed and/or taped. Focus-group sessions often provide the marketer with valuable information for decision making or can uncover other issues that should be researched in a more quantitative fashion.[12]

Britain's Lewis Woolf Griptight, a manufacturer of infant and toddler products, conducted focus group sessions about possible brand names for their products before bringing a new product line to market. British consumers turned their thumbs down on using "Griptight" as a brand name for kids' products because they thought it sounded like "a carpet glue, a denture fixative, a kind of tire." So, the firm called its product line Kiddiwinks™—a British word for children.

depth interviews
A detailed, individual interview with a person relevant to the research project.

Depth Interviews Another exploratory research technique used to obtain primary data involves the use of depth interviews. **Depth interviews** are detailed individual interviews with people relevant to the research project. The researcher questions



the individual at length in a free-flowing conversational style to obtain information that may help solve the marketing problem being investigated. Sometimes these interviews can take a few hours, and they are often recorded on audio- or videotape.

Hamburger Helper did not fare too well with consumers when General Mills first introduced it. Initial instructions called for cooking separately a half pound of hamburger, which was later mixed with the noodles. Depth interviews revealed that consumers did not think the recipe called for enough meat and that they did not want the hassle of cooking in two different pots. So, the Hamburger Helper product manager changed the recipe to call for a full pound of meat and to allow users to prepare the meal in one dish; this converted a potential failure into a success.

Researchers have also become creative in devising other exploratory research techniques. For example, finding "the next big thing" for consumers has become the obsession in many industries. In order to unearth the next big thing, marketing researchers have developed some unusual techniques sometimes referred to as "fuzzy front-end" methods. These techniques are designed to identify elusive consumer tastes or trends far before typical consumers have themselves recognized them. For example, having consumers take a photo of themselves every time they snack resulted in General Mills' Homestyle "Pop Secret" popcorn, which delivers the real butter and bursts of salt in microwave popcorn that consumers thought they could only get from the stovetop variety.[13]

Other unusual techniques are also being used to try to spot trends early. For example, Teenage Research Unlimited had teenagers complete a drawing to help discover what teenagers like, wear, listen to, and read.[14] Other companies hire "cool hunters," people with tastes far ahead of the curve, to identify the "next big things" likely to sweep popular culture. Wet Seal and Skechers use this method to anticipate teenage girls' fashion picks and footwear trends.[15]

CONCEPT CHECK

1. What are secondary data?
2. What are focus groups?

FORMAL RESEARCH DESIGN

After identifying and clarifying the marketing problem, with or without exploratory research, the researcher must determine the basic framework for finding a solution to the problem. At the formal research design stage, the researcher produces a plan that outlines the method and procedures for collecting and analyzing the required information. The plan includes the objectives of the research; the sources of information to be used; the research methods (e.g., survey, experiment); the sampling plan; and the schedule and cost of the research.

In selecting basic research methods, the researcher must make decisions. In general, the objectives of the research, the available data sources, the nature of the information required, and timing and cost considerations will determine which research method will be chosen. The basic methods the researcher can choose for descriptive and causal research include: (1) survey, (2) experiment, and (3) observation.

Survey

survey
A research technique used to generate data by asking people questions and recording their responses on a questionnaire.

The most common research method of generating new or primary data is the use of surveys. A **survey** is a research technique used to generate data by asking people questions and recording their responses on a questionnaire. Surveys can be conducted by personal interview, mail, telephone, e-mail, fax, or Internet. In choosing these alternatives, the marketing researcher must balance cost against the expected quality of information obtained. Personal interview surveys have the major advantage of enabling the interviewer to be flexible in asking probing questions or getting reactions to visual materials but are very costly to conduct. Mail surveys are usually biased because those likely to respond have had especially positive or negative experiences with a given product, service, or brand. While telephone surveys allow flexibility, they are increasingly difficult to complete because respondents may hang up on the interviewer. Also, with many unlisted telephone numbers, it is becoming increasingly more difficult to obtain representative samples. E-mail, fax, and Internet surveys are restrictive in that they are limited to respondents having the technology.[16]

The high cost of reaching respondants in their homes through personal interview surveys has led to a dramatic increase in the use of *mall intercept interviews*, which are personal interviews of consumers at shopping centres. These face-to-face interviews reduce the cost of personal visits to consumers in their homes while providing flexibility to show respondents visual cues, such as ads or actual product samples. However, a critical disadvantage of mall intercept interviews is that the people selected for the interviews may not be representative of the consumers targeted for the interviews, causing possible bias in results.

Sometimes, marketers will survey over time the same sample of people, commonly known as a survey *panel*. A panel can consist of a sample of consumers, stores, or experts, from which researchers can take a series of measurements. For example, a consumer's switch from one brand of breakfast cereal to another can be measured with panel data. The use of panels is becoming more popular with marketers as they attempt to obtain ongoing information about their constituents. Panel data are often incorporated into information systems, which are discussed later in the chapter.

When marketers decide to use surveys to ask questions, they assume that (1) the right questions are being asked, (2) people will understand the questions being asked, (3) people know the answers to the questions, (4) people will answer the questions truthfully, and (5) the researchers themselves will understand the answers provided. Marketers must concern themselves not only with asking the right questions but also with how to properly word those questions. Proper phrasing of a question is vital to uncovering useful marketing information.

Figure 8–4 shows typical problems to guard against in wording questions to obtain meaningful answers from respondents. For example, in the question about whether you eat at fast-food restaurants regularly, the word "regularly" is ambiguous. Two people might answer "yes" to the question, but one might mean "once a day" while the other means "once or twice a year." Both answers appear as "yes" to the researcher who tabulates them, but they suggest that dramatically different marketing actions be directed to each of these two prospective consumers. Therefore, it is essential that marketing research questions be worded precisely so that all respondents interpret the same question similarly. Marketing researchers must also take great care not to use "leading" questions (wording questions in a way to ensure a particular response), which can lead to a very distorted picture of the respondents' actual feelings or opinions.

In Figure 8–5, we can see the number of different formats that questions can take in a survey instrument. The questions presented are taken from a Wendy's survey that assessed fast-food preferences among present and prospective consumers. Question 1 is an example of an *open-end question*, which the respondent can answer in his or her own words. In contrast, questions in which the respondent simply checks an answer are *closed-end* or *fixed alternative questions*. Question 2 is an example of the

FIGURE 8–4
Typical problems in wording questions

PROBLEM	SAMPLE QUESTION	EXPLANATION
Leading question	Why do you like Wendy's fresh meat hamburgers better than those of competitors?	Consumer is led to make statements favouring Wendy's hamburgers
Ambiguous question	Do you eat at fast-food restaurants regularly? ☐ Yes ☐ No	What is meant by word *regularly*—once a day, once a month, or what?
Unanswerable question	What was the occasion for your eating your first hamburger?	Who can remember the answer? Does it matter?
Two questions in one	Do you eat Wendy's hamburgers and chili? ☐ Yes ☐ No	How do you answer if you eat Wendy's hamburgers but not chili?
Nonexhaustive question	Where do you live? ☐ At home ☐ In dormitory	What do you check if you live in an apartment?
Non–mutually exclusive answers	What is your age? ☐ Under 20 ☐ 20–40 ☐ 40 and over	What answer does a 40-year-old check?

FIGURE 8–5
Sample questions from Wendy's survey

1 What things are most important to you when you decide to eat out and go to a restaurant?

_____
_____
_____
_____
_____
_____

2 Have you eaten fast-food restaurant food in the past month?
☐ Yes ☐ No

3 If you answered "yes" to Question 2, how often do you eat fast food?
☐ Once a week or more ☐ Two or three times a month ☐ Once a month or less

4 How important is it to you that a fast-food restaurant satisfy you on the following characteristics? Check the box that describes your feelings.

CHARACTERISTIC	VERY IMPORTANT	SOMEWHAT IMPORTANT	IMPORTANT	UNIMPORTANT	SOMEWHAT UNIMPORTANT	VERY UNIMPORTANT
Taste of food	☐	☐	☐	☐	☐	☐
Cleanliness	☐	☐	☐	☐	☐	☐
Price	☐	☐	☐	☐	☐	☐
Variety on menu	☐	☐	☐	☐	☐	☐

5 Check the space on the scale below that describes how you feel about Wendy's on the characteristics shown.

CHARACTERISTIC	CHECK THE SPACE DESCRIBING HOW WENDY'S IS	
Taste of food	Tasty	Not tasty
Cleanliness	Clean	Not clean
Price	Inexpensive	Expensive
Variety on menu	Broad	Narrow

Continued

FIGURE 8–5
(Concluded)

6 Check the box that describes your agreement or disagreement with the following statements.

STATEMENT	STRONGLY AGREE	AGREE	DON'T KNOW	DISAGREE	STRONGLY DISAGREE
Adults like to take their families to fast-food restaurants.	☐	☐	☐	☐	☐
Our children have a say in where the family eats.	☐	☐	☐	☐	☐

7 How important are each of the following information sources when you select a fast-food restaurant?

SOURCE OF INFORMATION	VERY IMPORTANT SOURCE	SOMEWHAT IMPORTANT SOURCE	NOT AN IMPORTANT SOURCE
Television	☐	☐	☐
Newspapers	☐	☐	☐
Radio	☐	☐	☐
Billboards	☐	☐	☐
Flyers	☐	☐	☐

8 In the past month, how often have you eaten at each of these three fast-food restaurants?

RESTAURANT	ONCE A WEEK OR MORE	TWO OR THREE TIMES A MONTH	ONCE A MONTH OR LESS
Burger King	☐	☐	☐
McDonald's	☐	☐	☐
Wendy's	☐	☐	☐

9 Please answer the following questions about you and your household.

a Are you ☐ Male ☐ Female

b Are you ☐ Single ☐ Married ☐ Other (widowed, divorced)

c How many children under age 18 live in your home?
☐ 0 ☐ 1 ☐ 2 ☐ 3 or more

d What is your age?
☐ under 25 ☐ 25–44 ☐ 45 or over

e What is your approximate total annual household income?
☐ Less than $15 000 ☐ $15 000–$49 999 ☐ $50 000 or more

simplest fixed alternative question, a *dichotomous question* that allows only a "yes" or "no" answer. A fixed alternative question with three or more choices uses a scale. Question 5 is an example of a question that uses a *semantic differential scale*, a nine-point scale in which the opposite ends have one- or two-word adjectives that have opposite meanings. For example, depending on how clean the respondent believes that Wendy's is, he or she would check the left-hand space on the scale, the right-hand space, or one of the seven intervening points. Question 6 uses a *Likert scale*, in which the respondent is asked to indicate the extent to which he or she agrees or disagrees with a statement.

The questionnaire in Figure 8–5 is an excerpt of a precisely worded survey that provides valuable information to the marketing researcher at Wendy's. Questions 1 to 8 inform him or her about the likes and dislikes in eating out, frequency of eating out at fast-food restaurants generally and at Wendy's specifically, and sources of information used in making decisions about fast-food restaurants. Question 9 gives

details about the personal or household characteristics which can be used in trying to segment the fast-food market, a topic discussed in Chapter 9.

Surveys of distributors—retailers and wholesalers in the marketing channel—are also very important for manufacturers. A reason given for the success of many Japanese consumer products in Canada, such as Sony Walkmans and Toyota automobiles, is the emphasis that Japanese marketers place on obtaining accurate information from their distributors.

Electronic technology has revolutionized the traditional concept of surveys. Today, respondents can walk up to a kiosk in a shopping centre, read questions off a screen, and key their answers into a computer on a touch screen. For example, Labatt Breweries Ltd. has used an interactive kiosk in the shape of a beer can and rewards customers with coupons as a thank-you for completing an electronic survey. Even fully automated systems exist for conducting surveys by telephone. An automated voice questions respondents over the telephone, who key in their replies on a touch-tone telephone.

Experiment

experiment
Obtaining data by manipulating factors under tightly controlled conditions to test cause and effect.

Another method that can be used by marketing researchers to generate primary data is the experiment. Marketing experiments offer the potential for establishing cause-and-effect relationships (causal research). An **experiment** involves the manipulation of an independent variable (cause) and the measurement of its effect on the dependent variable (effect) under controlled conditions.

In marketing experiments, the independent variables are often one or more of the marketing mix variables—sometimes called the marketing *drivers*—such as product features, price, or promotion used. An ideal dependent variable usually is a change in purchases by an individual, household, or entire organization. If actual purchases cannot be used as a dependent variable, factors that are believed to be highly related to purchases, such as preferences in a taste test or intentions to buy, are used.

Wendy's changes continuously in response to changing customer wants while keeping its "Fresh, hot'n juicy®" image.

Wendy's Restaurant
www.wendys.com

Test marketing led to Grocery Gateway's entry into the Internet-based retail grocery business.

Grocery Gateway
www.grocerygateway.com

A potential difficulty with experiments is that an extraneous (or outside) variable can distort the results of an experiment and affect the dependent variable.

Experiments can be conducted in the field or in a laboratory. In *field experiments*, the research is conducted in the real world, such as in a store or bank, or on the street, wherever the behaviour being studied occurs naturally. Field experiments can be expensive but are a good way to determine people's reactions to changes in the elements of the marketing mix. Test marketing is probably the most common form of field experiments. Kraft Canada used test marketing before introducing its microwavable, prebaked cookie to the Canadian marketplace. And Toronto-based Grocery Gateway, Canada's first fully integrated Internet grocery retailer, used test marketing before entering the online grocery business. Remember your problem regarding cranberry juice at Ocean Spray? You wanted to know if Asian consumers would buy cranberry juice when they had never tasted cranberries? Perhaps your marketing research colleague might recommend taste tests in Asia to gauge consumers' responses to the product.

Because marketers cannot control all the conditions in the field, they sometimes turn to a laboratory setting. Laboratories are not the real world but do offer highly controlled environments. Unlike in the field, the marketer has control over all the factors that may impact the behaviour under investigation.

For example, in a field experiment, the marketer may wish to examine the impact of a price reduction on the sales of a particular product. The competition, however, may see the price reduction and offer their own price deal, thus interfering with the possible results of the field experiment. This does not occur in a laboratory setting. Many companies are using laboratory settings where they can control conditions but can do so in a real-world fashion, such as simulated supermarkets or test stores. Here, they can experiment with changes in aisle displays, packaging changes, or other variables that may affect buyer behaviour without the fear of other extraneous factors influencing the results.

Observation

observation
Watching, either mechanically or in person, how people behave.

Another basic research method used to obtain primary data is observation. In general, **observation** involves watching, either mechanically or in person, how people behave. In some circumstances, the speed of events or the number of events being observed make mechanical or electronic observation more appropriate than personal observation. Retailers, for example, can use electronic cameras to count the number of customers entering or leaving a store.

A classic form of mechanical observation is Nielsen Media Researcher's "people meter," which is a box attached to television sets, VCRs, cable boxes, and satellite dishes in selected households in Canada and the United States in order to determine the size of audiences watching television programs delivered by the networks. When a household member watches TV, he or she is supposed to push a button on a remote and push it again when viewing stops. The information is transmitted and analyzed by Nielsen in order to measure who in the household is watching what program on every TV set owned.

This information is used to calculate ratings for each TV program, which, in turn, is used to set advertising rates for such programs. But people meters have limitations—as with all observations collected mechanically. Critics do not believe the devices accurately measure who is watching a given TV program or what is actually watched. Moreover, people meters cannot measure large segments of the population that watch TV programs at parties, hotels, or sports bars. A new "passive, portable

people meter" is now being tested by Nielsen and Arbitron, a service firm that also measures cable TV viewership as well as radio listenership. This device, which is the size of a pager, is carried by consumers and automatically detects inaudible codes in the programming of TV, cable, and radio broadcasters, at both in-home and outside venues. Each night, participants place the meter into a base station, which then transmits the data to Nielsen/Arbitron for analysis.[17]

Nielsen also uses an electronic meter to record Internet user behaviour. These data are collected by tracking the actual mouse clicks made by users as they surf the Internet via a meter installed on their home or work computers. Nielsen has been able to identify the Web sites that have the largest audiences, the top advertising banners viewed, the top Internet advertisers, and global Internet usage for selected countries.

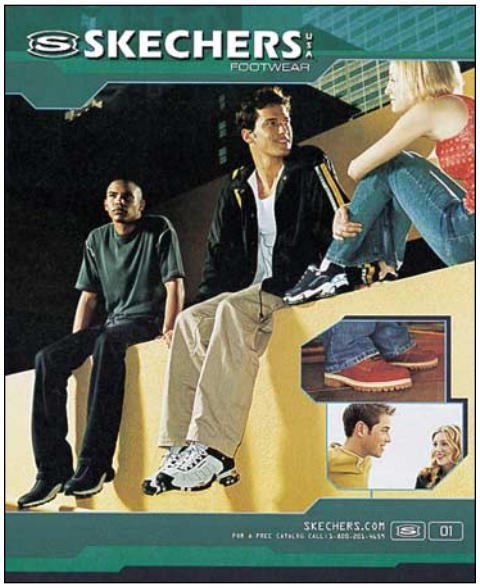
Watching consumers in person or by videotaping them are other observational approaches used to collect primary data. For example, Aurora Foods observes how consumers bake cakes in its Duncan Hines test kitchens to see if baking instructions on the cake box are understood and followed correctly. In order to develop better products Fisher-Price uses its licensed nursery schools to observe how children use or abuse toys. Gillette marketing researchers actually videotaped consumers brushing their teeth in their own bathrooms to find out how they really brush—not just how they say they brush. The result: Gillette's new Oral-B CrossAction toothbrush that is supposed to do a better job![18]

ethnographic research
Observational approach to discover subtle emotional reactions as consumers encounter products in their "natural use environment."

A specialized observational approach is **ethnographic research**, in which anthropologists and other trained observers seek to discover subtle emotional reactions as consumers encounter products in their "natural use environments," such as in homes, cars, or hotels. For example, Best Western, a hotel chain, paid couples to videotape themselves as they spent three to seven days on a cross-country car trip. From this, Best Western found that women usually decided when to pull off the road and where to stay—the reverse of what was found during focus group research. The result: Best Western targets women more often with its promotional messages.[19] Read the accompanying Marketing NewsNet box to see just how a new shower head came to market as a result of ethnographic research.[20]

Another novel approach to obtaining observational data is the hiring of *mystery shoppers*. Companies hire people to pose as real customers and have them go through an exchange process and record their observations in detailed reports. For example, a mystery shopper might be paid to travel to a vacation resort, eat at restaurants, play golf, open up bank accounts, test-drive new cars at auto dealers, or shop

How do you do marketing research on such things as toothbrushes and fashion products for teenagers? For some creative answers, see the text.



for groceries or clothes. The information they provide based on their observations often gives marketers unique insight that cannot be obtained any other way. There are Canadian mystery shopping companies, just in case you want a job like this!

Personal observation is both useful and flexible, but it can be costly and unreliable, especially when different observers report different conclusions in watching the same activities. Also, although observation can reveal what people do, it cannot determine why they do it, such as why they are buying or not buying a product. To determine why consumers behave as they do, marketing researchers must talk with consumers and record their responses. This is usually accomplished through the use of surveys.

Is There an Optimal Research Design?

In short, there is no optimal research design. A researcher may choose among a variety of alternative methods for solving a particular marketing problem. A good marketing researcher understands that there is likely to be more than one way to tackle a problem. The ability to select the most appropriate research design develops with experience. Inexperienced researchers often embrace the survey method as the best design because they are most familiar with this method. More experienced researchers, on the other hand, recognize the value of other methods and can often put together creative research designs that can solve marketing problems more quickly and less expensively. Experienced researchers often note that the proper definition of marketing plays a central role in determining the most appropriate research design.

MARKETING NEWSNET

The Naked Truth: Marketing Researchers Search for the Perfect Shower Head

As this chapter points out, a specialized observational research method is called *ethnographic research*. In short, researchers observe consumers interacting with products in their natural use environment. Before Moen Inc. put its new massaging shower head, the Revolution, on the market, it wanted to see what consumers thought about the new product design. But Moen did not want to just give consumers the shower head and later ask them if they liked it or not. The company wanted to see the consumers actually using the product . . . in the shower. So, it hired QualiData Research Inc. to do some observational research. Moen believed that people would not be able or willing to articulate what they really wanted in a shower head or why they liked or did not like the new shower head that Moen had developed. QualiData believed the only way to get real answers would be to watch people use the product in the shower. Obviously, not everyone would be willing to allow a stranger to observe or videotape them showering in the buff. So, Moen and QualiData decided to enlist nudists as their volunteers. They wanted at least 20 people, males and females of various ethnicities, who varied in age and body type. For $250 each, the volunteers allowed the researchers to come into their homes. They answered the researchers' questions about their lifestyles, while other team members installed a tiny video camera in the shower of each volunteer.

What truths did the videos reveal? Well, they showed that most people have only one hand free while they shower and that most people close their eyes sporadically while showering. The videos also showed that often bathroom lighting did not penetrate the shower curtain. Because of these constraints, people showering had a hard time fumbling around with massage settings. As a result of the research, the new Revolution massaging shower head has a peanut-shaped control dial below the water stream that allows consumers to constantly adjust the force and pulse of the water while providing coverage. The centre of the shower head spins and wobbles so that each stream of water twists and twirls, hence the name Revolution.

The Revolution appears to be a hit, selling out in many stores. Moen executives are not surprised, given the research effort to unearth consumer preferences. Oh—the cost of the shower head is about $60. Moen believes consumers will pay that price, given that it engineered the product exactly to consumer specifications!

Sampling

Although sampling is an inherent component of the research design stage, it is a distinctive aspect of the research process. The researcher's sampling plan indicates who is to be sampled, how large a sample is needed, and how the sampling units will be selected. Rarely does a research project involve a complete census of every person in the research population. This is because of the time and cost involved in conducting a census. Thus, sampling is used. **Sampling** is the process of gathering data from a subset of the total population rather than from all members (census) of that particular population. A *sample*, then, is a subset from a larger population.

sampling
The process of selecting subsets from a population.

If proper statistical procedures are followed, a researcher does not need to select every member in a population because a properly selected sample should be representative of the population as a whole. However, errors can and do occur in sampling, and the reliability of the data obtained through sampling can sometimes become an issue. Thus, the first and most critical sampling question for researchers to ask is: who is to be sampled?

Another key question concerns the sample size: how big should the sample be? As mentioned, it is usually unrealistic to expect a census of the research population be conducted. In general, larger samples are more precise than smaller ones, but proper sampling can allow a smaller subset of the total population to provide a reliable measure of the whole.

The final question in the sampling plan concerns how to select the sampling units. There are two basic sampling techniques: probability and nonprobability sampling. **Probability sampling** involves precise rules to select the sample such that each element of the population has a specific known chance of being selected. For example, if your university wants to know how last year's 1000 graduates are doing, it can put their names in a bowl and randomly select 100 names of graduates to contact. The chance of being selected—100/1000 or 0.10—is known in advance, and all graduates have an equal chance of being contacted. This procedure helps select a sample (100 graduates) that should be representative of the entire population (the 1000 graduates) and allows conclusions to be drawn about the entire population.

probability sampling
Using precise rules to select the sample such that each element of the population has a specific known chance of being selected.

Nonprobability sampling involves the use of arbitrary judgment by the marketing researcher to select the sample so that the chance of selecting a particular element of the population is either unknown or zero. If your university decided to talk to 100 of last year's graduates but only those who lived closest to the university, many class members would be arbitrarily eliminated. This has introduced a bias, or possible lack of representativeness, which may make it dangerous to draw conclusions about the entire population of the graduating class. Nonprobability samples are often used when time and budgets are limited and are most often used for exploratory research purposes. In general, marketing researchers use data from such samples with caution.

nonprobability sampling
Using arbitrary judgments to select the sample so that the chance of selecting a particular element may be unknown or zero.

CONCEPT CHECK

1. What is a survey?
2. Which research method offers the potential for establishing cause-and-effect relationship?
3. What is sampling?

DATA COLLECTION AND ANALYSIS

Once the research design has been formalized, the process of gathering or collecting data begins. Sometimes referred to as *fieldwork*, data collection at this stage of the research process includes all the activities that the researcher (and staff) undertakes to obtain data from the identified sources or respondents. Since there are several

research methods that could be used by the researcher, this means there may be multiple ways to collect the data. For example, with the survey method, data may be collected by telephone, mail, or personal interview.

However the data are collected, it is important to minimize errors in the process. Most research experts agree that the data collection stage of the research process is one of the major sources of error in marketing research. Some of the errors that occur are a result of a variety of problems ranging from failure to select the right respondents to incorrect recording of observations. Competent and well-trained researchers inside the organization or those employed by outside research companies can go a long way in ensuring proper data collection.

The next step for the marketing researcher is data analysis. Mark Twain once observed, "Collecting data is like collecting garbage. You've got to know what you're going to do with the stuff before you collect it." In essence, the marketing researcher must know *why* the data are being collected and *how* to analyze them effectively in order for the data to have any value in decision making.

The level of analysis conducted on the data depends on the nature of the research and the information needed to provide a solution to the marketing problem. For survey data, frequency analysis is completed—calculating the responses question by question. The researcher may then wish to identify patterns in the data or examine how data pertaining to some questions may relate to data obtained from asking other questions. Probably the most widely used technique for organizing and analyzing marketing data is cross-tabulation. This method is particularly useful for market segmentation analysis.

CONCLUSIONS AND REPORT

At this stage of the process, the marketing researcher, often in conjunction with marketing management, must review the analysis and ask: what does this information tell us? A critical aspect of the marketing researcher's job is to interpret the information and make conclusions with regard to managerial decision making. The researcher must prepare a report to communicate the research findings. Included in this report should be suggestions for actions that might be taken by the organization to solve the marketing problem.

The researcher must be careful not to overwhelm management with technical terminology. Rather, the report should highlight the important results and conclusions in a clear and concise manner. Ultimately, the marketing researcher and management must work closely together to ensure proper interpretation of the research results. In addition, management must make a commitment to act—to make decisions based on the research and their good judgment and knowledge of the situation. In other words, someone must "make something happen" to see that a solution to the marketing problem gets implemented. Failure to act on the research findings creates an appearance that the marketing research effort is of little value. Finally, once implemented, the proposed solution should be monitored to ensure that intended results do occur.

ETHICAL ISSUES IN THE MARKETING RESEARCH PROCESS

According to the Marketing Research and Intelligence Association (MRIA), Canada's national association for professional marketing researchers, 9 in 10 Canadians support marketing and survey research and believe it serves a valuable societal purpose. However, unethical practices by some individual organizations are threatening the goodwill that Canadians have toward research.[21] Ethical issues can arise in the marketing researchers' relationships with all parties involved in the research

Ethics and Social Responsibility Alert

Standards for Public Release of Marketing Research Results in Canada

Marketing Research and Intelligence Association (MRIA) (www.camro.org), Canada's national association for professional marketing researchers, has developed a set of guidelines and recommendations for all its members to follow when releasing marketing research results to the public. The guidelines are as follows:

1. Include the following key facts in the report: sample size and population surveyed; sponsor of study; survey method (e.g., telephone, online, intercept); timing (when the project was done); and a statement of sample error/margin of error (i.e., ±2.5%/19 times out of 20).
2. Make the following facts available to the public upon request (if not included in the report): name of practitioner (who did the research); sampling method (e.g., random, custom list); weighting procedures, if used; and exact wording and order of questions.
3. Always differentiate between scientific and nonscientific studies.
4. Where appropriate, use the caveat that research is not necessarily predictive of future outcomes but rather captures opinion at one point in time.

MRIA has also issued additional standards regarding the reporting of qualitative research (e.g., focus groups, depth interviews). These guidelines include: clearly defining the recruiting specifications (e.g., product usage, party affiliation, specific demographic specification); inclusion of a statement of nonprojectability—results of qualitative research are not statistically projectable to the population at large; and in qualitative reporting, noninclusion of percentages or precise proportions. Such expressions as *some*, *most*, or *a few* may be used.

What do you think about MRIA's guidelines? Do they address all the possible ethical and socially responsible aspects of reporting research to the public?

process, including the respondents, the general public, their organizations, and/or clients. Professional marketing researchers must make ethical decisions regarding the collecting, using, and reporting of research data. Examples of unethical behaviour include failure to report problems with research results because of incomplete data, reporting only favourable results, using deception to collect information, and breaching the confidentiality of respondents.[22] Many companies are also collecting clickstream data when consumers go online, and sometimes these data are used for marketing purposes without the knowledge and consent of the consumer. The MRIA has developed formal ethical standards, guidelines, and policies for all its members to adhere to with regard to all aspects of marketing research. An example of a formal set of guidelines pertaining to the release of marketing research results is seen in the Ethics and Social Responsibility Alert box.[23]

USING INFORMATION TECHNOLOGY TO TRIGGER MARKETING ACTIONS

Today's marketing managers can be drowned in such an ocean of data that they need to adopt strategies for dealing with complex, changing views of the competition, the market, and the consumer. The Internet and the PC power of today provide a gateway to exhaustive data sources that vary from well organized and correct to disorganized and incorrect.

The Marketing Manager's View of Sales "Drivers"

Figure 8–6 shows a marketing manager's view of the product or brand "drivers," the factors that influence buying decisions of a household or organization and, hence,

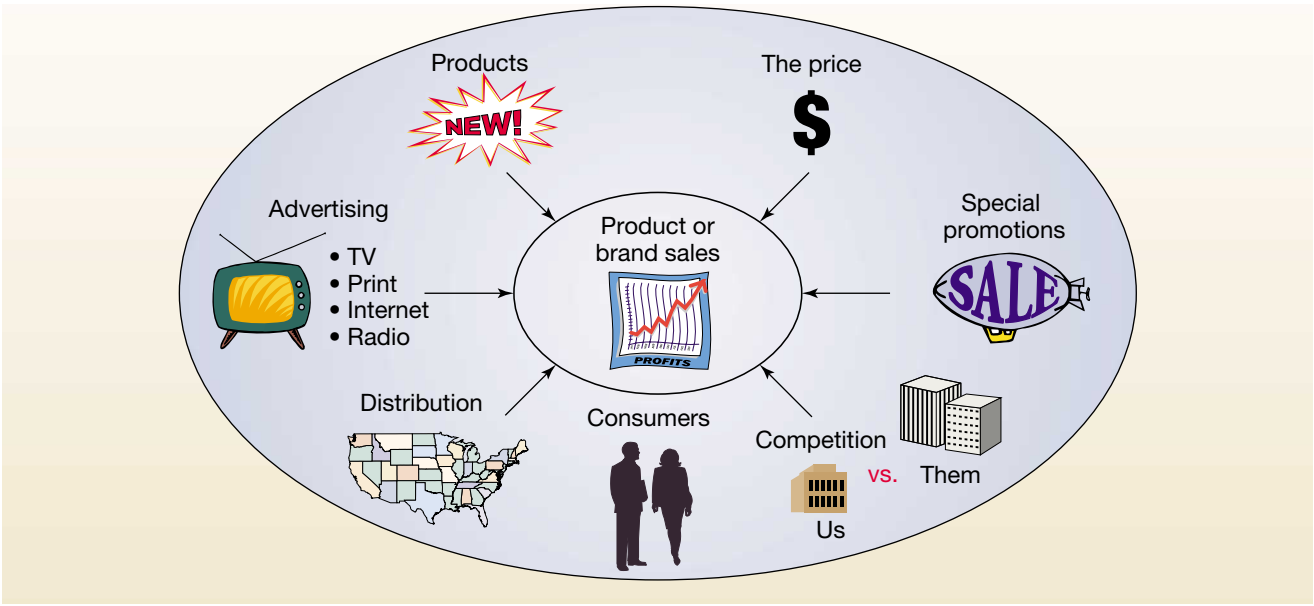


FIGURE 8–6
Product and brand drivers: factors that influence sales

SOURCE: Used by permission of Ford Consulting Group, Inc.

sales. These drivers include both the controllable marketing mix factors, such as product and distribution, as well as uncontrollable factors, such as competition and the changing tastes of households or organizational buyers.

Understanding these drivers involves managing this ocean of data. Sometimes, hundreds of thousands of bits of data are created each week. Sources feeding this database ocean range from internal data about sales and customers to external data from syndication services and TV ratings. The marketer's task is to convert this data ocean into useful information on which to base informed decisions. In practice, some market researchers distinguish *data*—the facts and figures—from *information*—the distilled facts and figures whose interpretation leads to marketing actions.

Current information about products, competitors, and customers is almost always accessed and analyzed by computer. So, today, these activities fall under the broader term of **information technology**, which involves a computer and communication system to satisfy an organization's needs for data storage, processing, and access.

information technology
A computer and communication system to satisfy an organization's needs for data storage, processing, and access.

Key Elements of an Information System

Figure 8–7 shows how marketing researchers and managers use information technology to frame questions that provide answers leading to marketing actions. At the bottom of Figure 8–7, the marketer queries the databases in the information system with marketing questions that need answers. These questions go through statistical models that analyze the relationships existing among the data. The databases form the core, or *data warehouse,* where the ocean of data is collected and stored. After the search of this data warehouse, the models select and link the pertinent data, often presenting them in tables and graphics for easy interpretation. Marketers can also use *sensitivity analysis* to query the database with "what if" questions to determine how a hypothetical change in a driver, such as advertising, can affect sales.

Data Mining: A New Approach to Searching the Data Ocean

Traditional marketing research typically involves identifying possible drivers and then collecting data: Increasing couponing (the driver) during spring will increase trial by first-time buyers (the result). Marketing researchers then try to collect information to attempt to verify the truth of the relationship.

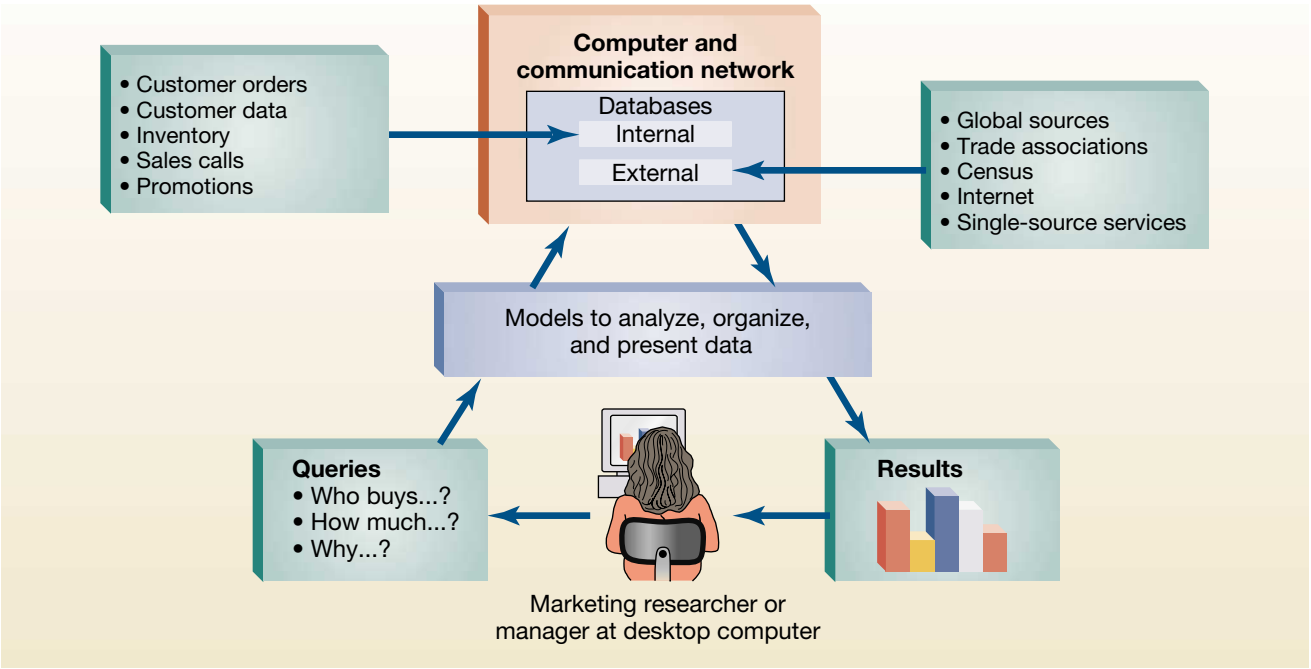


FIGURE 8–7
How marketing researchers and managers use information technology to turn information into action

data mining
The extraction of hidden predictive information from large databases

In contrast, **data mining** is the extraction of hidden predictive information from large databases. Catalogue companies, such as Sears Canada and Lands' End, use data mining to find statistical links that suggest particular marketing actions. Data mining, in fact, often plays a critical role in a company's customer relationship management (CRM) efforts. Through data mining, a company can monitor customer behaviour and determine appropriate strategies based on that behaviour. For example, one catalogue company studies about 3500 variables over the lifetime of a customer's relations with the company and its catalogue. It found that customers who change residences are three times more likely to buy new tables and decorative products than other customers who do not change residences. So, the company actually created a catalogue geared to customers who have recently moved.

Some purchase patterns are common sense. Peanut butter and grape jelly purchases link and might suggest a joint promotion between Kraft peanut butter and Welch's grape jelly. Other patterns link seemingly unrelated purchases. Supermarkets mined checkout data scanners and discovered that men buying diapers in the evening sometimes buy a six-pack of beer as well. So, the supermarkets placed diapers and beer near each other. Placing potato chips between them increased sales on all three.

Still, the success in data mining ultimately depends on humans—the marketing managers and researchers—and their judgments in how to select, analyze, and interpret the information.

CONCEPT CHECK

1. What does a marketing manager mean when she talks about a sales "driver"?
2. How does data mining differ from traditional marketing research?

CHAPTER IN REVIEW

1 *Know what marketing research is.*
Marketing research is the process of defining a marketing problem or opportunity, systematically collecting and analyzing information, and recommending actions to improve an organization's marketing activities. Marketing research is used by executives to aid in the decision-making process.

2 *Explain the different types of marketing research.*
There are three basic types of marketing research: (1) exploratory research—preliminary research conducted to clarify the scope and nature of the marketing problem, (2) descriptive research—research designed to describe basic characteristics of a given population or to profile particular marketing situations, and (3) causal research—research designed to identify cause-and-effect relationships among variables.

3 *Understand the stages in the marketing research process.*
The four basic stages in the marketing research process generally are: (1) defining the problem, (2) determining the research design, (3) collecting and analyzing data, and (4) drawing conclusions and preparing a report. The first stage—problem definition—is critical, since research based on incorrect problem definition will be a waste of resources. At the research design stage, the researcher produces a plan that outlines the methods and procedures for collecting and analyzing the required information. The plan includes the objectives of the research, the sources of information to be used, the research methods, the sampling plan, and the schedule and cost of the research.

4 *Explain the use of secondary data, surveys, experiments, and observation in marketing research.*
The marketing research can utilize secondary data—data previously collected and assembled for some other project than the one at hand. These data consist of information from both inside and outside the organization that may provide some insight into the marketing problem and its solution. If it does not, the marketing researcher may turn to the collecting of primary data—new data gathered and assembled specifically for the project—which can be obtained via surveys, experiments, and observation. A survey generates data by asking people questions and recording their responses on a questionnaire. An experiment involves the manipulation of an independent variable (e.g., price) and measuring its effect on the dependent variable (e.g., purchase behaviour). Observation involves watching, either mechanically or in person, how people actually behave.

5 *Explain how information technology and data mining link massive amounts of marketing information to meaningful marketing actions.*
Today's marketing managers are often overloaded with data—from internal data to those provided on, say, TV viewing habits or on grocery purchases from the scanner data at checkout counters. This can involve millions of bits of new information in a week or a month. So, information technology enables massive amounts of marketing data to be stored, processed, and accessed. Using this information technology, databases are queried using data mining to find statistical relationships to aid in marketing decisions and actions.

FOCUSING ON KEY TERMS

data mining p. 219
depth interviews p. 206
ethnographic research p. 213
experiment p. 211
focus groups p. 206
information technology p. 218
marketing research p. 199
nonprobability sampling p. 215
observation p. 212
primary data p. 204
probability sampling p. 215
sampling p. 215
secondary data p. 203
survey p. 208

DISCUSSION AND APPLICATION QUESTIONS

1 Is it possible to make effective marketing decisions without marketing research?

2 Why is the problem definition stage of the marketing research process probably the most important stage?

3 You plan to open an ice cream shop in your town. What type of exploratory research would you conduct to help determine its feasibility? You find the exploratory research does not answer all your questions. You decide to do a survey to determine whether you should open the shop. What kind of questions will you ask? Whom do you ask?

4 Suppose you are trying to determine the top three favourite department stores in your area. You show customers at a shopping mall a list of department stores and ask them to rank their three favourite stores from 1 to 3 (with 1 being the favourite). What problems can occur with the survey?

5 Your university bookstore wants to find out students' opinions about the store's merchandise, prices, and customer service. What type of marketing research would you recommend to the store?

6 You are a marketing researcher observing what people do when selecting bread in a supermarket. You are behind a one-way mirror, and the customers do not know they are being observed. During the course of the day, you observe several people shoplifting a smaller snack product near the bread section. You know personally two of the shoplifters you see. What are the ethical problems you face in this situation?

7 You plan to open a new rent-a-car business. You have drafted a survey you want to distribute to airline passengers. The survey will be left at the airports, and respondents will mail the surveys back in a prepaid envelope. Some of the questions you plan to use are shown below. Use Figure 8–4 to (*a*) identify the problem with each question, and (*b*) correct it. (**Note**: Some questions may have more than one problem.)

a. Do you own your own car or usually rent one?
____ Yes ____ No

b. What is your age? ____ 21–30 ____ 30–40 ____ 41–50 ____ 50+

c. How much did you spend on rental cars last year?
____ $100 or less ____ $101–$400 ____ $401–$800 ____ $800–$1000 ____ $1000 or more

d. What is a good daily rental car rate? _____

GOING ONLINE

What's New in Marketing Research?

WorldOpinion calls its Web site "The World's Market Research Web Site." To check out the latest marketing research news, job opportunities, and directories of more than 8500 research locations in 99 countries, go to www.worldopinion.com, and do the following:

1. Click on the "News" link on WorldOpinion's home page to read about the current news and issues facing the market research industry.
2. Click on "The Frame" link, a set of online articles published by Survey Sampling, International.

Do you want to get better grades and stay up to date with current issues in marketing? Visit the Online Learning Centre at www.mcgrawhill.ca/college/crane for practice tests, video cases, resources for building a marketing plan, *Globe and Mail* headlines, access to *Marketing Magazine*, and other learning and study tools.

Online LearningCentre
Marketing MAGAZINE

VIDEO CASE 8 Ford Consulting Group, Inc.: from Data to Actions

"The fast pace of working as a marketing professional isn't getting any easier," agrees David Ford, as he talks with Mark Rehborg, Tony's Pizza brand manager. "The speed of communication, the availability of real-time market information, and the responsibility for a brand's profit make marketing one of the most challenging professional jobs today."

Mark responds, "Ten years ago, we could reach 80 percent of our target market with 3 television spots—but today, to reach the same 80 percent, we would have to buy 97 spots. We haven't the luxury to be complacent—our core consumer, the 6- to 12-year-old 'big kid,' is part of a savvy, wired culture that is changing rapidly."

THE COMPANY AND ITS CLIENTS

David Ford, president of Ford Consulting Group (FCG), assists clients such as Tony's in translating the market and sales information into marketing actions. Mark executes ideas that will draw consumers to Tony's and manages sales and profit performance. He distributes budgeted funds to promote the product. Feedback from the sales force requesting promotion funds is a common occurrence.

The information that FCG consultants and Tony's use most often for this analysis comes from places like AC Nielsen's ScanTrack and Information Resources' InfoScan (IRI) that summarize sales data from grocery stores and other outlets that scan purchases at the checkout.

FCG's typical consulting project involves helping clients make sense of their existing information, *not* in helping clients collect more information. Most often the client has a critical time deadline for FCG's data analysis and action recommendations: The client "wants" the answer a week ago, about four days *before* it hires FCG!

The project that follows is typical of the work Ford Consulting Group (www.fordconsultinggroup.com) undertakes for a client. The data are hypothetical, but the situation is a very typical one in the grocery products industry. Here's a snapshot of some of the terms in the case:

- "You" have just come on the job, as the new marketing person.
- "NE" is the Northeastern sales region of Tony's.
- "SE, NW, SW" are the other sales regions.

PART 1: A TYPICAL QUESTION, ON A TYPICAL DAY

Let's dive into the background of a typical question you might face, on a typical day. On the opposite page are some memos you are given (one from Mark to you) as background.

You dig into Lauretta's data files and develop Table 1 that shows how Tony's is doing in the company's four sales regions and the entire United States on key marketing dimensions. Without reading further, take a deep breath and try to answer question 1 below.

PART 2: UNCOVERING THE TRUTH

Let's assume your analysis (question 1) shows NE is a problem, so we need to understand what's going on in the NE. You dig into the data and develop Table 2. It shows the situation for the four largest supermarket chains in the Northeast sales region that carry Tony's. Now answer question 2.

QUESTIONS

1 Study Table 1. (*a*) How does the situation in the Northeast compare with the other regions in the United States? (*b*) What appears to be the reason(s) that sales are soft? (*c*) Write a 150-word e-mail with attachments to Mark Rehborg, your boss, giving your answers to *b*.

2 Study Table 2. (*a*) What do you conclude from this information? (*b*) Summarize your conclusions in a 150-word e-mail with attachments to Mark, who needs them for a meeting tomorrow with Margaret, the Northeast sales region manager. (*c*) What marketing actions might your memo suggest?

TO: Mark Rehborg, Tony's Brand Manager
FROM: Steve Quam, Tony's Field Sales
CC: Margaret Loiaza, NE Sales Region Manager

RE: Feedback on Sales Call at Food-Fast

Hi Mark—

Our sales call at Food-Fast wasn't so great. They don't see how our Tony's is going to sell well enough to justify the additional shelf-space. I also talked to Margaret and she said that second quarter may be weaker than planned across all the NE, and I should give you a heads-up. (She's on vacation this week, Aruba!) She's planning to schedule some time with you to talk about additional promotion money to do catch-up in the third quarter. She'll be there next week.

Steve

TO: You, the New Marketing Person
FROM: Mark Rehborg, Tony's Brand Manager (Your Boss)

RE: Small Project due Friday

Hi You,

Can you help out here? I've got a meeting with Margaret on Friday afternoon, and she's concerned that Food-Fast and the whole NE is going to need some additional promotion dollars.

Lauretta started the analysis and was hurt in a kick-boxing accident yesterday and won't be back to work for a week. Her files are attached. Can you look through her files and summarize what's going on in the NE and the rest of the U.S.? Does Margaret need more promotion money?

Let's discuss Friday AM.

Mark

TABLE 1. COMPARISON OF TONY'S PERFORMANCE, BY REGION

REGION	QUARTERLY CHANGE IN VOLUME (%)	DISTRIBUTION[a] (%)	PRICE ($)	PRICE GAP[b] ($)	PROMOTION SUPPORT[c] (%)	PROMOTION VOLUME[d] (%)
NE	3%	93%	$1.29	18	7%	14%
SE	5	95	1.11	21	9	16
NW	8	98	1.19	11	8	15
SW	6	96	1.25	0	8	15
U.S.	6	97	1.19	0	8	15

[a] % of outlets carrying Tony's.
[b] Price gap 5 (Our price) 2 (Competitor's price).
[c] Promotion support 5 % of the time brand was promoted.
[d] Promotion volume 5 % of the volume sold on promotion.

TABLE 2. COMPARISON OF MAJOR SUPERMARKET CHAINS IN THE NORTHEAST

SUPER-MARKET CHAIN	QUARTERLY CHANGE IN VOLUME (%)	DISTRIBUTION[a] (%)	PRICE ($)	PRICE GAP[b] ($)	PROMOTION SUPPORT[c] (%)	PROMOTION VOLUME[d] (%)
Save-a-lot	5%	95%	$1.39	110	10%	19%
Food-Fast	0	90	1.28	21	3	4
Get-Fresh	0	90	1.30	11	3	4
Dollars-Off	7	97	1.34	15	7	14