IN THIS CHAPTER, WE WILL ADDRESS THE FOLLOWING QUESTIONS:

1. What constitutes good marketing research?
2. What are good metrics for measuring marketing productivity?
3. How can marketers assess their return on investment of marketing expenditures?
4. How can companies more accurately measure and forecast demand?

CHAPTER 4 ::: CONDUCTING MARKETING RESEARCH AND FORECASTING DEMAND

In addition to monitoring a changing marketing environment, marketers also need to develop specific knowledge about their particular markets. Good marketers want information to help them interpret past performance as well as plan future activities. Marketers need timely, accurate, and actionable information on consumers, competition, and their brands. They need to make the best possible tactical decisions in the short run and strategic decisions in the long run. Discovering a consumer insight and understanding its marketing implications can often lead to a successful product launch or spur the growth of a brand.

St. Louis-based Build-A-Bear Workshop has cleverly capitalized on the "kiddie-craft" trend in children's toys as well as the trend for interactive entertainment retailing. Instead of making pottery or play jewelry, the chain, with more than 160 stores in the United States, Canada, the United Kingdom, Japan, Denmark, and Korea, allows kids (and adults too) to design their own teddy bears and other stuffed animals, complete with clothing, shoes, and accessories. The chain boasts an average of over $500 per square foot in annual revenue, double the U.S. mall average. Ten percent of sales in 2003 came from hosting nearly 100,000 parties at a cost to customers of approximately $250 for two hours, which includes a stuffed animal for each child. Build-A-Bear has created a database on 9 million kids and their households by inviting customers to register their bears: >>>

A Build-A-Bear Workshop customer leaving the store.

By including a barcode inside the bear, the company can reunite the owner with the bear if it gets lost. The database allows Build-A-Bear to contact customers by surface and e-mail with gift certificates, promotions, and party reminders.[1]

In this chapter, we review the steps involved in the marketing research process. We also consider how marketers can develop effective metrics for measuring marketing productivity. Finally, we outline how marketers can develop good sales forecasts.

The Marketing Research System

Marketing managers often commission formal marketing studies of specific problems and opportunities. They may request a market survey, a product-preference test, a sales forecast by region, or an advertising evaluation. It is the job of the marketing researcher to produce insight into the customer's attitudes and buying behavior. We define **marketing research** as the systematic design, collection, analysis, and reporting of data and findings relevant to a specific marketing situation facing the company. Marketing research is now about a $16.5 billion industry globally, according to ESOMAR, the World Association of Opinion and Market Research Professionals.

A company can obtain marketing research in a number of ways. Most large companies have their own marketing research departments, which often play crucial roles within the organization.[2]

PROCTER & GAMBLE

P&G's large market research function is called Consumer & Market Knowledge (CMK). Its goal is to bring consumer insight to decision making at all levels. Dedicated CMK groups work for P&G businesses around the world, including Global Business Units (GBUs), which focus on long-term brand equity and initiative development, and Market Development Organizations (MDOs), which focus on local market expertise and retail partnerships. There is also a relatively smaller, centralized corporate CMK group which, in partnership with the line businesses, focuses on three kinds of work: (1) proprietary research methods development, (2) expert application of, and cross-business learning from, core research competencies, and (3) shared services and infrastructure. CMK leverages traditional research basics such as brand tracking. CMK also finds, invents, or co-develops leading-edge research approaches such as experiential consumer contacts, proprietary modeling methods, and scenario-planning or knowledge synthesis events. CMK professionals connect market insights from all these sources to shape company strategies and decisions. They influence day-to-day operational choices, such as which product formulations are launched, as well as long-term plans, such as which corporate acquisitions best round out the product portfolio.

Yet, marketing research is not limited to large companies with big budgets and marketing research departments. At much smaller companies, marketing research is often carried out by everyone in the company—and by customers, too.

KARMALOOP.COM

Karmaloop bills itself as an online urban boutique, and it has built its reputation as a top shop for Fashionistas because of its relentless tracking of trendsetters. The five-year-old Boston company has made streetwear fashion a science by keeping tabs on young tastemakers' buying habits. In addition to its crew of 15 moonlighting artists, DJs, and designers, Karmaloop recruits street team members to ferret out new trends and to spread the word about Karmaloop brands. The street teams, which now boast 3,000 reps, pass out fliers and stickers at nightclubs, concerts, and on the street, but also report on what they see at events, in the way of trends.[3]

Companies normally budget marketing research at 1 to 2 percent of company sales. A large percentage of that is spent on the services of outside firms. Marketing research firms fall into three categories:

1. ***Syndicated-service research firms*** – These firms gather consumer and trade information, which they sell for a fee. Examples: Nielsen Media Research, SAMI/Burke.
2. ***Custom marketing research firms*** – These firms are hired to carry out specific projects. They design the study and report the findings.
3. ***Specialty-line marketing research firms*** – These firms provide specialized research services. The best example is the field-service firm, which sells field interviewing services to other firms.

Small companies can hire the services of a marketing research firm or conduct research in creative and affordable ways, such as:

1. ***Engaging students or professors to design and carry out projects*** – One Boston University MBA project helped American Express develop a successful advertising campaign geared toward young professionals. The cost: $15,000.
2. ***Using the Internet*** – A company can collect considerable information at very little cost by examining competitors' Web sites, monitoring chat rooms, and accessing published data.
3. ***Checking out rivals*** – Many small companies routinely visit their competitors. Tom Coohill, a chef who owns two Atlanta restaurants, gives managers a food allowance to dine out and bring back ideas. Atlanta jeweler Frank Maier Jr., who often visits out-of-town rivals, spotted and copied a dramatic way of lighting displays.[4]

Most companies, such as Fuji Photo Film, use a combination of marketing research resources to study their industries, competitors, audiences, and channel strategies:

FUJI PHOTO FILM

At the highest level, Fuji relies on data from market research syndicate NDP Group to study the market for products ranging from digital cameras to ink jet photo paper. Fuji also does custom research with a variety of research partners, and it conducts internal research for projects requiring quick information, such as changes to package design. Regardless of how the marketing research data are collected, it is a top priority for Fuji, which has had to adapt its film and digital imaging products to a rapidly changing marketplace. "If you don't have market research to help you figure out what is changing and what the future will be, you will be left behind," says Fuji's director of category management and trade marketing.[5]

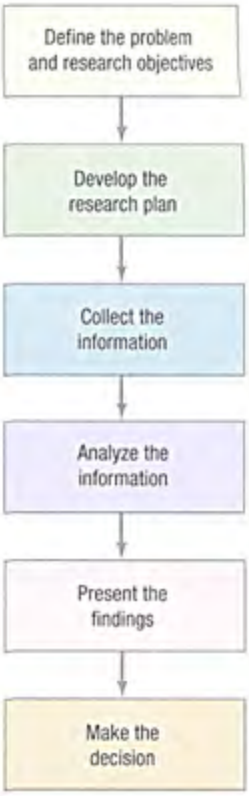

FIG. 4.1

The Marketing Research Process

The Marketing Research Process

Effective marketing research involves the six steps shown in Figure 4.1. We will illustrate these steps with the following situation:

> American Airlines (AA) is constantly looking for new ways to serve its passengers; it was one of the first companies to install phone handsets. Now it is reviewing many new ideas, especially to cater to its first-class passengers on very long flights, many of whom are businesspeople whose high-priced tickets pay most of the freight. Among these ideas are: (1) to supply an Internet connection with limited access to Web pages and e-mail messaging; (2) to offer 24 channels of satellite cable TV; and (3) to offer a 50-CD audio system that lets each passenger create a customized play list of music and movies to enjoy during the flight. The marketing research manager was assigned to investigate how first-class passengers would rate these services and how much extra they would be willing to pay if a charge was made. He was asked to focus specifically on the Internet connection. One estimate says that airlines might realize revenues of $70 billion over the next decade from in-flight Internet access, if enough first-class passengers would be willing to pay $25 for it. AA could thus recover its costs in a reasonable time. Making the connection available would cost the airline $90,000 per plane.[6]

Step 1: Define the Problem, the Decision Alternatives, and the Research Objectives

Marketing management must be careful not to define the problem too broadly or too narrowly for the marketing researcher. A marketing manager who instructs the marketing researcher to "Find out everything you can about first-class air travelers' needs," will collect a lot of unnecessary information. One who says, "Find out if enough passengers aboard a B747 flying direct between Chicago and Tokyo would be willing to pay $25 for an Internet connection so that American Airlines would break even in one year on the cost of offering this service," is taking too narrow a view of the problem. The marketing researcher might even raise this question: "Why does the Internet connection have to be priced at $25 as opposed to $10, $50, or some other price? Why does American have to break even on the cost of the service, especially if it attracts new users to AA?"

In discussing the problem, American's managers discover another issue. If the new service were successful, how fast could other airlines copy it? Airline marketing research is replete with examples of new services that have been so quickly copied by competitors that no airline has gained a sustainable competitive advantage. How important is it to be first, and how long could the lead be sustained?

The marketing manager and marketing researcher agreed to define the problem as follows: "Will offering an in-flight Internet service create enough incremental preference and profit for American Airlines to justify its cost against other possible investments American might make?" To help in designing the research, management should first spell out the decisions it might face and then work backward. Suppose management spells out these decisions: (1) Should American offer an Internet connection? (2) If so, should the service be offered to first-class only, or include business class, and possibly economy class? (3) What price(s) should be charged? (4) On what types of planes and lengths of trips should it be offered?

Now management and marketing researchers are ready to set specific research objectives: (1) What types of first-class passengers would respond most to using an in-flight Internet service? (2) How many first-class passengers are likely to use the Internet service at different price levels? (3) How many extra first-class passengers might choose American because of this new service? (4) How much long-term goodwill will this service add to American Airlines' image? (5) How important is Internet service to first-class passengers relative to providing other services such as a power plug, or enhanced entertainment?

Not all research projects can be this specific. Some research is exploratory—its goal is to shed light on the real nature of the problem and to suggest possible solutions or new ideas. Some research is descriptive—it seeks to ascertain certain magnitudes, such as how many first-class passengers would purchase in-flight Internet service at $25. Some research is causal—its purpose is to test a cause-and-effect relationship.

Step 2: Develop the Research Plan

The second stage of marketing research calls for developing the most efficient plan for gathering the needed information. The marketing manager needs to know the cost of the research plan before approving it. Suppose the company made a prior estimate that launching the in-flight Internet service would yield a long-term profit of $50,000. The manager believes that doing the research would lead to an improved pricing and promotional plan and a long-term profit of $90,000. In this case, the manager should be willing to spend up to $40,000 on this research. If the research would cost more than $40,000, it is not worth doing.[7] Designing a research plan calls for decisions on the data sources, research approaches, research instruments, sampling plan, and contact methods.

DATA SOURCES The researcher can gather secondary data, primary data, or both. *Secondary data* are data that were collected for another purpose and already exist somewhere. *Primary data* are data freshly gathered for a specific purpose or for a specific research project.

Researchers usually start their investigation by examining some of the rich variety of secondary data to see whether the problem can be partly or wholly solved without collecting costly primary data. Secondary data provide a starting point and offer the advantages of low cost and ready availability. When the needed data do not exist or are dated, inaccurate, incomplete, or unreliable, the researcher will have to collect primary data. Most marketing research projects involve some primary-data collection. The normal pro-

cedure is to interview some people individually or in groups, to get a sense of how people feel about the topic in question, and then develop a formal research instrument, debug it, and carry it into the field.

A focus group in session, with marketing people observing through a two-way mirror.

RESEARCH APPROACHES Primary data can be collected in five main ways: through observation, focus groups, surveys, behavioral data, and experiments.

Observational Research Fresh data can be gathered by observing the relevant actors and settings.[8] Consumers can be unobtrusively observed as they shop or as they consume products. Ogilvy & Mather's Discovery Group creates documentary-style videos by sending researchers into consumers' homes with handheld video cameras. Hours of footage are edited to a 30-minute "highlight reel" which the group uses to analyze consumer behavior. Other researchers equip consumers with pagers and instruct them to write down what they are doing whenever prompted, or hold more informal interview sessions at a café or bar. The American Airlines researchers might meander around first-class lounges to hear how travelers talk about the different carriers and their features. They can fly on competitors' planes to observe in-flight service.

Focus Group Research A **focus group** is a gathering of six to ten people who are carefully selected based on certain demographic, psychographic, or other considerations and brought together to discuss at length various topics of interest. Participants are normally paid a small sum for attending. A professional research moderator provides questions and probes based on a discussion guide or agenda prepared by the responsible marketing managers to ensure that the right material gets covered.

Moderators attempt to track down potentially useful insights as they try to discern the real motivations of consumers and why they are saying and doing certain things. The sessions are typically recorded in some fashion, and marketing managers often remain behind two-way mirrors in the next room. In the American Airlines research, the moderator might start with a broad question, such as, "How do you feel about first-class air travel?" Questions then move to how people view the different airlines, different existing services, different proposed services, and specifically, Internet service. Although focus-group research has been shown to be a useful exploratory step, researchers must avoid generalizing the reported feelings of the focus-group participants to the whole market, because the sample size is too small and the sample is not drawn randomly. "Marketing Insight: Conducting Informative Focus Groups" has some practical tips to improve the quality of focus groups.

Survey Research Companies undertake surveys to learn about people's knowledge, beliefs, preferences, and satisfaction, and to measure these magnitudes in the general population. A company such as American Airlines might prepare its own survey instrument to gather the information it needs, or it might add questions to an omnibus survey that carries the questions of several companies, at a much lower cost. It can also put the questions to an ongoing consumer panel run by itself or another company. It may do a mall intercept study by having researchers approach people in a shopping mall and ask them questions.

Behavioral Data Customers leave traces of their purchasing behavior in store scanning data, catalog purchases, and customer databases. Much can be learned by analyzing these data. Customers' actual purchases reflect preferences and often are more reliable than statements they offer to market researchers. People may report preferences for popular brands, and yet the data show them actually buying other brands. For example, grocery

MARKETING INSIGHT | CONDUCTING INFORMATIVE FOCUS GROUPS

Focus groups allow marketers to observe how and why consumers accept or reject concepts, ideas, or any specific notion. The key to using focus groups successfully is to *listen*. It is critical to eliminate biases as much as possible. Although many useful insights can emerge from thoughtfully run focus groups, there can be questions as to their validity, especially in today's marketing environment.

Some researchers believe that consumers have been so bombarded with ads, they unconsciously (or perhaps cynically) parrot back what they have already heard as compared to what they think. There is also always a concern that participants are just trying to maintain their self-image and public persona or have a need to identify with the other members of the group. Participants may not be willing to admit in public—or may not even recognize—their behavior patterns and motivations. There is also always the "loudmouth" problem—when one highly opinionated person drowns out the rest of the group. It may be expensive to recruit qualified subjects ($3,000 to $5,000 per group), but getting the right participants is crucial.

Even when multiple groups are involved, it may be difficult to generalize the results to a broader population. For example, within the United States, focus-group findings often vary from region to region. One firm specializing in focus-group research claimed that the best city to conduct focus groups was Minneapolis because it could get a fairly well-educated sample of people who were honest and forthcoming about their opinions. Many marketers interpret focus groups carefully in New York and other northeastern cities because the people in these areas tend to be highly critical and generally do not report that they like much. Too often, managers become comfortable with a particular focus-group format and apply it generally and automatically to every circumstance. Europeans typically need more time than American marketers are usually willing to give—a focus group there rarely takes less than two hours and often more than four.

Participants must feel as relaxed as possible and feel a strong obligation to "speak the truth." Physical surroundings can be crucial. Researchers at one agency knew they had a problem when a fight broke out between participants at one of their sessions. As one executive noted, "we wondered why people always seemed grumpy and negative—people were resistant to any idea we showed them." The problem was the room itself: cramped, stifling, forbidding: "It was a cross between a hospital room and a police interrogation room." To fix the problem, the agency gave the room a makeover. Other firms are adapting the look of the room to fit the theme of the topic—like designing the room to look like a playroom when speaking to children.

Although many firms are substituting observational research for focus groups, ethnographic research can be expensive and tricky: Researchers have to be highly skilled, participants have to be on the level, and mounds of data have to be analyzed. The beauty of focus groups, as one marketing executive noted, is that "it's still the most cost-effective, quickest, dirtiest way to get information in rapid time on an idea." In analyzing the pros and cons, Wharton's Americus Reed might have said it best: "A focus group is like a chain saw. If you know what you're doing, it's very useful and effective. If you don't, you could lose a limb."

Sources: Sarah Stiansen, "How Focus Groups Can Go Astray," *Adweek*, December 5, 1988, pp. FK 4–6; Jeffrey Kasner, "Fistfights and Feng Shui," *Boston Globe*, July 21, 2001, pp. C1–C2; Leslie Kaufman, "Enough Talk," *Newsweek*, August 18, 1997, pp. 48–49; Linda Tischler, "Every Move You Make," *Fast Company*, April 2004, pp. 73–75; Alison Stein Wellner, "The New Science of Focus Groups," *American Demographics* (March 2003): 29–33; Dennis Rook, "Out-of-Focus Groups," *Marketing Research* 15; no. 2 (Summer 2003): 11; Dennis W. Rook, "Loss of Vision: Focus Groups Fail to Connect Theory, Current Practice," *Marketing News*, September 15, 2003, p. 40.

shopping data show that high-income people do not necessarily buy the more expensive brands, contrary to what they might state in interviews; and many low-income people buy some expensive brands. Clearly, American Airlines can learn many useful things about its passengers by analyzing ticket purchase records.

Experimental Research The most scientifically valid research is experimental research. The purpose of experimental research is to capture cause-and-effect relationships by eliminating competing explanations of the observed findings. To the extent that the design and execution of the experiment eliminate alternative hypotheses that might explain the results, research and marketing managers can have confidence in the conclusions.

Experiments call for selecting matched groups of subjects, subjecting them to different treatments, controlling extraneous variables, and checking whether observed response differences are statistically significant. To the extent that extraneous factors are eliminated or controlled, the observed effects can be related to the variations in the treatments. American Airlines might introduce in-flight Internet service on one of its regular flights from Chicago to Tokyo. It might charge $25 one week and charge only $15 the next week. If the plane carried approximately the same number of first-class passengers each week and the particular weeks made no difference, any significant difference in the number of calls made could be related to the different prices charged. The experimental design could be elaborated by trying other prices and including other air routes.

MARKETING MEMO — QUESTIONNAIRE DOS AND DON'TS

1. ***Ensure that questions are without bias.*** Do not lead the respondent into an answer.
2. ***Make the questions as simple as possible.*** Questions that include multiple ideas or two questions in one will confuse respondents.
3. ***Make the questions specific.*** Sometimes it is advisable to add memory cues. For example, it is good practice to be specific with time periods.
4. ***Avoid jargon or shorthand.*** Avoid trade jargon, acronyms, and initials not in everyday use.
5. ***Steer clear of sophisticated or uncommon words.*** Only use words in common speech.
6. ***Avoid ambiguous words.*** Words such as "usually" or "frequently" have no specific meaning.
7. ***Avoid questions with a negative in them.*** It is better to say "Do you ever . . . ?" than "Do you never . . . ?"
8. ***Avoid hypothetical questions.*** It is difficult to answer questions about imaginary situations. Answers cannot necessarily be trusted.
9. ***Do not use words that could be misheard.*** This is especially important when the interview is administered over the telephone. "What is your opinion of sects?" could yield interesting but not necessarily relevant answers.
10. ***Desensitize questions by using response bands.*** For questions that ask people their age or companies their employee turnover, it is best to offer a range of response bands.
11. ***Ensure that fixed responses do not overlap.*** Categories used in fixed response questions should be sequential and not overlap.
12. ***Allow for "other" in fixed response questions.*** Precoded answers should always allow for a response other than those listed.

Source: Adapted from Paul Hague and Peter Jackson, *Market Research: A Guide to Planning, Methodology, and Evaluation* (London: Kogan Page, 1999). See also, Hans Baumgartner and Jan-Benedict E. M. Steenkamp, "Response Styles in Marketing Research: A Cross-National Investigation," *Journal of Marketing Research* (May 2001): 143–156.

RESEARCH INSTRUMENTS Marketing researchers have a choice of three main research instruments in collecting primary data: questionnaires, qualitative measures, and mechanical devices.

Questionnaires A questionnaire consists of a set of questions presented to respondents. Because of its flexibility, the questionnaire is by far the most common instrument used to collect primary data. Questionnaires need to be carefully developed, tested, and debugged before they are administered on a large scale. In preparing a questionnaire, the researcher carefully chooses the questions and their form, wording, and sequence. The form of the question can influence the response. Marketing researchers distinguish between closed-end and open-end questions. Closed-end questions specify all the possible answers and provide answers that are easier to interpret and tabulate. Open-end questions allow respondents to answer in their own words and often reveal more about how people think. They are especially useful in exploratory research, where the researcher is looking for insight into how people think rather than measuring how many people think a certain way. Table 4.1 provides examples of both types of questions; and see "Marketing Memo: Questionnaire Dos and Don'ts."

Qualitative Measures Some marketers prefer more qualitative methods for gauging consumer opinion because consumer actions do not always match their answers to survey questions. *Qualitative research techniques* are relatively unstructured measurement approaches that permit a range of possible responses, and they are a creative means of ascertaining consumer perceptions that may otherwise be difficult to uncover. The range of possible qualitative research techniques is limited only by the creativity of the marketing researcher. Here are seven techniques employed by design firm IDEO for understanding the customer experience:[9]

- ***Shadowing***—observing people using products, shopping, going to hospitals, taking the train, using their cell phones.
- ***Behavior mapping***—photographing people within a space, such as a hospital waiting room, over two or three days.
- ***Consumer journey***—keeping track of all the interactions a consumer has with a product, service, or space.

TABLE 4.1 Types of Questions

Name	Description	Example
A. Closed-end Questions		
Dichotomous	A question with two possible answers.	In arranging this trip, did you personally phone American? Yes No
Multiple choice	A question with three or more answers.	With whom are you traveling on this flight? ☐ No one ☐ Children only ☐ Spouse ☐ Business associates/friends/relatives ☐ Spouse and children ☐ An organized tour group
Likert scale	A statement with which the respondent shows the amount of agreement/disagreement.	Small airlines generally give better service than large ones. Strongly disagree 1___ Disagree 2___ Neither agree nor disagree 3___ Agree 4___ Strongly agree 5___
Semantic differential	A scale connecting two bipolar words. The respondent selects the point that represents his or her opinion.	American Airlines Large ---------- Small Experienced ---------- Inexperienced Modern ---------- Old-fashioned
Importance scale	A scale that rates the importance of some attribute.	Airline food service to me is Extremely important 1___ Very important 2___ Somewhat important 3___ Not very important 4___ Not at all important 5___
Rating scale	A scale that rates some attribute from "poor" to "excellent."	American food service is Excellent 1___ Very Good 2___ Good 3___ Fair 4___ Poor 5___
Intention-to-buy scale	A scale that describes the respondent's intention to buy.	If an in-flight telephone were available on a long flight, I would Definitely buy 1___ Probably buy 2___ Not sure 3___ Probably not buy 4___ Definitely not buy 5___
B. Open-end Questions		
Completely unstructured	A question that respondents can answer in an almost unlimited number of ways.	What is your opinion of American Airlines?
Word association	Words are presented, one at a time, and respondents mention the first word that comes to mind.	What is the first word that comes to your mind when you hear the following? Airline _____ American _____ Travel _____
Sentence completion	An incomplete sentence is presented and respondents complete the sentence.	When I choose an airline, the most important consideration in my decision is _____.
Story completion	An incomplete story is presented, and respondents are asked to complete it.	"I flew American a few days ago. I noticed that the exterior and interior of the plane had very bright colors. This aroused in me the following thoughts and feelings. . . . " Now complete the story.
Picture	A picture of two characters is presented, with one making a statement. Respondents are asked to identify with the other and fill in the empty balloon.	
Thematic Apperception Test (TAT)	A picture is presented and respondents are asked to make up a story about what they think is happening or may happen in the picture.	

- ***Camera journals***—asking consumers to keep visual diaries of their activities and impressions relating to a product.
- ***Extreme user interviews***—talking to people who really know—or know nothing—about a product or service and evaluating their experience using it.
- ***Storytelling***—prompting people to tell personal stories about their consumer experiences.
- ***Unfocus groups***—interviewing a diverse group of people: To explore ideas about sandals, IDEO gathered an artist, a bodybuilder, a podiatrist, and a shoe fetishist.

Because of the freedom afforded both researchers in their probes and consumers in their responses, qualitative research can often be a useful first step in exploring consumers' brand and product perceptions. There are also drawbacks to qualitative research. The in-depth insights that emerge have to be tempered by the fact that the samples involved are often very small and may not necessarily generalize to broader populations. Moreover, given the qualitative nature of the data, there may also be questions of interpretation. Different researchers examining the same results from a qualitative research study may draw very different conclusions. "Marketing Insight: Getting into Consumers' Heads with Qualitative Research" describes some popular approaches.

MARKETING INSIGHT

GETTING INTO CONSUMERS' HEADS WITH QUALITATIVE RESEARCH

Here are some commonly used qualitative research approaches to getting inside consumers' minds and finding out what they are thinking or feeling about brands and products:

1. ***Word associations.*** People can be asked what words come to mind when they hear the brand's name. "What does the Timex name mean to you? Tell me what comes to mind when you think of Timex watches." The primary purpose of free association tasks is to identify the range of possible brand associations in consumers' minds. But they may also provide some rough indication of the relative strength, favorability, and uniqueness of brand associations too.
2. ***Projective techniques.*** People are presented an incomplete stimulus and asked to complete it or given an ambiguous stimulus that may not make sense in and of itself and are asked to make sense of it. The argument is that people will reveal their true beliefs and feelings. One such approach is "bubble exercises" based on cartoons or photos. Different people are depicted buying or using certain products or services. Empty bubbles, like those found in cartoons, are placed in the scenes to represent the thoughts, words, or actions of one or more of the participants. People are then asked to "fill in the bubble" by indicating what they believed was happening or being said. Another technique is comparison tasks. People are asked to convey their impressions by comparing brands to people, countries, animals, activities, fabrics, occupations, cars, magazines, vegetables, nationalities, or even other brands.
3. ***Visualization.*** People can be asked to create a collage from magazine photos or drawings to depict their perceptions. ZMET is a research technique that starts with a group of participants, who are asked in advance to select a minimum of 12 images from their own sources (e.g., magazines, catalogs, and family photo albums) that represent their thoughts and feelings about the research topic. The participants bring these images to a personal one-on-one interview with a study administrator, who uses advanced interview techniques to explore the images with the participant and reveal hidden meanings. Finally, the participants use a computer program to create a collage with these images that communicates their subconscious thoughts and feelings about the topic. One ZMET study probed what women thought of panty hose. Twenty hose-wearing women were asked to collect pictures that captured their feelings about wearing panty hose. Some of the pictures showed fence posts encased in plastic wrap or steel bands strangling trees, suggesting that panty hose are tight and inconvenient. Another picture showed tall flowers in a vase, suggesting that the product made a woman feel thin, tall, and sexy.
4. ***Brand personification.*** People can be asked to describe what kind of person they think of when the brand is mentioned: "If the brand were to come alive as a person, what would it be like, what would it do, where would it live, what would it wear, who would it talk to if it went to a party (and what would it talk about)?" For example, they may say that the John Deere brand makes them think of a rugged Midwestern male who is hard-working and trustworthy. The brand personality delivers a picture of the more human qualities of the brand.
5. ***Laddering.*** A series of increasingly more specific "why" questions can be used to gain insight into consumer motivation and consumers' deeper, more abstract goals. Ask why someone wants to buy a Nokia cellular phone. "They look well built" (attribute). "Why is it important that the phone be well built?" "It suggests that the Nokia is reliable" (a functional benefit). "Why is reliability important?" "Because my colleagues or family can be sure to reach me" (an emotional benefit). "Why must you be available to them at all times?" "I can help them if they are in trouble" (brand essence). The brand makes this person feel like a Good Samaritan, ready to help others.

Sources: Allen Adamson, "Why Traditional Brand Positioning Can't Last," *Brandweek*, November 17, 2003, pp. 38–40; Todd Wasserman, "Sharpening the Focus," *Brandweek*, November 3, 2003, pp. 28–32; Linda Tischler, "Every Move You Make," *Fast Company*, April 2004, pp. 73–75; Gerald Zaltman, *How Customers Think: Essential Insights into the Mind of the Market* (Boston: Harvard Business School Press, 2003).

Mechanical Devices Mechanical devices are occasionally used in marketing research. For example, galvanometers can measure the interest or emotions aroused by exposure to a specific ad or picture. The tachistoscope flashes an ad to a subject with an exposure interval that may range from less than one hundredth of a second to several seconds. After each exposure, the respondent describes everything he or she recalls. Eye cameras study respondents' eye movements to see where their eyes land first, how long they linger on a given item, and so on. As one would expect, in recent years technology has advanced to such a degree that now devices like skin sensors, brain wave scanners, and full body scanners are being used to get consumer responses.[10]

Technology has replaced the diaries that participants in media surveys used to have to keep. Audiometers can be attached to television sets in participating homes to record when the set is on and to which channel it is tuned. Electronic devices can record the number of radio programs a person is exposed to during the day or, using Global Positioning System (GPS) technology, how many billboards a person may walk by or drive by during a day.

SAMPLING PLAN After deciding on the research approach and instruments, the marketing researcher must design a sampling plan. This calls for three decisions:

1. ***Sampling unit: Who is to be surveyed?*** The marketing researcher must define the target population that will be sampled. In the American Airlines survey, should the sampling unit be only first-class business travelers, first-class vacation travelers, or both? Should travelers under age 18 be interviewed? Should both husbands and wives be interviewed? Once the sampling unit is determined, a sampling frame must be developed so that everyone in the target population has an equal or known chance of being sampled.
2. ***Sample size: How many people should be surveyed?*** Large samples give more reliable results than small samples. However, it is not necessary to sample the entire target population or even a substantial portion to achieve reliable results. Samples of less than 1 percent of a population can often provide good reliability, with a credible sampling procedure.
3. ***Sampling procedure: How should the respondents be chosen?*** To obtain a representative sample, a probability sample of the population should be drawn. Probability sampling allows the calculation of confidence limits for sampling error. Thus, one could conclude after the sample is taken that "the interval 5 to 7 trips per year has 95 chances in 100 of containing the true number of trips taken annually by first-class passengers flying between Chicago and Tokyo." Three types of probability sampling are described in Table 4.2 part A. When the cost or time involved in probability sampling is too high, marketing researchers will take nonprobability samples. Table 4.2 part B describes three types. Some marketing researchers feel that nonprobability

TABLE 4.2

Probability and Nonprobability Samples

A. Probability Sample	
Simple random sample	Every member of the population has an equal chance of selection.
Stratified random sample	The population is divided into mutually exclusive groups (such as age groups), and random samples are drawn from each group.
Cluster (area) sample	The population is divided into mutually exclusive groups (such as city blocks), and the researcher draws a sample of the groups to interview.
B. Nonprobability Sample	
Convenience sample	The researcher selects the most accessible population members.
Judgment sample	The researcher selects population members who are good prospects for accurate information.
Quota sample	The researcher finds and interviews a prescribed number of people in each of several categories.

samples are very useful in many circumstances, even though they do not allow sampling error to be measured.

CONTACT METHODS Once the sampling plan has been determined, the marketing researcher must decide how the subject should be contacted: mail, telephone, personal, or online interview.

Mail Questionnaire The *mail questionnaire* is the best way to reach people who would not give personal interviews or whose responses might be biased or distorted by the interviewers. Mail questionnaires require simple and clearly worded questions. Unfortunately, the response rate is usually low or slow.

Telephone Interview *Telephone interviewing* is the best method for gathering information quickly; the interviewer is also able to clarify questions if respondents do not understand them. The response rate is typically higher than in the case of mailed questionnaires. The main drawback is that the interviews have to be short and not too personal. Telephone interviewing is getting more difficult because of consumers' growing antipathy toward telemarketers calling them in their homes and interrupting their lives. In late 2003, Congress passed legislation allowing the Federal Trade Commission to restrict telemarketing calls to consumers through its "Do Not Call" registry. Even though marketing research firms are exempt, many think that the legislation spells the beginning of the end of telephone surveys as a marketing research method.

Personal Interview *Personal interviewing* is the most versatile method. The interviewer can ask more questions and record additional observations about the respondent, such as dress and body language. At the same time, personal interviewing is the most expensive method and requires more administrative planning and supervision than the other three. It is also subject to interviewer bias or distortion. Personal interviewing takes two forms. In *arranged interviews*, respondents are contacted for an appointment, and often a small payment or incentive is offered. *Intercept interviews* involve stopping people at a shopping mall or busy street corner and requesting an interview. Intercept interviews can have the drawback of being nonprobability samples, and the interviews must not require too much time.

An intercept interview at a mall.

Online Interview There is increased use of online methods. Online research was up 20 to 30 percent in 2003 and was expected to continue along the same growth trajectory in 2004. Furthermore, online research is estimated to make up 25 percent of all survey-based research in 2004.[11]

There are so many ways to use the Net to do research. A company can include a questionnaire on its Web site and offer an incentive to answer the questionnaire; or it can place a banner on some frequently visited site such as Yahoo!, inviting people to answer some questions and possibly win a prize. The company can sponsor a chat room or bulletin board and introduce questions from time to time, or host a real-time panel or virtual focus group. A company can learn about individuals who visit its site by following how they *clickstream* through the Web site and move to other sites. A company can post different prices, use different headlines, offer different product features on different Web sites or at different times to learn the relative effectiveness of its offerings.

Online product testing, in which companies float trial balloons for new products, is also growing and providing information much faster than traditional marketing research techniques used to develop new products. For instance, marketers for Mattel's Hot Wheels toys rely heavily on the Web to interact with collectors to help develop new products, promotions, and licensed goods.

Following one fan survey, marketing executives learned that they could expand licensed offerings to boys ages 11 to 16 to keep them in the brand franchise, resulting in extended partnerships with Bell Motorcycles and BMX bikes.[12]

HERSHEY'S FOOD CORP.

Candymaker Hershey was an early innovator in the area of online product testing. In 1999 through 2000, the company moved its new product testing online along with its entire historical product testing. It combined more than 1,200 historical concept tests with about 300 to 400 online test results to create an online "turnkey" system that works both as a reporting tool and as an archival system. The move to online product testing has cut Hershey's new product development process by two-thirds—a strategic advantage in a mature market—and keeps a wealth of institutional data on hand even as research personnel change over the years.[13]

While marketers are right to be infatuated with the possibilities of online research, it's important to remember that the field is still in its infancy and is constantly evolving to meet the needs of companies, advertising agencies, and consumers. "Marketing Memo: Pros and Cons of Online Research" outlines some of the advantages and disadvantages of online research thus far.

Step 3: Collect the Information

The data collection phase of marketing research is generally the most expensive and the most prone to error. In the case of surveys, four major problems arise. Some respondents will not be at home and must be contacted again or replaced. Other respondents will refuse to cooperate. Still others will give biased or dishonest answers. Finally, some interviewers will be biased or dishonest. Getting the right respondents is critical.

MEDIAMARK RESEARCH

Mediamark Research interviews 26,000 Americans in their homes on the kinds of media they use, the brands and products they use, and their attitudes toward topics such as sports and politics. Up until 2002, however, the company had tended to exclude non-English-speaking Hispanics from the research. As the Hispanic population increased in numbers and buying power, the company recognized that it could no longer afford this limiting and potentially biased approach. Mediamark recruited a bilingual traveling task force so that when interviewers come to a Hispanic household, respondents can answer the survey in English or Spanish. They also are creating a more seamless interviewing database by asking the same questions to all people no matter what language they speak and what level of acculturation they have.[14]

Data collection methods are rapidly improving thanks to computers and telecommunications. Some research firms interview from a centralized location. Professional interviewers sit in booths and draw telephone numbers at random. When the phone is answered, the interviewer reads a set of questions from a monitor and types the respondents' answers into a computer. This procedure eliminates editing and coding, reduces errors, saves time, and produces all the required statistics. Other research firms have set up interactive terminals in shopping centers. Persons willing to be interviewed sit at a terminal, read the questions from the monitor, and type in their answers.

One savvy marketer gets primary data via online surveys from a highly coveted demographic as they play games.

NEOPETS.COM

With more than 22 million members and 27,000 new ones joining every day, Neopets is one of the most popular children's Web sites. The Web site is free, and it allows users to create, nurture, and care for cyberpets as they earn "neopoints." They raise their neopet in a virtual neighborhood that includes eating at

MARKETING MEMO | PROS AND CONS OF ONLINE RESEARCH

Advantages

- ***Online research is inexpensive.*** The cost of gathering survey information electronically is much less expensive than by traditional means. A typical e-mail survey costs about half what a conventional survey costs, and return rates can be as high as 50 percent. For instance, Virgin.net used online research to launch its broadband service in the United Kingdom in 2002. Now the company does all its research online. The brand has seen an increase in response rates from 17 percent with paper-based research to almost 72 percent and costs have dropped 90 percent.
- ***Online research is faster.*** Online surveys are faster to complete since the survey can automatically direct respondents to applicable questions and be sent electronically to the research supplier once finished. One estimate is that 75 to 80 percent of a survey's targeted response can be generated in 48 hours using online methods, as compared to a telephone survey that can take 70 days to obtain 150 interviews.
- ***People tend to be more honest online than they are in personal or telephone interviews.*** Britain's online polling company YouGov.com took 500 people and surveyed half via intercom in a booth and the other half online, asking them politically correct questions such as "Should there be more aid to Africa?" Online answers were deemed much more honest. People may be more open about their opinions when they can respond to a survey privately and not to another person whom they feel might be judging them, especially on sensitive topics.
- ***Online research is more versatile.*** The multimedia applications of online research are especially advantageous. For instance, virtual reality software lets visitors inspect 3-D models of products such as cameras, cars, and medical equipment, and product characteristics can be easily manipulated online. Even at the most basic level, online surveys make answering a questionnaire easier and more fun than paper-and-pencil versions.

Disadvantages

- ***Samples can be small and skewed.*** Perhaps the largest criticism leveled against online research is that not everyone is online. Research subjects who respond to online surveys are more likely to be tech-savvy middle-class males. Some 40 percent of households are without Internet access in the United States—and there is an even higher percentage without access when you reach out to international markets. These people are likely to differ in socioeconomic and education levels from those online. While marketers can be certain that more and more people will go online, it is important for online market researchers to find creative ways to reach certain population segments that are less likely to be online, such as older Americans or Hispanics. One option is to combine offline sources with online findings. Providing temporary Internet access at locations such as malls and recreation centers is another strategy. Some research firms use statistical models to fill in the gaps in market research left by offline consumer segments.
- ***Online market research is prone to technological problems and inconsistencies.*** Because online research is a relatively new method, many market researchers have not gotten survey designs right. A common error occurs in transferring a written survey to the screen. Others overuse technology, concentrating on the bells and whistles and graphics, while ignoring basic survey design guidelines. Problems also arise because browser software varies. The Web designer's final product may be seen very differently depending upon the research subject's screen and operating system.

Sources: Catherine Arnold, "Not Done Net; New Opportunities Still Exist in Online Research," *Marketing News*, April 1, 2004, p. 17; Nima M. Ray and Sharon W. Tabor, "Contributing Factors; Several Issues Affect e-Research Validity," *Marketing News*, September 15, 2003, p. 50; Louella Miles, "Online, On Tap," *Marketing*, June 16, 2004, pp. 39–40; Joe Dysart, "Cutting Market Research Costs with On-Site Surveys," *The Secured Lender* (March/April 2004): 64–67; Suzy Bashford, "The Opinion Formers," *Revolution*, May 2004, pp. 42–46; Bob Lamons, "Eureka! Future of B-to-B Research is Online," *Marketing News*, September 24, 2001, pp. 9–10.

McDonald's, watching Disney movie clips, feeding pets General Mills cereal, or playing Reese's Puffs Mini Golf with them. In this unique form of interactive product placement, advertisers pay to become part of the branded Neopet environment. In return, they get increased exposure to their products or services and data on their target market's consumer behavior. "We live and breathe market research," says Rik Kinney, executive vice president of the Glendale, California, company. The primary research mechanism at Neopets is a link to an online survey, prominently displayed on the homepage. Members are rewarded with Neopoints for answering questions about their shopping habits, and users complete 6,000 to 8,000 surveys a day. Interestingly, despite building a profitable business around selling information on its loyal users, Neopets has won kudos from privacy advocates because the company only releases data about its user base as a whole or about certain segments, but does not reveal any facts on individual users.[15]

MARKETING INSIGHT | GLOBAL ONLINE MARKET RESEARCH CHALLENGES

When chipmaker Intel Research wanted to know how people in countries around the world use technology, it sent an anthropologist to find out. Dr. Genevieve Bell visited 100 households in 19 cities in 7 countries in Asia and the Pacific. She came back to Intel with 20 gigabytes of digital photos, 19 field notebooks, and insights about technology, culture, and design that would challenge company assumptions about digital technology.

It stands to reason that Intel—a global tech powerhouse—would want to know how technology is used in its international markets. Yet all companies have a stake in knowing how the rest of the world sees and uses what most Westerners take for granted: Internet technology. With online research becoming the fastest-growing market research tool, marketers with global ambitions need to know which countries are online and why, or why not.

Internet penetration is low in most parts of Asia, Latin America, and Central and Eastern Europe. In Brazil, for example, only 7 percent of the population is online. While most people assume that the low penetration is due to economies that don't support an expensive technological infrastructure, there are other factors involved. There's climate, for one. In Malaysia, power surges caused by monsoons can fry computer motherboards. Government is also a powerful spur or barrier to Internet penetration. While the Chinese economy is zooming ahead, it's unlikely the authoritarian Chinese government will feel comfortable with market researchers gathering information from its citizens via the Internet. Contrast this with South Korea, where the government has made widespread broadband Internet access a priority, and has provided incentives to PC makers to bring cheaper models to market.

Other significant factors that can keep computers and Wi-Fi and data ports from crossing the threshold are religion and culture. Dr. Bell found that values of humility and simplicity are deemed incompatible with Internet technology and make it less welcome in some Hindu homes in India or Muslim homes in Malaysia and Indonesia. She also noted that while Americans have private space in the home for leisure activities, Japan's tighter quarters afford little privacy. This may explain the huge popularity of text messaging on mobile phones among Japan's young people.

Dr. Bell's findings on global responses to technology point up one of the biggest obstacles to conducting international research, whether online or not: a lack of consistency. Nan Martin, global accounts director for Synovate Inc., a market research firm with offices in 46 countries, says: "In global research, we have to adapt culturally to how, where and with whom we are doing the research . . . A simple research study conducted globally becomes much more complicated as a result of the cultural nuances, and it's necessary for us to be sensitive to those nuances in data collection and interpretation." For instance, suppose Internet penetration is equal. In Latin America, where consumers are uncomfortable with the impersonal nature of the Internet, researchers might need to incorporate interactive elements into a survey so participants feel they are talking to a real person. In Asia, focus groups are challenging because of the cultural tendency to conform. Online surveys may bring more honest responses and keep respondents from "losing face."

And what if a researcher collects data face-to-face in Mexico, but by Internet in the United States? Nan Martin says that, "not only are the subjects answering the question differently because of cultural difference, but the data are being collected by a different method. That can shake the underpinnings of how research scientists feel about collecting data: that every time you change a variable, you're making interpretation of the results more challenging. It is so challenging, in fact, that some say this is an area where global marketers are best served by hiring an expert—an outside research firm with an expertise in acquiring and analyzing international data."

Sources: Arundhati Parmar, "Stumbling Blocks; Net Research Is Not Quite Global," *Marketing News*, March 3, 2003, p. 51; Catherine Arnold, "Global Perspective; Synovate Exec Discusses Future of International Research," *Marketing News*, May 15, 2004, p. 43; Michael Erard, "For Technology, No Small World After All," *New York Times*, May 6, 2004, p. G5; Deborah L. Vence, "Global Consistency: Leave It to the Experts," *Marketing News*, April 28, 2003, p. 37.

It is important to recognize that not everyone in the sample population will be online. (See "Marketing Insight: Global Online Market Research Challenges.")

Step 4: Analyze the Information

The next-to-last step in the process is to extract findings from the collected data. The researcher tabulates the data and develops frequency distributions. Averages and measures of dispersion are computed for the major variables. The researcher will also apply some advanced statistical techniques and decision models in the hope of discovering additional findings.

Step 5: Present the Findings

As the last step, the researcher presents the findings. The researcher should present findings that are relevant to the major marketing decisions facing management. The main survey findings for the American Airlines case show that:

1. The chief reasons for using in-flight Internet service are to pass the time surfing, and to send and receive messages from colleagues and family. The charge would be put on passengers' charge accounts and paid by their companies.

2. About 5 first-class passengers out of every 10 would use the Internet service during a flight at $25; about 6 would use it at $15. Thus, a charge of $15 would produce less revenue ($90 = 6 × $15) than $25 ($125 = 5 × $25). By charging $25, AA would collect $125 per flight. Assuming that the same flight takes place 365 days a year, AA would annually collect $45,625 (= $125 × 365). Since the investment is $90,000, it will take approximately two years before American Airlines breaks even.
3. Offering in-flight service would strengthen the public's image of American Airlines as an innovative and progressive airline. American would gain some new passengers and customer goodwill.

Step 6: Make the Decision

The managers who commissioned the research need to weigh the evidence. If their confidence in the findings is low, they may decide against introducing the in-flight Internet service. If they are predisposed to launching the service, the findings support their inclination. They may even decide to study the issues further and do more research. The decision is theirs, but hopefully the research provided them with insight into the problem. (See Table 4.3.)[16]

A growing number of organizations are using a marketing decision support system to help their marketing managers make better decisions. MIT's John Little defines a **marketing decision support system (MDSS)** as a coordinated collection of data, systems, tools, and techniques with supporting software and hardware by which an organization gathers and interprets relevant information from business and environment and turns it into a basis for marketing action.[17]

A classic MDSS example is the CALLPLAN model which helps salespeople determine the number of calls to make per period to each prospect and current client. The model takes into account travel time as well as selling time. When launched, the model was tested at United Airlines with an experimental group that managed to increase its sales over a matched control group by 8 percentage points.[18] Once a year, *Marketing News* lists hundreds of current marketing and sales software programs that assist in designing marketing research studies, segmenting markets, setting prices and advertising budgets, analyzing media, and planning sales force activity.

TABLE 4.3

The Seven Characteristics of Good Marketing Research

1. Scientific method.	Effective marketing research uses the principles of the scientific method: careful observation, formulation of hypotheses, prediction, and testing.
2. Research creativity.	At its best, marketing research develops innovative ways to solve a problem: a clothing company catering to teenagers gave several young men video cameras, then used the videos for focus groups held in restaurants and other places teens frequent.
3. Multiple methods.	Marketing researchers shy away from overreliance on any one method. They also recognize the value of using two or three methods to increase confidence in the results.
4. Interdependence of models and data.	Marketing researchers recognize that data are interpreted from underlying models that guide the type of information sought.
5. Value and cost of information.	Marketing researchers show concern for estimating the value of information against its cost. Costs are typically easy to determine, but the value of research is harder to quantify. It depends on the reliability and validity of the findings and management's willingness to accept and act on those findings.
6. Healthy skepticism.	Marketing researchers show a healthy skepticism toward glib assumptions made by managers about how a market works. They are alert to the problems caused by "marketing myths."
7. Ethical marketing.	Marketing research benefits both the sponsoring company and its customers. The misuse of marketing research can harm or annoy consumers, increasing resentment at what consumers regard as an invasion of their privacy or a disguised sales pitch.