TABLE 3.1	Improving Marketing Intelligence		
Action		Example	
Train and motivate the sales force to spot and report new developments.		Have sales representatives observe how customers use products in innovative ways, which can lead to new product ideas.	
Motivate distributors, retailers, and other intermediaries to pass along important intelligence.		Intermediaries are closer to the customer and can offer helpful insights, such as observing that certain consumers switch to different products during specific seasons.	
Hire external experts to collect intelligence.		Use mystery shoppers to uncover problems with quality, services, and facilities.	
Network internally and externally.		Buy competitors' products, attend open houses and trade shows, read competitors' published reports, and collect competitors' ads.	
Set up a customer advisory panel.		Invite the company's largest, most outspoken, most sophisticated, or most representative customers to provide feedback.	
Take advantage of government data.		Check U.S. Census Bureau data to learn about population swings, demographic groups, regional migrations, and changing family structure.	
Buy information from outside research firms and vendors.		Obtain data from well-known suppliers such as Nielsen and NPD.	
Collect marketing intelligence on the Internet.		Check online forums, distributor feedback sites, customer complaint sites, blogs, and social media for comments and opinions about competing goods and services.	

the marketing manager's decision making. *Marketing insights* provide diagnostic information about how and why we observe certain effects in the marketplace and what that means to marketers.³

Gaining marketing insights is crucial for marketing success. To improve the marketing of its \$3 billion Pantene hair care brand, Procter & Gamble researched women's feelings about hair, using surveys with mood scales from psychology, high-resolution EEG research to measure brain waves, and other methods. As a result, the company reformulated Pantene products, redesigned packages, pared the line down, and fine-tuned the ad campaign.⁴

Defining Marketing Research

The American Marketing Association defines **marketing research** as "the function that links the consumer, customer, and public to the marketer through information—information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process. Marketing research specifies the information required to address these issues, designs the method for collecting information, manages and implements the data collection process, analyzes the results, and communicates the findings and their implications."⁵

Most companies use multiple resources to study their industries, competitors, audiences, and channel strategies. They normally budget marketing research at 1 percent to 2 percent of company sales and spend much of that on outside firms. Marketing research firms fall into three categories. Syndicated-service research firms such as Nielsen gather consumer and trade information, which they sell for a fee. Custom marketing research firms design studies, implement them, and report the findings. Specialty-line marketing research firms provide specific services such as field interviewing.

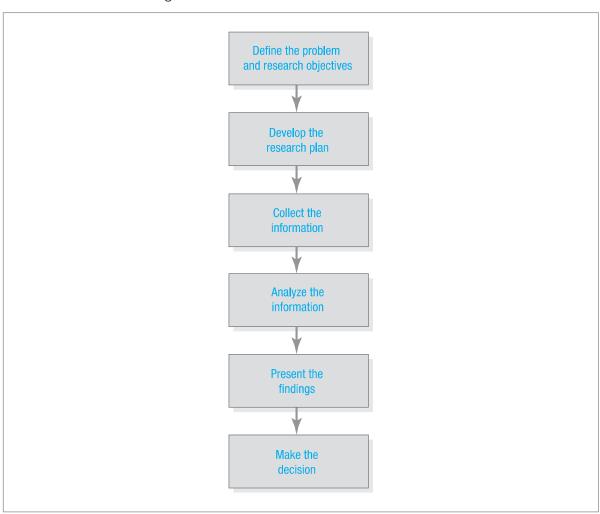
The Marketing Research Process

To take advantage of all the resources and practices available, good marketers adopt a formal marketing research process that follows the six steps shown in Figure 3.1. We illustrate these steps in the following situation. Assume that American Airlines is reviewing new ideas for serving first-class passengers on very long flights, mainly businesspeople whose high-priced tickets pay most of the freight. Among these ideas are: (1) ultra high-speed Wi-Fi service, (2) 124 channels of high-definition satellite cable TV, and (3) a 250-CD audio system that lets each passenger create a customized in-flight playlist. The marketing research manager will investigate how first-class passengers would rate these services, specifically ultra high-speed Wi-Fi, and how much extra they would be willing to pay.

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

Marketing managers must not define the problem too broadly or too narrowly for the marketing researcher. In this case, the researcher and the marketing manager are defining the problem as follows: "Will offering ultra high-speed Wi-Fi service create enough incremental preference and

FIGURE 3.1 The Marketing Research Process



profit to justify its cost against other service enhancements American might make?" They specify five research objectives: (1) What types of first-class passengers would respond most to ultra high-speed Wi-Fi service? (2) How many are likely to use it at different price levels? (3) How many might choose American because of this new service? (4) How much long-term goodwill will this service add to American's image? (5) How important is ultra high-speed Wi-Fi service to first-class passengers relative to other services, such as a power plug?

Not all research can be this specific. Some is *exploratory*—its goal is to identify the problem and to suggest possible solutions. Some is *descriptive*—it seeks to quantify demand, such as how many first-class passengers would purchase ultra high-speed Wi-Fi service at \$25. Some research is *causal*—its purpose is to test a cause-and-effect relationship.

Step 2: Develop the Research Plan

To design a research plan, marketing managers need to make decisions about 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 project. Researchers usually start by examining secondary data. If the needed data don't exist or are dated, inaccurate, incomplete, or unreliable, the researcher will need to collect primary data.

Research Approaches Marketers collect primary data in five main ways: through observation, focus groups, surveys, behavioral data, and experiments.

- **Observational research.** Researchers can gather fresh data by observing unobtrusively as customers shop or consume products or by holding informal interview sessions at a café or bar. Ethnographic research uses concepts and tools from anthropology and other social science disciplines to provide deep cultural understanding of how people live and work. The American Airlines researchers might meander around first-class lounges to hear how travelers talk about different carriers or sit next to passengers on planes.
- **Focus group research.** A **focus group** is a gathering of 6 to 10 people selected for demographic, psychographic, or other considerations and convened to discuss various topics at length, with a professional moderator, for a small payment. 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 different airlines, existing services, proposed services, and, specifically, ultra high-speed Wi-Fi service.
- **Survey research.** Companies undertake surveys to assess people's knowledge, beliefs, preferences, and satisfaction and to measure these magnitudes in the general population. Cash register receipts from Walmart, Petco, and Staples include an invitation to fill out a survey with a chance to win a prize. American Airlines might prepare its own survey questions, or it might add questions to an omnibus survey that carries the questions of several companies at a much lower cost. It can also pose questions to an ongoing consumer panel, have researchers survey people in a shopping mall, or add a survey request at the end of customer service calls.
- **Behavioral data.** Customers leave traces of their purchasing behavior in store scanning data, catalog purchases, and customer databases. Actual purchases reflect consumers' preferences and often are more reliable than statements they offer to market researchers. American Airlines can analyze ticket purchase records and online behavior.

• Experimental research. The most scientifically valid research is experimental research, designed to capture cause-and-effect relationships by eliminating competing explanations of the findings. American Airlines might introduce ultra high-speed Wi-Fi service on one of its international flights, charging \$25 one week and \$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, the airline could relate any significant difference in the number of passengers using the service to the price charged.

Research Instruments Marketing researchers use three main research instruments in collecting primary data: questionnaires, qualitative measures, and technological devices. A *questionnaire* consists of a set of questions presented to respondents. Because of its flexibility, it is by far the most common instrument used to collect primary data. The form, wording, and sequence of the questions can all influence the responses, so testing and de-bugging are necessary. *Closed-end questions* specify all the possible answers, and the responses are easier to interpret and tabulate. *Open-end questions* allow respondents to answer in their own words. They are especially useful in exploratory research, where the researcher is looking for insight into how people think.

Some marketers prefer qualitative methods for gauging consumer opinion because they feel consumers' actions don't always match their answers to survey questions. *Qualitative research techniques* are relatively indirect and unstructured measurement approaches, limited only by the marketing researcher's creativity, that permit a range of responses. They can be an especially useful first step in exploring consumers' perceptions because respondents may be less guarded and reveal more about themselves in the process.

Technological devices are also used for marketing research. 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 a fraction of a second to several seconds. After each exposure, respondents describe everything they recall. Researchers have also benefited from advances in visual technology techniques studying a consumer's eyes and face. Technology now lets marketers use skin sensors, brain wave scanners, and full-body scanners to get consumer responses. For example, biometric-tracking wrist sensors can measure electrodermal activity, or skin conductance, to note changes in sweat levels, body temperature, and so on.

Sampling Plan After choosing the research approach and instruments, the marketing researcher must design a sampling plan. This calls for three decisions:

- 1. Sampling unit: Whom should we survey? In the American Airlines survey, should the sampling unit consist of first-class business travelers, first-class vacation travelers, or both? Should it include travelers under age 18? With the sampling unit chosen, marketers must next develop a sampling frame so everyone in the target population has an equal or known chance of being sampled.
- **2.** Sample size: How many people should we survey? Large samples give more reliable results, but it's not necessary to sample the entire target population 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 we choose the respondents? Probability sampling allows marketers to calculate confidence limits for sampling error and makes the sample more representative.

Contact Methods Now the marketing researcher must decide how to contact the subjects: by mail, by telephone, in person, or online. The advantages and disadvantages of each method are shown in Table 3.2.

TABLE 3.2	Marketing Research Contact Methods		
Contact Metho	d Advantages	Disadvantages	
By mail	Good for reaching people who would not give personal interviews or whose responses might be biased or distorted by the interviewer.	Response rate is usually low or slow.	
By telephone	Good for gathering information quickly and clarifying questions if respondents do not understand. Response rate is typically higher than for mailed questionnaires.	Interviews must be brief, not too personal. Telephone contact getting more difficult because of consumers' growing antipathy toward telemarketers.	
In person	Most versatile because researcher can ask more questions and record additional observations about respondents, such as dress and body language.	Most expensive method, subject to interviewer bias, and requires more planning and supervision.	
Online	Inexpensive, fast, versatile. Responses tend to be honest and thoughtful. Firms can post questionnaires online, host a consumer panel or virtual focus group, sponsor a chat room or blog, analyze clickstream data, use text messaging.	Samples can be skewed and small. Online research can suffer from technological problems and inconsistencies. Online panels can suffer from excessive turnover.	

Step 3: Collect the Data

The data collection phase of marketing research is generally the most expensive and error-prone. Some respondents will be away from home, offline, or otherwise inaccessible; they must be contacted again or replaced. Others will refuse to cooperate or will give biased or dishonest answers.

Step 4: Analyze the Information

The next step in the process is to extract findings by tabulating the data and developing summary measures. The researchers now compute averages and measures of dispersion for the major variables and apply some advanced statistical techniques and decision models to try to discover additional findings. They may test different hypotheses and theories, applying sensitivity analysis to test assumptions and the strength of the conclusions.

Step 5: Present the Findings

Now the researcher presents the findings. Researchers are increasingly asked to play a proactive, consulting role in translating data and information into insights and recommendations. They're also considering ways to make the findings understandable and compelling. In the American Airlines situation, management learns that about 5 of 10 first-class passengers would use Wi-Fi service during a flight if priced at \$25; at \$15, about 6 would. Thus, a fee of \$15 would produce less revenue ($$90 = 6 \times 15) than \$25 ($$125 = 5 \times 25). Assuming the same flight takes place 365 days a year, American could collect \$45,625 (= $$125 \times 365$) annually. Given an investment of \$90,000 per plane, it would take two years for each to break even. Offering ultra high-speed Wi-Fi service would also strengthen American Airlines' image as an innovative carrier and earn it some new passengers and customer goodwill.

Step 6: Make the Decision

The American Airlines managers who commissioned the research need to weigh the evidence. If they have little confidence in the findings, they may decide against introducing the new Wi-Fi service. If they are predisposed to launching it, the findings support their inclination. They may even decide to study the issue further. The decision is theirs, but the research has provided them with insight into the problem.