

## CHAPTER 5

### Conducting Marketing Research



Firms across the globe use Qualtrics' cloud-based marketing research software to manage key aspects of their business that include attracting and retaining customers, creating a company culture, and building strong brands.

Source: Kristoffer Tripplaar/Alamy Stock Photo

**Learning Objectives** After studying this chapter you should be able to:

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5.1 Define the scope of marketing research.

5.2 Explain the marketing research process, how to gather and analyze market data, and how to develop a research plan.

5.3 Explain how to measure and forecast market demand.

5.4 Define the different approaches to measuring marketing productivity.

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Qualtrics is the leader in online marketing research software, offering an online platform that companies use to collect, manage, and act on experience data. The company was founded in a basement in 2002 with the goal of helping businesses measure customer and client satisfaction. Realizing the value of partnering with academic institutions that play a key role in building the skillset of the next wave of business managers, Qualtrics established close relationships with many universities, and by 2010 it partnered with over 1,000 universities and 95 of the top 100 business schools. By 2012, Qualtrics customers were sending more than a billion surveys, and a year later it was named to Forbes's list of "America's Most Promising Companies." Today, Qualtrics offerings are used by teams, departments, and entire companies to manage the key aspects of their business—attract and retain customers, build an employee culture, develop distinct products and services, and build strong brands—using a single cloud-based platform. Over 9,000 enterprises worldwide, including more than 75 percent of Fortune 100 companies (such as Amazon, Boeing, Chevron, Citibank, ESPN, FedEx, MasterCard, MetLife, Microsoft, PepsiCo, Prudential, Royal Caribbean, Southwest Airlines, and Toyota) use Qualtrics to gain market insights and manage customer, collaborator, employee, and brand experiences. In 2018, Qualtrics was acquired by SAP, the global market leader in enterprise application software, for \$8 billion. The acquisition enabled SAP to combine its experience in data management with Qualtrics'

expertise in experience management. For SAP, Cloud applications like Qualtrics are essential to its business strategy, as a differentiator from the likes of Amazon Web Services and Microsoft. Acknowledging the value of Qualtrics' expertise, SAP's CEO referred to Qualtrics as the "jewel in the crown of SAP." In July 2020, less than two years after acquiring Qualtrics, SAP announced that its plans to take the subsidiary public—a strategy that will enable Qualtrics to grow while remaining SAP's largest and most important go-to-market and research and development partner.<sup>1</sup>

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**M**aking marketing decisions in a fast-changing world is both an art and a science. Successful marketers recognize that the marketing environment is constantly presenting new opportunities and threats, and they understand the importance of continuously monitoring, forecasting, and adapting to that environment. One company that helps marketers gain market insight and better understand ever-changing customer needs is Qualtrics.

To make the best possible tactical decisions in the short run and the most effective strategic decisions in the long run, marketers need timely, accurate, and actionable information about consumers, the competition, and brands. Gaining a marketing insight and understanding its implications can often lead to a successful product launch or spur the growth of a brand.

In this chapter, we review the scope of marketing research and the steps involved in the marketing research process. We also consider how marketers can develop effective metrics for measuring marketing productivity.

## **THE SCOPE OF MARKETING RESEARCH**

Marketing managers often commission formal marketing studies of specific problems and opportunities, like a market survey, a product-preference test, a sales forecast by region, or an advertising evaluation. It's the job of the marketing researcher to produce insight to assist in the marketing manager's decision making.

Marketing research is the function that links the consumer, customer, and public to the marketer through 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.

## IMPORTANCE OF MARKETING INSIGHTS

Marketing research is all about generating insights. Marketing insights provide diagnostic information about how and why we observe certain effects in the marketplace and what that means to marketers.

Good marketing insights often form the basis of successful marketing programs. Consider the following examples:

When an extensive consumer research study of U.S. retail shoppers by Walmart revealed that the store's key competitive advantages were the functional benefit of "offers low prices" and the emotional benefit of "makes me feel like a smart shopper," its marketers used those insights to develop its "Save Money, Live Better" campaign. The new campaign, which replaced the 19-year-old "Always Low Prices. Always." slogan, won Walmart a REBRAND 100 Global Award of distinction and put a positive spin on Walmart's reputation for "cheap" merchandise, shifting consumers' focus from prices alone to how shopping at Walmart could help them attain a better lifestyle.

When marketing research showed that consumers viewed Walgreens largely as a convenience store with a pharmacy in the back, the company took steps to reposition itself as a premium health care brand, putting more emphasis on its wellness offerings, such as its walk-in clinics. Three years later, revenue had risen by 14 percent in a sluggish economy.<sup>2</sup>

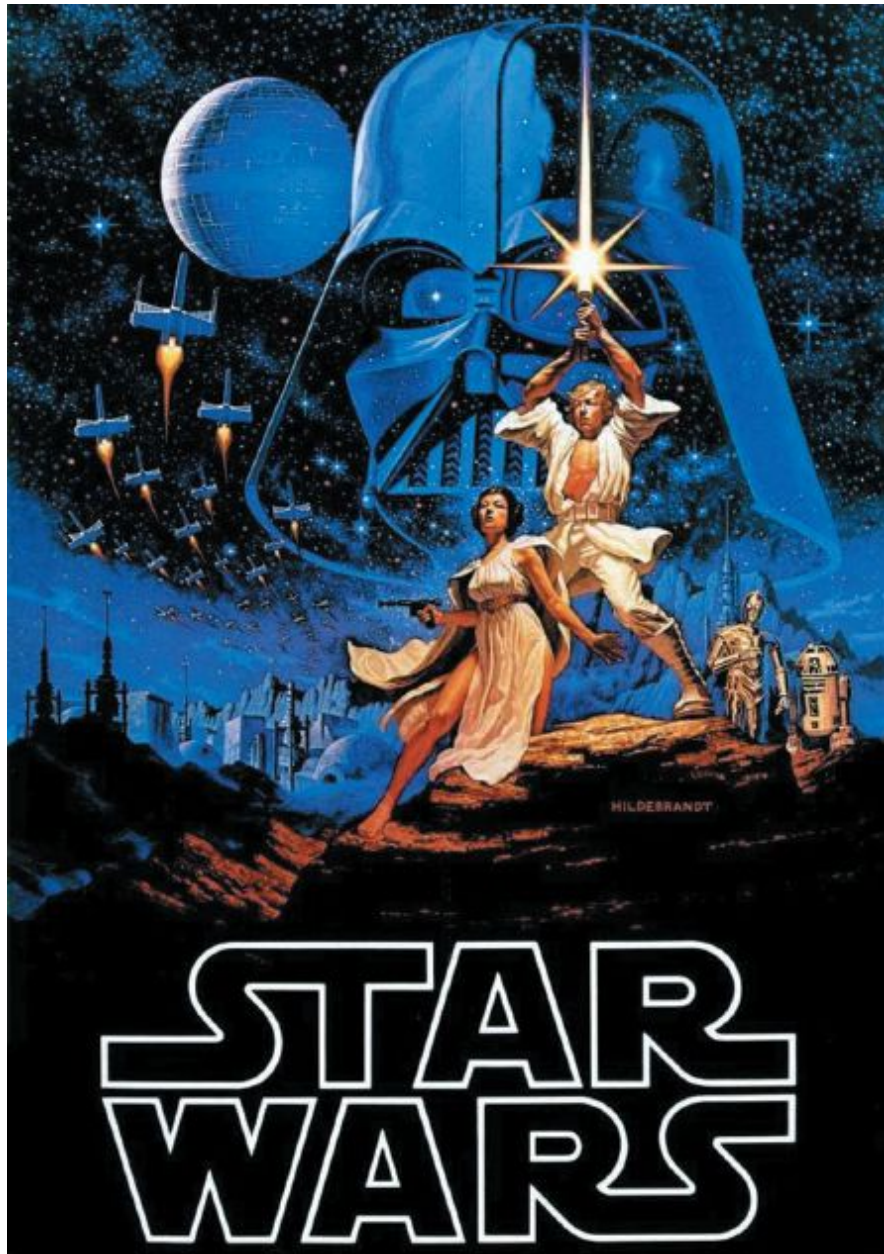
Gaining marketing insights is crucial for marketing success. To improve the marketing of its \$3 billion Pantene hair care brand,

Procter & Gamble conducted a deep dive into women's feelings about hair, using surveys with mood scales from psychology, high-resolution EEG research to measure brainwaves, and other methods. As a result, the company reformulated Pantene products, redesigned packages, pared the line down from 14 "collections" to eight, and fine-tuned the ad campaign.<sup>3</sup>

If marketers lack consumer insights, they often get in trouble. When Tropicana redesigned its orange juice packaging, dropping the iconic image of an orange skewered by a straw, it failed to adequately test for consumer reactions—with disastrous results. Sales dropped by 20 percent, and Tropicana reinstated the old package design after only a few months.<sup>4</sup>

In spite of the rapid growth of marketing research, many companies still fail to use it sufficiently or correctly. They may not understand the capabilities of marketing research or may not provide the researcher with a sufficiently specific definition of the problem or opportunity that needs to be explored. In addition, they may have unrealistic expectations about what researchers can offer. Failure to use marketing research properly has led to numerous gaffes, including the following historic one.



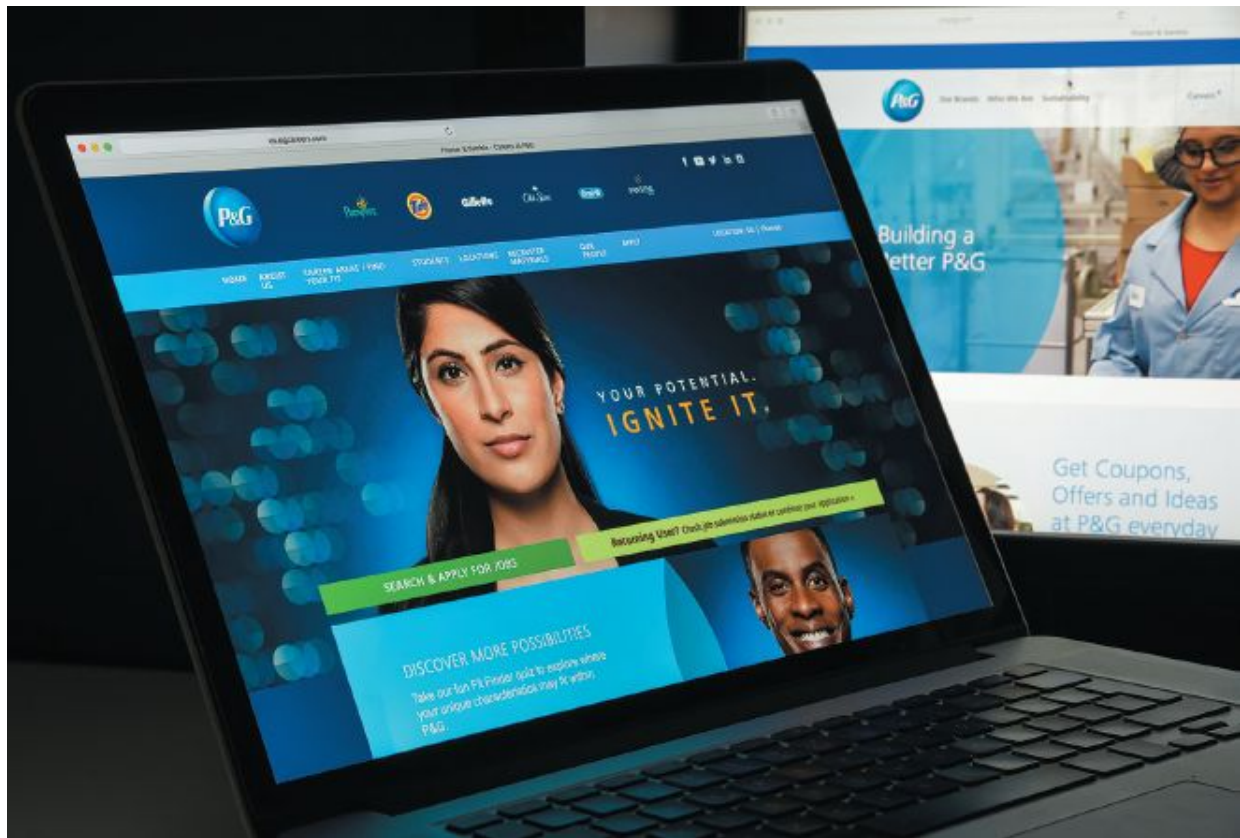


A marketing researcher whose evaluation of a proposal for *Star Wars* was based more on opinion than insight gained through careful research predicted failure for the multibillion-dollar blockbuster.

Source: World History Archive/Alamy Stock Photo

**General Foods.** In the 1970s, a successful marketing research executive left General Foods to try a daring gambit: bringing market research to

Hollywood to give film studios access to the same research that had spurred General Foods's success. A major film studio handed him a science fiction film proposal and asked him to research and predict its success or failure. His views would inform the studio's decision about whether to back the film. The research executive concluded the film would fail. For one, he argued, Watergate had made the United States less trusting of institutions, and as a result, its citizens in the 1970s prized realism and authenticity over science fiction. This particular film also had the word *war* in its title; the executive reasoned that viewers, suffering post-Vietnam hangover, would stay away in droves. The film was *Star Wars*, which eventually grossed more than \$4.3 billion in box office receipts alone. What this researcher delivered was information and opinion, not insight. He failed to study the script itself, to see that it was a fundamentally human story—of love, conflict, loss, and redemption—that happened to play out against the backdrop of space.<sup>5</sup>



P&G's Consumer & Market Knowledge Department analyzes market trends, consumer behavior, and competitor actions and plays an integral role in all phases of the life cycle of company brands.

Source: Casimiro/Alamy Stock Photo

## WHO DOES MARKETING RESEARCH?

Most companies use a combination of resources to study their industries, competitors, audiences, and channel strategies. They normally budget marketing research at 1 to 2 percent of company sales and spend a large percentage of that on the services of outside firms. In addition, most large companies have their own marketing research departments, which often play crucial roles within the organization. Here is how Procter & Gamble describes its marketing research department.



**Procter & Gamble** The Consumer & Market Knowledge (CMK) Department is Procter & Gamble's key internal compass, guiding and championing decisions related to brand and customer business development strategy based on in-depth analysis of consumers, shoppers, and the retail trade. CMK leads analysis of market trends and consumer habits/motivations, shopper behavior, and customer and competitive dynamics. It also designs and analyzes qualitative and quantitative consumer and shopper research studies, as well as syndicated market data. CMK is an integral partner, involved in all the stages of the brand life cycle, from design of a concept through final product development and all the way to the in-market launch driving business growth. CMK brings to life Procter & Gamble's stated global strategy, "Consumer is Boss."<sup>6</sup>

Marketing research firms fall into three categories: (1) Syndicated-service research firms, such as the Nielsen Company, Kantar Group, Westat, and IRI, gather consumer and trade information that they sell for a fee. (2) Custom marketing research firms carry out specific projects. (3) Specialty-line marketing research firms provide specialized research services (e.g., a field-service firm that sells field interviewing services to other firms).

Companies need not break their budgets to get helpful marketing research data. Libraries, universities, and chambers of commerce are all great sources of information. Government agencies, including the U.S. Census Bureau and Department of Commerce, have a wealth of free or inexpensive information available to entrepreneurs that can offer insights into growing or emerging markets. And the internet is bursting with valuable information on just about any topic. Buying mailing lists or using an inexpensive online tool like SurveyMonkey can also help smaller firms collect marketing information that will help them get their products to growing markets that contain the target customers they want to reach.

Alternatively, a company might gain market insights by observing its competitors. Many businesses, such as restaurants, hotels, and specialty retailers, routinely visit competitors to learn about changes they have made. Tom Stemberg, who founded the office supply superstore Staples, made

weekly unannounced visits to his own stores, competitors' stores, and other stores outside his category, always focused on "what the store was doing right" to get ideas for improving Staples.<sup>7</sup>

A company might gather market insights by tapping into employee knowledge and experience. No one may come into more contact with customers and understand a company's products, services, and brands better than its employees. Software maker Intuit puts employees into four- to six-person "two-pizza" teams. These teams aid market research efforts by going out and observing customers in all walks of life in order to identify problems Intuit might be able to solve. Intuit takes all the employees' proposed solutions and experiments with them, building products based on the ideas that seem to work best.<sup>8</sup>

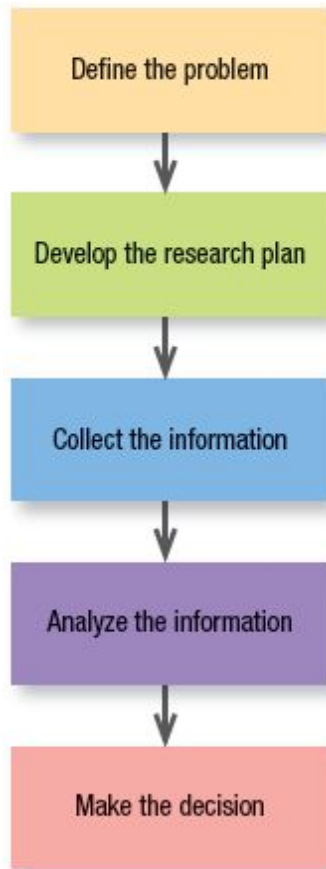


FIGURE 5.1  
The Marketing Research Process

## 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 five steps shown in [Figure 5.1](#). We illustrate these steps in the following situation.<sup>9</sup>

Consider the marketing research underlying American Airlines' decision to offer entertainment options on all of its flights, starting with the first-class passengers on long-haul flights. The airline was considering several options: (1) ultra-high-speed Wi-Fi service, (2) 124 channels of high-definition

satellite cable TV, and (3) a personal video entertainment system that lets each passenger have a customized in-flight experience. The marketing research manager was assigned to investigate how first-class passengers would rate ultra-high-speed Wi-Fi, and how much extra they would be willing to pay. One source estimated revenues of \$70 million from Wi-Fi access over 10 years if enough business-class passengers paid \$25. AA could thus recover its costs in a reasonable time, given that making the connection available would cost \$90,000 per plane.

## DEFINING THE PROBLEM

Marketing managers must be careful not to define the problem too broadly or too narrowly for the marketing researcher. A marketing manager who says, “Find out everything you can about first-class air travelers’ needs” will collect a lot of unnecessary information. One who says, “Find out whether enough passengers aboard a B777 flying direct between Chicago and Tokyo would pay \$25 for ultra-high-speed Wi-Fi service so we can break even in one year on the cost of offering this service” is taking too narrow a view of the problem.

To broaden and clarify the research parameters, the marketing researcher might ask, “Why does Wi-Fi have to be priced at \$25 as opposed to \$15, \$35, or some other price? Why does American have to break even on the service, especially if it attracts new customers, who will bring in more revenue?” Another relevant question might be “How important is it to be first in the market, and how long can the company sustain its lead before competition forces it to drop the price or offer the service free?” These questions focus on the key issues that the manager must address and, at the same time, are specific enough to be actionable.

The marketing manager ultimately defines the business question as follows: “Will offering high-speed Wi-Fi service create enough incremental preference and profit to justify its cost against other service enhancements American might make?” This question can be broken down into several sub-questions: (1) Should American offer high-speed Wi-Fi service? (2) If so, should it 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 the service be offered?

Next, the manager can translate the business questions into specific research objectives: (1) Determine what types of first-class passengers would respond most to ultra-high-speed Wi-Fi service. (2) Ascertain how many are likely to use it at different price levels. (3) Find out how many might choose American because of this new service. (4) Estimate how much long-term goodwill this service will add to American's image. (5) Find out how important ultra-high-speed Wi-Fi service is to first-class passengers relative to other services, such as a power plug or enhanced entertainment.

Marketing research varies with the type of information it aims to generate. Some is *exploratory*; its goal is to identify the problem and 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.

## DEVELOPING THE RESEARCH PLAN

The second stage of marketing research consists of developing the most efficient plan for gathering the needed information and then discovering what that will cost. Suppose American made a prior estimate that launching ultra-high-speed Wi-Fi service would yield a long-term profit of \$50,000. If the manager believes the marketing research will lead to an improved pricing and promotional plan and a long-term profit of \$90,000, he should be willing to spend up to \$40,000 on this research. If the research will cost more than \$40,000, it's not worth doing. The cost of the market research should be in line with its estimated benefits.

To design a research plan, we 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.

After determining the type of data, researchers usually start their investigation by examining whether some of the data that the company has already collected can be useful in addressing the research question. The next step involves utilizing the rich variety of low-cost and readily available secondary data from outside sources to partly or wholly solve the problem without collecting costly primary data. For instance, auto advertisers looking to get a better return on their online car ads might purchase a copy of a J.D. Power and Associates survey that gives insights into who buys specific brands and where advertisers can find them online.

When the needed data do not exist or are dated or unreliable, the researcher will need to collect primary data. Most marketing research projects do include some collection of primary data.

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

**Observational Research.** With **observational research**, researchers can gather fresh data by observing unobtrusively as customers shop or consume products. Sometimes researchers equip consumers with pagers and instruct them to write down or text what they're doing whenever prompted, or they hold informal interview sessions at a café or bar.<sup>10</sup> Photographs and videos can also provide a wealth of detailed information. Although privacy concerns have been expressed, some retailers are linking security cameras with software to record shopper behavior in stores. In its 1,000 retail stores, T-Mobile can track how people move around, how long they stand in front of displays, and which phones they pick up and for how long.<sup>11</sup>

**Ethnographic research** uses concepts and tools from anthropology and other social sciences to provide deep cultural understanding of how people live and work.<sup>12</sup> The goal is to immerse the researcher into consumers' lives to uncover unarticulated desires that might not surface in any other form of

research.<sup>13</sup> Fujitsu Laboratories, Herman Miller, Steelcase, and Xerox have embraced ethnographic research to design breakthrough products. Technology companies like IBM, Microsoft, and Hewlett-Packard have anthropologists and ethnologists working alongside systems engineers and software developers.<sup>14</sup>

Any type of firm can benefit from the deep consumer insights of ethnographic research. To boost sagging sales for its Orville Redenbacher popcorn, ConAgra spent nine months observing families at home and studying weekly diaries of how they felt about various snacks. Researchers found a key insight: The essence of popcorn is that it is a “facilitator of interaction.” Four nationwide TV ads followed with the tagline “Spending Time Together: That’s the Power of Orville Redenbacher.”

Ethnographic research isn’t limited to consumer products. UK-based Smith & Nephew, a global medical technology business, used extensive international ethnographic research with patients and clinicians to understand the physical and emotional toll of wounds, developing ALLEVYN Life, a new wound-management dressing, in the process.<sup>15</sup> In a business-to-business setting, a sharper focus on end users helped propel Thomson Reuters to greater financial heights.

**Thomson Reuters** Just before it acquired Reuters in 2008, global information services giant Thomson Corporation embarked on extensive research to better understand its ultimate customers. Thomson sold to businesses and professionals in the financial, legal, tax and accounting, scientific, and health care sectors, and it wanted to know how individual brokers and investment bankers used its data, research, and other resources to make day-to-day investment decisions for clients. Segmenting the market by its end users, rather than by its corporate purchasers, and studying the way they viewed Thomson versus competitors allowed the firm to identify market segments that offered growth opportunities. Thomson then conducted surveys and “day in the life” ethnographic research on how end users did their jobs. Using an approach called “three minutes,” researchers combined observation with

detailed interviews to understand what end users were doing three minutes before and after they used one of Thomson's products. Insights from the research helped the company develop new products and make acquisitions that led to significantly higher revenue and profits in the year that followed.<sup>16</sup>

To gather insight into the American Airlines Wi-Fi question, researchers might meander around first-class lounges to listen to how travelers talk about different carriers and their features or sit next to passengers on planes. They can also fly on competitors' planes to observe in-flight services.

**Focus Group Research.** A **focus group** is a gathering of 6 to 10 people carefully selected for demographic, psychographic, or other considerations and convened to discuss various topics at length for a small payment. A professional moderator asks questions and probes for participants' opinions based on the marketing managers' agenda. The goal is to uncover consumers' real motivations and the reasons why they say and do certain things. Sessions are typically recorded, and marketing managers often observe from behind two-way mirrors. To allow more in-depth discussion, focus groups are trending smaller in size.

Focus group research is a useful exploratory step, especially if a series of focus groups has revealed consistent preferences and attitudes. Even then, however, researchers must avoid generalizing because the preferences of the small number of people involved may not accurately reflect the market as a whole. Some marketers feel this research setting is too contrived and prefer less artificial means.

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 might move to how people view the different airlines, different existing services, different proposed services, and, specifically, ultra-high-speed Wi-Fi service.

**Survey Research.** With **survey research**, companies undertake surveys to assess people's knowledge, beliefs, preferences, and satisfaction. A company

such as American Airlines might prepare its own survey instrument, or (at a much lower cost) it might add questions to an omnibus survey that carries the questions of several companies. It can also pose 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. Or it might add a survey request at the end of calls to its customer service department.

When conducting surveys—online, by phone, or in person—companies must feel the information they’re getting from the mounds of data makes it all worthwhile. Hotels, which live or die by what guests think, leave questionnaires in guest rooms and use a variety of electronic means to measure guest satisfaction. They also keep tabs on what is said about them on rating sites like TripAdvisor and on social media and travel sites. Survey data can affect the services they offer, the room rates they can charge, and even employee compensation. Other entities in the hospitality field also use surveys to tweak service. Based on feedback from passengers on overnight flights, El Al Airlines combined food and beverage service so that passengers could finish meals and get to sleep more quickly. In response to a common customer complaint, Crystal Cruises simplified its pricing for internet access.<sup>17</sup>

Of course, companies may risk creating “survey burnout” and seeing response rates plummet. Keeping a survey short and simple is one key to drawing participants. Offering incentives is another. Walmart, Rite-Aid, Petco, and Staples sweeten an invitation to fill out a survey on the cash register receipt with a chance to win a prize.

**Behavioral Research.** Customers leave traces of their purchasing behavior in store scanning data, catalog purchases, and customer databases. **Behavioral research** uses these data to gain a better understanding of customers and their actions. Actual purchases reflect consumers’ preferences and often are more reliable than statements consumers offer to market researchers. For example, grocery shopping data show that, contrary to what they might state in interviews, high-income people don’t necessarily buy the

more expensive brands, and many low-income people buy some expensive brands. There is a wealth of online data to collect from consumers. Clearly, American Airlines can learn many useful things about its passengers by analyzing ticket purchase records and online behavior.

Experimental research is designed to capture cause-and-effect relationships by eliminating competing explanations for the findings. If the experiment is well designed and executed, 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 differences in responses are statistically significant. If we can eliminate or control extraneous factors, we can relate the observed effects to the variations in the treatments or stimuli.<sup>18</sup>

American Airlines might experiment by introducing ultra-high-speed Wi-Fi service on one of its regular flights from Chicago to Tokyo, 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 calendar 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 have a choice of three main research instruments in collecting primary data: questionnaires, qualitative measures, and technological devices.

**Questionnaires.** 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.<sup>19</sup> *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, rather than measuring how many think a certain way. [Table 5.1](#) provides examples of both types of questions.

**Qualitative Measures.** Some marketers prefer qualitative methods for gauging consumer opinion because they believe that 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. Such methods can be an especially useful first step in exploring consumers' perceptions because respondents may be less guarded and may reveal more about themselves in the process.

Qualitative research does have its drawbacks. The samples are often very small, and results may not generalize to broader populations. And different researchers examining the same qualitative results may draw very different conclusions.

Nevertheless, interest in using qualitative methods is increasing. Popular methods follow.<sup>20</sup>

- **Word association.** To identify the range of possible brand associations, ask subjects 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."
- **Projective techniques.** Give people an incomplete or ambiguous stimulus and ask them to complete or explain it. In "bubble exercises" empty bubbles, like those in cartoons, appear in scenes of people buying or using certain products or services. Subjects fill in the bubbles, indicating what they believe is happening or being said. In comparison tasks, people compare brands to people, countries, animals, activities, cars, nationalities, or even other brands.
- **Visualization.** Visualization requires people to create a collage from magazine photos or drawings to depict their perceptions.
- **Brand personification.** This asks subjects to compare the brand with a person (or even an animal or object): "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, the John Deere brand might make someone think of a rugged Midwestern male who is hardworking and trustworthy.
- **Laddering.** A series of increasingly specific "why" questions can reveal consumer motivation and deeper goals. Ask why someone wants to buy a Nokia cell phone. "They look well built" (attribute). "Why is it important that the phone be well built?" "It suggests 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’re in trouble” (a core value). The brand makes this person feel like a good neighbor, ready to help others.

Marketers don’t have to choose between qualitative and quantitative measures. Many use both, recognizing that their pros and cons can offset each other. For example, companies can recruit someone from an online panel to participate in an in-home product use test by capturing his or her reactions and intentions with a video diary and an online survey.

Name	Description	Example
<b>A. Closed-End Questions</b>		
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? <input type="checkbox"/> No one <input type="checkbox"/> Children only <input type="checkbox"/> Spouse <input type="checkbox"/> Business associates/friends/relatives <input type="checkbox"/> Spouse and children <input type="checkbox"/> An organized tour group
Likert scale	A statement with which the respondent shows the level of agreement / disagreement	Small airlines generally give better service than large ones. Strongly Disagree    Disagree    Neither Agree    Strongly disagree                      agree nor                      agree disagree 1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Semantic differential	A scale connecting two bipolar words. The respondent selects the point that represents his or her opinion.	I find American Airlines . . . Large _____ Small Experienced _____ Inexperienced Modern _____ Old-fashioned
Importance scale	A scale that rates the importance of some attribute	To me, airline in-flight service is Extremely Very Somewhat Not very Not at all important important important important important 1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Rating scale	A scale that rates some attribute from "poor" to "excellent"	American in-flight service is Excellent Very Good Good Fair Poor 1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Intention-to-buy scale	A scale that describes the respondent's intention to buy	If ultra-high-speed Wi-Fi service were available on a long flight, I would Definitely Probably Not sure Probably Definitely buy buy 3 not buy not buy 1 _____ 2 _____ 3 _____ 4 _____ 5 _____
<b>B. Open-End Questions</b>		
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 interpretation	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.	

someone from an online panel to participate in an in-home product use test by capturing his or her reactions and intentions with a video diary and an online survey.

**Measurement Devices.** Technology enables marketers to 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 movement.<sup>21</sup> Many advances in visual techniques studying the eyes and face have benefited

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Eye-tracking technology that notes which products grab and hold consumers' eyes and facial recognition software that estimates users' age and gender are among the methods companies can use to target interactive ads to appropriate groups.

Source: Martin BondAlamy Stock Photo

**Physiognomy** A number of increasingly cost-effective methods of studying the eyes and faces of consumers have been developed in recent years with diverse applications. Packaged goods companies such as P&G, Unilever, and Kimberly-Clark combine 3-D computer simulations of

product and packaging designs with store layouts and use eye-tracking technology to see where consumer eyes land first, how long they linger on a given item, and so on. After doing such tests, Unilever changed the shape of its Axe body wash container, the look of the logo, and the in-store display. In the International Finance Center Mall in Seoul, Korea, two cameras and a motion detector are placed above the LCD touch screens at each of the 26 information kiosks. Facial recognition software estimates users' age and gender, and interactive ads targeting the appropriate demographic then appear. Similar applications are being developed for digital sidewalk billboards in New York, Los Angeles, and San Francisco. Facial recognition cameras and software are being tested to identify and reward loyal U.S. customers of retailers and restaurants via opt-in smart-phone updates. In one commercial application, SceneTap uses cameras with facial detection software to post information about how full a bar is, as well as the average age and gender profile of the crowd, to help bar hoppers pick their next destination.<sup>22</sup>

As an alternative to traditional consumer research, some researchers have begun to develop sophisticated techniques adopted from neuroscience that monitor brain activity to better gauge consumer responses to marketing efforts. The term *neuromarketing* describes brain research on the effects of marketing stimuli. Firms are using EEG (electroencephalograph) technology to correlate brand activity with physiological cues such as skin temperature or eye movement and thus gauge how people react to ads.

Researchers studying the brain have found different results from conventional research methods. One group of researchers at UCLA used functional magnetic resonance imaging (fMRI) to find that the Super Bowl ads for which subjects displayed the highest brain activity were different from the ads with the highest stated preferences. Other research found little effect from product placement unless the products in question played an integral role in the storyline. In addition, several studies have found higher correlations with brain wave research and behavior than with surveys. For



example, brain waves predicted music purchases better than stated music preferences did.

Although it may offer different insights from conventional techniques, neurological research can still be fairly expensive and has not been universally accepted. Given the complexity of the human brain, many researchers caution that it should not form the sole basis for marketing decisions. The measurement devices to capture brain activity can also be highly obtrusive, using skull caps studded with electrodes or creating artificial exposure conditions.<sup>23</sup>

## COLLECTING THE INFORMATION

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 and must be contacted again or replaced. Others will refuse to cooperate or will give biased or dishonest answers. In order to control costs while maintaining high-quality responses, a company must develop a meaningful sampling and data collection plan.

**Sampling Plan.** After choosing the research approach and instruments, the marketing researcher must put together a sampling plan designed to obtain high-quality responses while keeping costs in line. This calls for three decisions:

- **Sampling unit.** The key question here is *Whom should we survey?* In the American Airlines survey, should the sampling unit consist of only first-class business travelers, only first-class vacation travelers, or both? Should it include travelers under age 18? Both traveler and spouse? 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.
- **Sample size.** The key question here is *How many people should we survey?* Large samples give more reliable results, but it's not necessary to sample the entire target population. Samples of less than 1 percent of a population can often provide good reliability with a credible sampling procedure.
- **Sampling procedure.** The key question here is *How should we choose the respondents?* Probability sampling allows marketers to calculate confidence limits for sampling error and

makes the sample more representative. Thus, after choosing the sample, marketers could conclude that “the interval of five to seven 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.”

**Contact Methods.** The marketing researcher must decide how to contact the subjects: online, in person, by mail or e-mail, or by telephone.

**Online.** The internet offers many ways to do research. A company can embed a questionnaire in its website and offer an incentive for answering, or it can place a banner on a frequently visited site, inviting people to answer questions and possibly win a prize. Online product testing can provide information much faster than traditional new-product marketing research techniques.

Marketers can also host a real-time consumer panel or virtual focus group or sponsor a chat room, bulletin board, or blog where they introduce questions from time to time. They can ask customers to brainstorm or have the company’s Twitter followers rate an idea. Insights from Kraft-sponsored online communities helped the company develop its popular line of 100-calorie snacks.

Del Monte tapped its 400-member, handpicked online community called “I Love My Dog” when it was considering a new breakfast treat for dogs. The consensus request was for something with a bacon-and-egg taste and an extra dose of vitamins and minerals. Working with the online community throughout product development, the company introduced fortified “Snausages Breakfast Bites” in half the time usually required to launch a new product.

A host of new online survey providers have entered the market, such as SurveyMonkey, Survey-Gizmo, Qualtrics, and Google Consumer Surveys. Founded in 1999, SurveyMonkey has over 15 million registered users. Members can create surveys to quickly post on blogs, websites, Facebook, or Twitter. Like any survey, however, online surveys need to ask the right people the right questions on the right topic.

Other means to use the internet as a research tool include tracking how customers *clickstream* through the company’s website and move to other

sites. Marketers can post different prices, headlines, and product features on separate websites or at different times to compare their relative effectiveness. Online researchers also use text messaging in various ways—to conduct a chat with a respondent, to probe more deeply with a member of an online focus group, or to direct respondents to a website. Text messaging is also a useful way to get teenagers to open up on topics.

**In Person.** 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. Personal interviewing is also the most expensive method, is subject to interviewer bias, and requires more planning and supervision. In *arranged interviews*, marketers contact respondents for an appointment and frequently offer a small incentive or payment. In *intercept interviews*, researchers stop people at a shopping mall or busy street corner and request an interview on the spot. Intercept interviews must be quick, and they run the risk of including nonprobability (not random) samples.

**Mail and E-mail.** The mail questionnaire is one 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, responses are usually few or slow.

**Telephone.** Telephone interviewing allows the interviewer to gather information quickly, clarify questions if respondents do not understand them, and follow up on responses that have the potential to provide additional valuable information. Interviews must be brief and not too personal. Although the response rate has typically been higher than for mailed questionnaires, telephone interviewing in the United States is getting increasingly difficult because of consumers' growing antipathy toward telemarketers.

**Data Mining.** Through data mining, marketing statisticians can extract, from the mass of data, useful information about individuals, trends, and

segments.<sup>24</sup> Data mining uses sophisticated statistical and mathematical techniques such as cluster analysis (grouping objects to ensure that objects in the same group or cluster are more similar to one another than to those in other groups), predictive modeling (forecasting outcomes of uncertain events), and cognitive modeling (simulating human decision making and problem solving using a computerized model).

In general, companies can use their data in several ways to create customer value and gain competitive advantage:

- ***To identify prospects***—Many companies generate sales leads by advertising their product or service and including a response feature (such as a link to a home page, a business reply card, or a toll-free phone number) in order to build a database from customer responses. The company sorts through the database to identify the best prospects and then contacts them by mail, e-mail, or phone to try to convert them into customers.
- ***To decide which customers should receive a particular offer***—Companies interested in selling, up-selling, and cross-selling set up criteria describing the ideal target customer for a particular offer. Then they search their customer databases for those who most closely resemble the ideal. By noting response rates, a company can improve its targeting precision. Following a sale, it can set up an automatic sequence of activities: One week later e-mail a thank-you note; five weeks later e-mail a new offer; 10 weeks later (if the customer has not responded) e-mail an offer of a special discount.
- ***To deepen customer loyalty***—Companies can build interest and enthusiasm by remembering customer preferences and sending appropriate gifts, discount coupons, and interesting reading material.
- ***To reactivate customer purchases***—Automatic mailing programs (automatic marketing) can send out birthday or anniversary cards, holiday shopping reminders, or off-season promotions. The database can help the company make attractive or timely offers.
- ***To avoid serious customer mistakes***—A major bank confessed to a number of mistakes it had made by not using its customer database well. In one case, the bank charged a customer a penalty for a late payment on his mortgage, failing to note that he headed a company that was a major depositor in this bank. The customer quit the bank. In a second case, two different staff members of the bank phoned the same mortgage customer offering a home equity loan at different prices. Neither knew the other had made the call. In a third case, the bank gave a premium customer only standard service in another country.

## ANALYZING THE INFORMATION AND MAKING THE DECISION

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

The main survey findings for the American Airlines case showed that

- Passengers would use ultra-high-speed Wi-Fi service primarily to stay connected and to receive and send large documents and e-mails. Some would also surf the Web to download videos and songs. They would charge the cost to their employers.
- At \$25, about 5 of 10 first-class passengers would use Wi-Fi service during a flight; at \$15, about 6 would. Thus, a fee of \$15 would produce less revenue ( $\$90 - 6 \times \$15$ ) than a \$25 fee ( $\$125 - 5 \times \$25$ ). 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 the service on each plane to break even.
- Offering ultra-high-speed Wi-Fi service would strengthen American Airlines' image as an innovative and progressive carrier and earn it some new passengers and customer goodwill.

The American Airlines managers who commissioned the research need to weigh the evidence. If their confidence in the findings is low, they may decide against introducing ultra-high-speed Wi-Fi service. If they are predisposed to launching it, the findings support their inclination. They may even decide to study the issue further and do more research. The decision is theirs, but rigorously done research provides them with insight into the matter.

When analyzing the available information and making a decision, it is important to draw a line between market data and market insights. Information is not knowledge, noted Albert Einstein. Likewise, market data alone are typically not very useful unless they offer insights that improve managers' understanding of the problem and enhance the cost-effectiveness

of their actions. Thus, interpreting the data and relating them to the problem at hand play a crucial role in managerial decision making.

## MEASURING MARKET DEMAND

Understanding the marketing environment and conducting marketing research can help to identify marketing opportunities. The company must then measure and forecast the size, growth, and profit potential of each new opportunity. Sales forecasts prepared by marketing are used by finance to raise cash for investment and operations; by manufacturing to establish capacity and output; by purchasing to acquire the right amount of supplies; and by human resources to hire the needed workers. If the forecast is off the mark, the company will face excess or inadequate inventory. Because it is based on estimates of demand, managers need to define exactly what they mean by “market demand.”

DuPont’s Performance Materials group knew that even when DuPont Tyvek had the dominant share of the \$100-million market for air-barrier membranes in construction, there was greater opportunity to tap into the entire multi-billion-dollar U.S. home construction market with additional products and services.

## KEY CONCEPTS IN DEMAND MEASUREMENT

The major concepts in demand measurement are market/company demand, market forecast, company sales forecast, market potential, and company sales potential. We discuss these concepts in more detail next.

**Market demand** for an offering is the total volume that could be bought by a defined customer group in a defined geographic area in a defined time period in a defined marketing environment under a defined marketing program.

**Company demand** is the company’s estimated share of market demand at alternative levels of company marketing effort in a given time period. It depends on how the company’s products, services, prices, and communications are perceived relative to those of competitors. Other things



equal, the company's market share depends on the relative scale and effectiveness of its market expenditures. As noted previously, marketing model builders have developed sales response functions to measure how a company's sales are affected by its marketing expenditure level, marketing mix, and marketing effectiveness.<sup>25</sup>

The market demand corresponding to the actual level of industry marketing expenditure is called the **market forecast**.

The **company sales forecast** is the expected level of company sales based on a chosen marketing plan and an assumed marketing environment. Two other concepts are important here. A *sales quota* is the sales goal set for a product line, company division, or sales representative. It is primarily a managerial device for defining and stimulating sales effort, and it is often set slightly higher than estimated sales to stretch the sales force's effort. A *sales budget* is a conservative estimate of the expected volume of sales, primarily for making current purchasing, production, and cash flow decisions. It's based on the need to avoid excessive risk and is generally set slightly lower than the sales forecast.

Total **market potential** consists of the *maximum* sales available to all firms in an industry during a given period, under a given level of industry marketing effort, and under extant environmental conditions. The market forecast shows *expected* market demand, not maximum market demand. For the latter, we need to visualize the level of market demand resulting from a very high level of industry marketing expenditure, where further increases in marketing effort would have little effect. Market potential is the limit approached by market demand as industry marketing expenditures approach infinity for a given marketing environment. The phrase "for a given market environment" is crucial. Consider the market potential for automobiles. It's higher during prosperity than during a recession. A common way to estimate total market potential is to multiply the potential number of buyers by the average quantity each buyer purchases and then by the price.

**Company sales potential** is the sales limit approached by company demand as company marketing effort increases relative to that of competitors. The absolute limit of company demand is, of course, the market

potential. The two would be equal if the company captured 100 percent of the market. In most cases, company sales potential is less than the market potential, even when company marketing expenditures increase considerably. Each competitor has a hard core of loyal buyers unresponsive to other companies' efforts to woo them, which makes it challenging to capture all competitors' customers in the market.

## FORECASTING MARKET DEMAND

Forecasting is the art of anticipating what buyers are likely to do under a given set of conditions. For major consumer durables such as appliances, research organizations conduct periodic surveys of consumer buying intentions, asking questions like *Do you intend to buy an automobile within the next six months?* Surveys also inquire into consumers' present and future personal finances and expectations about the economy. They combine bits of information into a consumer confidence measure (Conference Board) or a consumer sentiment measure (Survey Research Center of the University of Michigan). In most markets, good forecasting is a key factor in success.

Companies commonly prepare a macroeconomic forecast first, followed by an industry forecast, followed by a company sales forecast. The macroeconomic forecast projects inflation, unemployment, interest rates, consumer spending, business investment, government expenditures, net exports, and other variables. The end result is a forecast of gross domestic product (GDP) that the firm uses, along with other environmental indicators, to forecast industry sales. The company derives its sales forecast by assuming it will win a certain market share.

How do firms develop forecasts? They may create their own or buy forecasts from outside sources, such as marketing research firms that interview customers, distributors, and other knowledgeable parties. Specialized forecasting firms produce long-range forecasts of particular macroenvironmental components such as population, natural resources, and technology. Examples are IHS Global Insight (a merger of Data Resources and Wharton Econometric Forecasting Associates), Forrester Research, and the Gartner Group. Futurist research firms such as the Institute for the

Future, Hudson Institute, and the Futures Group produce speculative scenarios.

All forecasts are built on one of three information bases: what people say, what people do, or what people have done. Using what people say requires surveying buyers' intentions, composites of sales force opinions, and expert opinion. Building a forecast on what people do means putting the product into a test market to measure buyer response. To use the final basis—what people have done—firms analyze records of past buying behavior or use time-series analysis or statistical demand analysis.

- **Industry Sales and Market Shares.** The industry trade association will often collect and publish total industry sales, although it usually does not list individual company sales separately. With this information, however, each company can evaluate its own performance against that of the industry as a whole. If a company's sales are increasing by 5 percent a year and industry sales are increasing by 10 percent, the company is losing its relative standing in the industry.

Another way to estimate sales is to buy reports from a marketing research firm that audits total sales and brand sales. Nielsen Media Research audits retail sales in various supermarket and drugstore product categories. A company can purchase this information and compare its performance to that of the total industry or of any competitor to see whether it is gaining or losing share, overall or by brand. Because distributors typically will not supply information about how many competitors' products they are selling, business-to-business marketers operate with less knowledge of their market share results.

- **Survey of Buyers' Intentions.** For business buying, research firms can carry out buyer-intention surveys for plant, equipment, and materials, usually falling within a 10 percent margin of error. These surveys are useful in estimating demand for industrial products, consumer durables, product purchases that require advance planning, and new products. Their value increases to the extent that buyers are few, the cost of reaching them is low, and they have clear intentions that they willingly disclose and implement. One popular survey-based statistical technique used in market research is conjoint analysis, which helps determine how consumers value different attributes (product features, service benefits, and price) that make up a particular offering.<sup>26</sup>
- **Composite of Sales Force Opinions.** When interviewing buyers is impractical, the company may ask its sales representatives to estimate their future sales. Sales force forecasts do yield a

number of benefits. Sales reps might have better insight into developing trends than any other group, and forecasting might give them greater confidence in their sales quotas and more incentive to achieve them. A “grassroots” forecasting procedure provides detailed estimates broken down by product, territory, customer, and sales rep.

Few companies use these estimates without making some adjustments, however. Sales representatives might be pessimistic or optimistic, they might not know how the company’s marketing plans will influence future sales in their territory, and they might deliberately underestimate demand so the company will set a low sales quota. To encourage better estimating, the company could offer incentives or assistance, such as information about marketing plans or how past forecasts compared with actual sales.

- **Expert Opinion.** Companies can also obtain forecasts from experts, including dealers, distributors, suppliers, marketing consultants, and trade associations. Dealer estimates are subject to the same strengths and weaknesses as sales force estimates. Many companies buy economic and industry forecasts from well-known economic-forecasting firms that have more data available and offer more forecasting expertise. Occasionally, companies will invite a group of experts to prepare a forecast. The experts exchange views and produce an estimate as a group (*group-discussion method*) or individually, in which case another analyst might combine the results into a single estimate (*pooling of individual estimates*). Further rounds of estimating and refining follow (the Delphi method).<sup>27</sup>
- **Past-Sales Analysis.** Firms can develop sales forecasts on the basis of past sales. *Time-series analysis* breaks past sales into four components (trend, cycle, seasonal, and erratic) and projects them into the future. *Exponential smoothing* projects the next period’s sales by combining and the most recent sales, giving more weight to the latter. *Statistical demand analysis* measures the impact of a set of causal factors (such as income, marketing expenditures, and price) on the sales level. *Econometric analysis* builds sets of equations that describe a system and statistically derives the different parameters that make up the equations. Advanced machine learning techniques are revolutionizing marketing by automating and speeding up tasks that range from analyzing sales and revenue to spotting industry trends.
- **Market-Test Method.** When buyers don’t plan their purchases carefully or experts are unavailable or unreliable, a direct market test can help forecast new-product sales or the sales of established products in a new distribution channel or territory.

## MEASURING MARKETING PRODUCTIVITY

Although we can easily quantify marketing expenses and investments as inputs in the short run, the resulting outputs (such as broader brand awareness, enhanced brand image, greater customer loyalty, and improved new-product prospects) may take months or years to manifest themselves. Meanwhile, internal changes within the organization and external changes in the marketing environment may coincide with the marketing expenditures, making it hard to isolate their effects.<sup>28</sup>

Nevertheless, marketing research must assess the efficiency and effectiveness of marketing activities. Two complementary approaches to measuring marketing productivity are (1) *marketing metrics* to assess marketing effects and (2) *marketing-mix modeling* to estimate causal relationships and measure how marketing activity affects outcomes. **Marketing dashboards** are a structured way to disseminate the insights gleaned from these two approaches.

## MARKETING METRICS

Marketers employ a wide variety of measures to assess marketing effects.<sup>29</sup> Marketing metrics is the set of measures that help marketers quantify, compare, and interpret their performance.<sup>30</sup>

The CMO of Mary Kay cosmetics would focus on four long-term brand strength metrics—market awareness, consideration, trial, and 12-month beauty consultant productivity—as well as a number of short-term, program-specific metrics such as ad impressions, website traffic, and purchase conversion.

The VP of marketing at Virgin America would look at a broad set of online metrics—cost per acquisition, cost per click, and cost per thousand page impressions (CPM). She would also look at total dollars driven by natural and paid search and online display advertising, as well as at tracking results and other metrics from the offline world.

Marketers choose one or more measures based on the particular issues or problems they face. Mindbody, a Web-based business management software provider for wellness and beauty industries worldwide, tracks numerous online analytics, including landing-page conversions, click-through rates for online ads, and rankings on Google search. In addition, Mindbody monitors the following online metrics on a weekly basis: (1) *Website analytics* detail site navigation and online interaction. (2) *Social media presence* shows demographic and geographic responses to social media channels across different markets. (3) *Permission marketing statistics* measure interactions and engagement with consumers from automated emails.

London Business School's Tim Ambler believes that firms can split evaluation of marketing performance into two parts: short-term results and changes in brand equity.<sup>31</sup> Short-term results often reflect profit-and-loss concerns as shown by sales turnover, shareholder value, or some combination of the two. Brand-equity measures could include customer awareness, attitudes, and behaviors; market share; relative price premium; number of complaints; distribution and availability; total number of customers; perceived quality, and loyalty and retention.<sup>32</sup>

Companies can also monitor an extensive set of internal metrics, such as innovation. For example, 3M tracks the proportion of sales resulting from its recent innovations. Ambler also recommends developing employee measures and metrics, arguing that "end users are the ultimate customers, but your own staff are your first; you need to measure the health of the internal market."

## MARKETING-MIX MODELING

Marketing accountability also means that marketers must more precisely estimate the effects of different marketing investments. **Marketing-mix models** analyze data from a variety of sources such as retailer scanner data, company shipment data, as well as pricing, media, and promotion expenditure data, to understand more precisely the effects of specific marketing activities.<sup>33</sup> To deepen understanding, marketers can conduct multivariate analyses, such as regression analysis, to investigate how each marketing element influences marketing outcomes such as brand sales or market share.

Especially popular with packaged-goods marketers such as Procter & Gamble, Clorox, and Colgate, the findings from marketing-mix modeling help allocate or reallocate expenditures. Analyses explore which part of ad budgets are wasted, what optimal spending levels are, and what minimum investment levels should be.

Although marketing-mix modeling helps to isolate effects, it is less effective at assessing how different marketing elements work in combination. Wharton's Dave Reibstein also notes that it has three other



shortcomings:<sup>34</sup> (1) Marketing-mix modeling focuses on incremental growth instead of on baseline sales or long-term effects. (2) The integration of important metrics such as customer satisfaction, awareness, and brand equity into marketing-mix modeling is limited. (3) Marketing-mix modeling generally fails to incorporate metrics related to competitors, the trade, or the sales force (the average business spends far more on the sales force and trade promotion than on advertising or consumer promotion).

## MARKETING DASHBOARDS

Firms also employ organizational processes and systems to make sure they maximize the value of all these different metrics. Management can assemble a summary set of relevant internal and external measures in a marketing dashboard for synthesis and interpretation. Marketing dashboards are like the instrument panel in a car or plane, visually displaying real-time indicators to ensure proper functioning. Formally, marketing dashboards are “a concise set of interconnected performance drivers to be viewed in common throughout the organization.”<sup>35</sup> Company input to the marketing dashboard should include two key market-based scorecards: one that reflects performance and one that provides possible early warning signals.

Dashboards are only as good as the information on which they’re based, but sophisticated visualization tools are helping bring data alive. Color-coding, symbols, and different types of charts, tables, and gauges are easy to use and effective. Some companies are also appointing marketing controllers to review budget items and expenses. Increasingly, these controllers use business intelligence software to create digital versions of marketing dashboards that aggregate data from internal and external sources.

Marketing dashboards provide all the up-to-the-minute information necessary to run the business operations for a company—such as sales versus forecast, distribution channel effectiveness, brand-equity evolution, and human capital development. An effective dashboard will focus thinking, improve internal communications, and reveal where marketing investments are paying off and where they aren’t. There are four common measurement “pathways” marketers pursue today.<sup>36</sup>

- The *customer metrics pathway* looks at how prospects become customers, from awareness to preference to trial to repeat purchase, or some less linear model. This area also examines how the customer experience contributes to the perception of value and competitive advantage.
- The *unit metrics pathway* reflects what marketers know about sales of product/service units—how much is sold by product line and/or by geography, the marketing cost per unit sold as an efficiency yardstick, and where and how margin is optimized in terms of characteristics of the product line or distribution channel.
- The *cash-flow metrics pathway* focuses on how well marketing expenditures are achieving short-term returns. Program and campaign ROI models measure the immediate impact or net present value of profits expected from a given investment.
- The *brand metrics pathway* tracks the longer-term impact of marketing through brand-equity measures that assess both the perceptual health of the brand from customer and prospective customer perspectives and the overall financial health of the brand.

Ideally, over time the number of metrics on the dashboard will be reduced to a few key drivers. Meanwhile, the process of developing and refining the marketing dashboard will undoubtedly raise and resolve many key questions about the business.

Some executives worry that they'll miss the big picture if they focus too much on a set of numbers on a dashboard. Critics are concerned about privacy and the pressure the technique places on employees. But most experts feel the rewards offset the risks.

## marketing INSIGHT

### Six Ways to Draw New Ideas from Your Customers

Customers—consumers and businesses—can be an effective source for generating new ideas that could lead to successful market offerings. Several popular strategies for gathering insights from current and potential customers are outlined below.

- Observe how customers are using your product. Medtronic, a medical device company, has salespeople and market researchers regularly observe spine surgeons who use their products and

competitive products to learn how the company's products can be improved. After living with lower-middle-class families in Mexico City, Procter & Gamble researchers devised Downy Single Rinse, a fabric softener that removed an arduous step from the partly manual laundry process there.

- Ask customers about their problems with your products. Komatsu Heavy Equipment sent a group of engineers and designers to the United States for six months to ride with equipment drivers and learn how to make Komatsu products better. Procter & Gamble, recognizing the frustration of consumers with potato chips that break and are difficult to save after opening the bag, designed Pringles to be firmer and uniform in size so as to be encased in a protective, tennis-ball-type can.
- Ask customers about their dream products. Ask your customers what they want your product to do, even if the ideal sounds impossible. One 70-year-old camera user told Minolta he would like the camera to make his subjects look better and not show their wrinkles and aging. In response, Minolta produced a camera with two lenses, one for rendering softer images of the subjects.
- Actively solicit feedback from customers. Levi Strauss uses youth panels to discuss lifestyles, habits, values, and brand engagements, Cisco runs Customer Forums to improve its offerings, and Harley-Davidson solicits product ideas from its one million H.O.G. (Harley Owners Group) members. P&G's corporate global website includes a Share Your Thoughts section to solicit advice and feedback from customers.
- Form a brand community of enthusiasts who discuss your product. Harley-Davidson and Apple have strong brand enthusiasts and advocates. Sony engages in collaborative dialogs with consumers to co-develop its PlayStation products. LEGO draws on kids and influential adult enthusiasts for feedback on new product concepts in early stages of development.
- Encourage or challenge your customers to change or improve your product. [Salesforce.com](https://www.salesforce.com) wants its users to develop and share new software applications using simple programming tools. International Flavors & Fragrances gives a toolkit to its customers to modify specific flavors, which IFF then manufactures. LSI Logic

Corporation also provides customers with do-it-yourself toolkits so customers can design their own specialized chips. And BMW posted a toolkit on its website to let customers develop ideas using telematics and in-car online services.<sup>37</sup>

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## SUMMARY

1. Marketing research is all about generating insights. Marketing insights provide diagnostic information about how and why we observe certain effects in the marketplace and what that means to marketers. Good marketing research is characterized by the scientific method, creativity, multiple research methods, accurate model building, cost–benefit analysis, healthy skepticism, and an ethical focus.
2. The marketing research process consists of defining the problem, developing the research plan, collecting information, analyzing the information, and making the decision. In conducting research, firms must decide whether to collect their own (primary) data or use data that already exist (secondary data). They must also choose a research approach (observational, focus group, survey, or behavioral) and research instruments (questionnaires, qualitative measures, or technological devices). In addition, they must decide on a sampling plan, contact methods (online, in person, mail or e-mail, or telephone), and data-mining strategies.
3. To estimate current demand, companies need to determine the size, growth, and profit potential of each market opportunity. To estimate future demand, companies survey buyers' intentions, solicit the input of their sales forces, gather expert opinions, analyze past sales, or engage in market testing. Mathematical models, advanced statistical techniques, and computerized data collection procedures are essential to all types of demand and sales forecasting.
4. Marketing research must assess the efficiency and effectiveness of marketing activities. Two complementary approaches to measuring marketing productivity are (1) marketing metrics to assess marketing effects and (2) marketing-mix modeling to estimate causal relationships and measure how marketing activity affects outcomes. The insights gleaned from these two approaches must be disseminated within the organization. Marketing dashboards provide all the up-to-the-minute

information necessary to run the business operations for a company—such as actual sales versus forecast, distribution channel effectiveness, brand-equity evolution, and the development of human capital. Company input to the marketing dashboard should include two key market-based scorecards that reflect performance and provide possible early warning signals.

## marketing SPOTINSIGHT

### **IDEO**

IDEO is an international design company with studios in North America, Asia, and Europe. It works with a diverse roster of clients across business, governmental, and social sectors to create positive impact through design. IDEO uses a human-centered approach to problem-solving known as design thinking, which prioritizes the needs of people as central drivers in creating products, services, and experiences. IDEO has designed products and services including Apple's first computer mouse; a network of world-class, affordable schools in Peru; and an inclusive and accessible voting system for Los Angeles County.

IDEO has roots dating back to 1978, but took its name in 1991 as a design firm that focused on product design and engineering. Like many other firms, it initially employed engineers from the industrial, electrical, manufacturing, and chemical fields to create and improve client products. However, IDEO set itself apart from other design firms through its multidisciplinary approach and by popularizing design thinking. As IDEO grew, the company took on a greater array of projects and employed people with a much wider breadth of skills. It sought the perspectives of marketers, anthropologists, doctors, teachers, architects, and experts in other fields.



Source: Courtesy of IDEO

Every aspect of the company—from the organizational structure and physical spaces to the hiring, training, and managing of employees—reflects a set of seven core values that IDEO articulated with the goal of fostering a creative and collaborative community within the company. The values are Talk Less, Do More; Make Others Successful; Learn from Failure; Embrace Ambiguity; Be Optimistic; Collaborate; and Take Ownership. In IDEO offices, the desks of partners and senior leaders are interwoven with the desks of junior designers to create the conditions for collaboration across all levels. Open, flexible spaces allow employees to showcase their prototypes and host brainstorming sessions.

IDEO has applied its design thinking approach to a variety of innovative products, services, and experiences spanning industries and sectors. When Oral-B asked IDEO to design a new toothbrush for young children in 1996, IDEO began by observing kids brushing their teeth. During their observations, IDEO noticed that children hold their toothbrushes differently than adults do. Whereas adults have the fine motor skills to move their toothbrushes with just their fingers, children grip the toothbrush with their fist to move it around. Adult toothbrushes posed problems for children because they were thin and hard to hold.



IDEO used this realization to create a toothbrush with a thick, squishy grip. This simple innovation was widely adopted and has become the dominant form-factor for children's toothbrushes.

Another example comes from Los Angeles, where county leaders wanted to revamp their antiquated voting system, which dated back to the 1960s. Los Angeles County hired IDEO to design the concept, look, and feel of its updated system, a modular solution that could adapt over time. With nearly 5 million registered voters, LA County represents the largest voting jurisdiction in the United States. IDEO researchers organized prototyping events at community centers around the county, hearing from voters of all ages and backgrounds. IDEO created a voting system that would be useful and accessible to all types of voters: those who are vision and hearing impaired, are in wheelchairs, have learning disabilities, are unfamiliar with technology, and speak languages other than English. The new system debuted during the 2020 Presidential Primary.

IDEO has also partnered with The North Face to help build the outdoor-product company's brand story in China. The North Face wanted to expand its presence in China but found that the extreme-sport and adventuring narratives used in the company's U.S. brand story did not resonate with Chinese consumers. IDEO researchers found that Chinese consumers responded better to a brand story that encouraged them to escape big-city life and enjoy the relaxing freedom of spending time with others in nature. IDEO researchers and designers helped build the company's Chinese marketing campaign, and they collaborated on digital platforms and in-store displays to attract new customers.

Working with the J.M. Smucker Company, IDEO helped Folgers, America's leading at-home coffee brand, to better connect with a millennial audience. The collaboration resulted in 1850, a brand inspired by the heritage and history of Folgers. IDEO helped design the go-to-market product experience, including packaging, retail, and merchandise. Introduced in 2018, 1850 was considered the top launch in the Coffee Category for 2019.

The one constant behind IDEO's many solutions is its application of human-centered design. IDEO continues to uphold its philosophy that the best design solutions are found by orienting the process around the user's desires and needs. IDEO has applied human-centered design to a multitude of fields, including financial services, nonprofit organizations, brand building, health care, learning and education, and consumer goods.<sup>38</sup>

### **Questions**

1. Why has IDEO been so successful?
2. What is the most difficult challenge that IDEO faces in conducting its research and designing its products?
3. In the end, IDEO creates great solutions for companies that then receive all the credit. Should IDEO try to create more brand awareness for itself? Why or why not?

### **LEGO**

LEGO is one of the world's most recognizable toys. The small, colorful building blocks have spawned countless sets, figurines, video games, and even movies and theme parks. LEGO is built on a very simple concept: Each block fits together with every other block, which creates an endless combination of buildings, robots, cars, and anything else the user can think of. LEGO employs a design-thinking approach to its product innovation, keeping things fresh with new releases that utilize the colorful bricks in creative ways. In 2017, LEGO became the world's largest toy manufacturer and is one of the strongest brands across all industries.



Source: Hemis/Alamy Stock Photo

The LEGO company began in 1932, in a small shop located in Billund, Denmark. Carpenter Ole Kirk Christiansen sold wooden toys, stepladders, and ironing boards with his son Godtfred. Two years later, the pair named their business LEGO, short for the Danish words *leg* *godt*, which translate to “play well.” During the next several years, LEGO expanded its product line to include wooden ducks, clothes hangers, and simple wooden bricks. It wasn’t until 1947, when LEGO purchased a plastic injection-molding machine, that it began to mass produce plastic toys that served as the predecessor of the modern LEGO brick. In 1957, LEGO created the interlocking plastic brick, and the following year it introduced the stud-and-tube coupling mechanism that became the model for all future LEGO toys. LEGO bricks became wildly popular among customers, and the company began expanding worldwide in the early 1960s. In 1964 the company started selling sets, which included the parts and instructions to construct a particular model. Soon thereafter, theme sets from movies and books such as the *Harry Potter*, *Star Wars*, and *Jurassic Park* series became some of the most sought-after children’s toys in the world.

LEGO's growth and expansion slowed at the end of the 20th century. Birth rates had declined, and children were less interested in toys that didn't offer instant gratification. The many theme parks that LEGO opened around the world failed to turn a profit because of the company's unfamiliarity with the hospitality industry. LEGO began churning out increasingly complex and unique sets to draw in more customers, but sales failed to grow. The increased complexity of LEGO bricks also made production more complicated and inventory harder to manage. Major retailers ended up with large portions of inventory unsold, even during holiday seasons. In 1998, the company suffered its first financial loss, and by 2003, LEGO was on the verge of bankruptcy.

In 2004, Jorgen Knudstorp was promoted to CEO, only three years after arriving at the company. Knudstorp, who had previously worked at McKinsey & Company, began turning the company around and improving business processes, cutting costs, and better managing cash flow, which stabilized the company. To revive the popularity of LEGO toys, Knudstorp focused heavily on innovation and emphasized market and consumer research. Knudstorp believed that in order to rekindle the emotional connection between customers and LEGO toys, LEGO had to deeply understand each customer's desires and behavior.

LEGO's shift toward basing decisions on extensive research reduced complexity in production and ensured the success of its product releases. In 2011, the company launched the LEGO Friends line, an effort to attract more girls to the brand. The company's market research led to the insight that girls preferred to use their LEGO sets for roleplay, whereas boys enjoyed strong narratives and backstories, such as those offered by the Ninjago and Legends of Chima sets. Both girls and boys enjoyed the building aspect of LEGOs. The LEGO Friends line offered more sets and locations like shopping malls, juice bars, and creative labs, so girls could use their figurines to roleplay. The line caught on strongly in markets worldwide, including China, Germany, and the United States.

LEGO also established the Future Lab, a secretive research and development team that is responsible for creating some of its most

innovative and successful toy lines ever. Future Lab teams are made up of industrial designers, programmers, marketers, and even master builders, who brainstorm to generate modern products. During an annual one-week field trip to Barcelona, Future Lab teams extensively brainstorm and produce prototypes from the bins of bricks, animation software, and professional-quality digital cameras available. The most successful prototypes generated are pursued back in Denmark, where viable ideas are launched into production. LEGO toy lines created by the Future Lab include LEGO Mindstorms, a robotics platform created in partnership with MIT; LEGO Fusion, an augmented-reality application; and LEGO Architecture, collections that model the world's most famous buildings.

In 2017, LEGO surpassed rival Mattel to become the biggest toy manufacturer in the world. Though LEGO has enjoyed great financial success since its all-time low in 2003, company studies have indicated that kids spend less and less time playing with physical toys every year. In an increasingly digital age, LEGO must continue researching its customers and experimenting with innovative product lines to stay at the top of the toy industry.<sup>39</sup>

## Questions

1. How does LEGO manage to constantly reinvent its business?
  2. What role did marketing research play in LEGO's market success?
  3. What differentiates LEGO from its competitors? Is LEGO's competitive advantage sustainable?
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