

10.1: Marketing Information Systems

Learning Objectives

1. Describe the components of a marketing information system and each component's purpose.
2. Explain the situations in which marketing research should be used versus market intelligence.
3. Describe the limitations of market intelligence and its ethical boundaries.
4. Explain when marketing research should and should not be used.

A certain amount of marketing information is being gathered all the time by companies as they engage in their daily operations. When a sale is made and recorded, this is marketing information that's being gathered. When a sales representative records the shipping preferences of a customer in a firm's customer relationship management (CRM) system, this is also marketing information that's being collected. When a firm gets a customer complaint and records it, this too is information that should be put to use. All this data can be used to generate consumer insight. However, truly understanding customers involves not just collecting quantitative data (numbers) related to them but qualitative data, such as comments about what they think.

Recall from Chapter 3 that Joy Mead is an associate director of marketing with Procter & Gamble. Listen to this clip to hear Mead talk about the research techniques and methods Procter & Gamble uses to develop consumer insight. You will learn that the company isn't just interested in what consumers want now but also years in the future.

The trick is integrating all the information you collect so it can be used by as many people as possible in your organization to make good decisions. Unfortunately, in many organizations, information isn't shared very well among departments. Even within departments, it can be a problem. For example, one group in a marketing department might research a problem related to a brand, uncover certain findings that would be useful to other brand managers, but never communicate them.

A marketing information system (MIS) is a way to manage the vast amount of information firms have on hand—information marketing professionals and managers need to make good decisions. Marketing information systems range from paper-based systems to very sophisticated computer systems. Ideally, however, a marketing information system should include the following components:

- A system for recording internally generated data and reports
- A system for collecting market intelligence on an ongoing basis
- Marketing analytics software to help managers with their decision making
- A system for recording marketing research information

Internally Generated Data and Reports

As we explained, an organization generates and records a lot of information as part of its daily business operations, including sales and accounting data, and data on inventory levels, back orders, customer returns, and complaints. Firms are also constantly gathering information related to their Web sites, such as clickstream data. Clickstream data is data generated about the number of people who visit a Web site and its various pages, how long they dwell there, and what they buy or don't buy. Companies use clickstream data in all kinds of ways. They use it to monitor the overall traffic of visitors that a site gets, to see which areas of the site people aren't visiting and explore why, and to automatically offer visitors products and promotions by virtue of their browsing patterns. Software can be used to automatically tally the vast amounts of clickstream data gathered from Web sites and generate reports for managers based on that information. Netflix recently awarded a \$1 million prize to a group of scientists to plow through Web data generated by millions of Netflix users so as to improve Netflix's predictions of what users would like to rent (Baker, 2009). (That's an interesting way to conduct marketing research, don't you think?)

Being able to access clickstream data and other internally generated information quickly can give a company's decision makers a competitive edge. Remember our discussion in Chapter 9 about how Walmart got a leg up on Target after 9/11? Walmart's inventory information was updated by the minute (the retailer's huge computing center rivals the Pentagon's, incidentally); Target's was only updated daily. When Walmart's managers noticed American flags began selling rapidly immediately following the terrorist attacks on 9/11, the company quickly ordered as many flags as possible from various vendors—leaving none for Target.

Click on the following link to watch a fascinating documentary about how Walmart, the world's most powerful retailer, operates: www.hulu.com/watch/103756/cnb...ls-the-new-age-of-walmart.

Many companies make a certain amount of internal data available to their employees, managers, vendors, and trusted partners via intranets. An intranet looks like the Web and operates like it, but only an organization's employees have access to the information. So, for example, instead of a brand manager asking someone in accounting to run a report on the sales of a particular product, the brand manager could look on her firm's intranet for the information.

However, big companies with multiple products, business units, and databases purchased and installed in different places and at different times often have such vast amounts of information that they can't post it all on an intranet. Consequently, getting hold of the right information can be hard. The information could be right under your nose and you might not know it. Meet people like Gary Pool: Pool works for BNSF Railway and is one of BNSF's "go-to" employees when it comes to gathering marketing data. Pool knows how to access different databases and write computer programs to extract the right information from the right places at BNSF, a process known as data mining. Combining data into one location is called data warehousing, and makes Pool's analysis easier. He then captures the information and displays it in dashboards, screens on the computer that make the data easily understood so that managers can detect marketing trends. While a dashboard may display a piece of information, such as the number of carloads sold in West Virginia, the manager can click on the number and get more detail.



Figure 10.2: Gary Pool is an expert at data mining—hunting up information for decision makers at BNSF Railway. And no, he doesn't wear a headlamp. Nor does he wear a pocket protector! Pool's title: Manager, Marketing Systems Support & Marketing Decision Support & Planning. Michael Kappel – [Metra BNSF Railway 149](#) – CC BY-NC 2.0.

Analytics Software

Increasingly, companies are purchasing analytics software to help them pull and make sense of internally generated information. Analytics software allows managers who are not computer experts to gather all kinds of different information from a company's databases—information not produced in reports regularly generated by the company. The software incorporates regression models, linear programming, and other statistical methods to help managers answer "what if" types of questions. For example, "If we spend 10 percent more of our advertising on TV ads instead of magazine ads, what effect will it have on sales?" Oracle Corporation's Crystal Ball is one brand of analytical software.

The camping, hunting, fishing, and hiking retailer Cabela's has managed to refine its marketing efforts considerably using analytics software developed by the software maker SAS. "Our statisticians in the past spent 75 percent of their time just trying to manage data. Now they have more time for analyzing the data with SAS, and we have become more flexible in the marketplace," says Corey Bergstrom, director of marketing research and analysis for Cabela's. "That is just priceless" (Zarello, 2009).

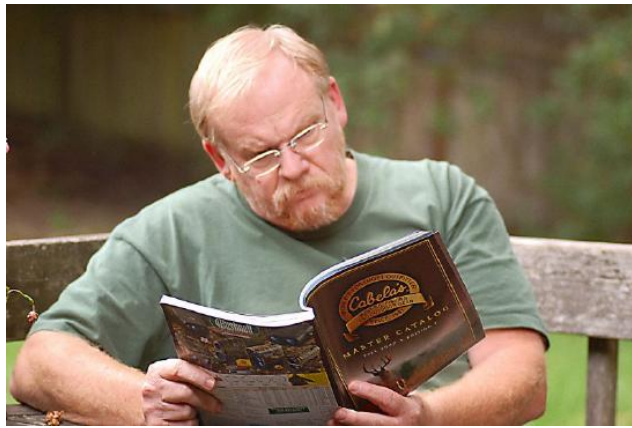


Figure 10.3: Cabela's' analytics software has helped the outdoor sporting retailer reach the right customers with the right catalogs..
Echo9er – Cabela's – CC BY-NC-SA 2.0

The company uses the software to help analyze sales transactions, market research, and demographic data associated with its large database of customers. It combines the information with Web browsing data to gain a better understanding of the individual customers marketing channel preferences as well as other marketing decisions. For example, does the customer prefer Cabela's' one-hundred-page catalogs or the seventeen-hundred-page catalogs? The software has helped Cabela's employees understand these relationships and make high-impact data-driven marketing decisions (Zarello, 2009).

Market Intelligence

A good internal reporting system can tell a manager what happened inside his firm. But what about what's going on *outside* the firm? What is the business environment like? Are credit-lending terms loose or tight, and how will they affect what you and your customers are able to buy or not buy? How will rising fuel prices and alternate energy sources affect your firm and your products? Do changes such as these present business obstacles or opportunities? Moreover, what are your competitors up to?

Not gathering market intelligence leaves a company vulnerable. Remember Encyclopedia Britannica, the market leader in print encyclopedia business for literally centuries? Encyclopedia Britannica didn't see the digital age coming and nearly went out of business as a result. (Suffice it to say, you can now access Encyclopedia Britannica online.) By contrast, when fuel prices hit an all-time high in 2008, unlike other passenger airline companies, Southwest Airlines was prepared. Southwest had anticipated the problem, and early on locked in contracts to buy fuel for its planes at much lower prices. Other airlines weren't as prepared and lost money because their fuel expenses skyrocketed. Meanwhile, Southwest Airlines managed to eke out a profit. Collecting market intelligence can also help a company generate ideas or product concepts that can then be tested by conducting market research.

Gathering market intelligence involves a number of activities, including scanning newspapers, trade magazines, and economic data produced by the government to find out about trends and what the competition is doing. In big companies, personnel in a firm's marketing department are primarily responsible for their firm's market intelligence and making sure it gets conveyed to decision makers. Some companies subscribe to news service companies that regularly provide them with this information. LexisNexis is one such company. It provides companies with news about business and legal developments that could affect their operations. Other companies subscribe to mystery shopping services, companies that shop a client and/or competitors and report on service practices and service performance. Let's now examine some of the sources of information you can look at to gather market intelligence.

Search Engines and Corporate Web Sites

An obvious way to gain market intelligence is by examining your competitors' Web sites as well as doing basic searches with search engines like Google. If you want to find out what the press is writing about your company, your competitors, or any other topic you're interested in, you can sign up to receive free alerts via e-mail by going to Google Alerts at <http://www.google.com/alerts>. Suppose you want to monitor what people are saying about you or your company on blogs, the comment areas of Web sites, and social networks such as Facebook and Twitter. You can do so by going to a site like WhosTalkin.com, typing a topic or company name into the search bar, and voilà! All the good (and bad) things people have remarked about the company or topic turn up. What a great way to seek out the shortcomings of your competitors. It's also a good way to spot talent. For example, designers are using search engines like WhosTalkin.com to search the blogs of children and teens who are "fashion forward" and then involve them in designing new products.

WhosTalkin.com and Radian6 (a similar company) also provide companies with sentiment analysis. Sentiment analysis is a method of examining content in blogs, tweets, and other online media (other than news media) such as Facebook posts to determine what people are thinking at any given time. Some companies use sentiment analysis to determine how the market is reacting to a new product. The Centers for Disease Control (CDC) uses sentiment analysis to track the progress of flu; as people post or tweet how sick they are, the CDC can determine where the flu is increasing or decreasing.



Figure 10.4: Type a company's name (or anything else you want) into the search bar and see what comes up. (Note: It takes a little while for all of the results to show up.). Source: <http://www.whostalkin.com>.

Publications

The *Economist*, the *Wall Street Journal*, *Forbes*, *Fortune*, *BusinessWeek*, the *McKinsey Report*, *Sales and Marketing Management*, and the *Financial Times* are good publications to read to learn about general business trends. All of them discuss current trends, regulations, and consumer issues that are relevant for organizations doing business in the domestic and global marketplace. All of the publications are online as well, although you might have to pay a subscription fee to look at some of the content. If your firm is operating in a global market, you might be interested to know that some of these publications have Asian, European, and Middle Eastern editions.

Other publications provide information about marketplace trends and activities in specific industries. *Consumer Goods and Technology* provides information consumer packaged-goods firms want to know. Likewise, *Progressive Grocer* provides information on issues important to grocery stores. *Information Week* provides information relevant to people and businesses working in the area of technology. *World Trade* provides information about issues relevant to organizations shipping and receiving goods from other countries. *Innovation: America's Journal of Technology Commercialization* provides information about innovative products that are about to hit the marketplace.

Trade Shows and Associations

Trade shows are another way companies learn about what their competitors are doing. (If you are a marketing professional working a trade show for your company, you will want to visit all of your competitors' booths and see what they have to offer relative to what you have to offer.) And, of course, every field has a trade association that collects and disseminates information about trends, breakthroughs, new technology, new processes, and challenges in that particular industry. The American Marketing Association, Food Marketing Institute, Outdoor Industry Association, Semiconductor Industry Association, Trade Promotion Management Association, and Travel Industry Association provide their member companies with a wealth of information and often deliver them daily updates on industry happenings via e-mail.

Salespeople

A company's salespeople provide a vital source of market intelligence. Suppose one of your products is selling poorly. Will you initially look to newspapers and magazines to figure out why? Will you consult a trade association? Probably not. You will first want to talk to your firm's salespeople to get their "take" on the problem.

Salespeople are the eyes and ears of their organizations. Perhaps more than anyone else, they know how products are faring in the marketplace, what the competition is doing, and what customers are looking for.

A system for recording this information is crucial, which explains why so many companies have invested in customer relationship management (CRM) systems. Some companies circulate lists so their employees have a better idea of the market intelligence they

might be looking for. Textbook publishers are an example. They let their sales representatives know the types of books they want to publish and encourage their representatives to look for good potential textbook authors among the professors they sell to.

Suppliers and Industry Experts

Your suppliers can provide you with a wealth of information. Good suppliers know which companies are moving a lot of inventory. And oftentimes they have an idea why. In many instances, they will tell you, if the information you're looking for is general enough so they don't have to divulge any information that's confidential or that would be unethical to reveal—an issue we'll talk more about later in the book. Befriending an expert in your industry, along with business journalists and writers, can be helpful, too. Often these people are “in the know” because they get invited to review products (Gardner, 2009).

Customers

Lastly, when it comes to market intelligence don't neglect observing how customers are behaving. They can provide many clues, some of which you will be challenged to respond to. For example, during the latest economic downturn, many wholesalers and retailers noticed consumers began buying smaller amounts of goods—just what they needed to get by during the week. Seeing this trend, and realizing that they couldn't pass along higher costs to customers (because of, say, higher fuel prices), a number of consumer-goods manufacturers “shrank” their products slightly rather than raise prices. You have perhaps noticed that some of the products you buy got smaller—but not cheaper.

Can Market Intelligence Be Taken Too Far?

Can market intelligence be taken too far? The answer is yes. In 2001, Procter & Gamble admitted it had engaged in “dumpster diving” by sifting through a competitors' garbage to find out about its hair care products. Although the practice isn't necessarily illegal, it cast P&G in a negative light. Likewise, British Airways received a lot of negative press in the 1990s after it came to light that the company had hacked into Virgin Atlantic Airways' computer system¹.

Gathering corporate information illegally or unethically is referred to as industrial espionage. Industrial espionage is not uncommon. Sometimes companies hire professional spies to gather information about their competitors and their trade secrets or even bug their phones. Former and current employees can also reveal a company's trade secret either deliberately or unwittingly. Microsoft recently sued a former employee it believed had divulged trade secrets to its competitors². It's been reported that for years professional spies bugged Air France's first-class seats to listen in on executives' conversations (Anderson, 1995).



Video Clip: Spying at Work—Espionage: Who, How, Why, and How to Stop It. To learn more about the hazards of industrial espionage and how it's done, check out this YouTube video. <https://youtu.be/kooznkqQ1GQ>



Figure 10.5: Don't get caught doing this—unless you work for the natural-cosmetics maker Burt's Bees. To get across to employees the amount of material being wasted, Burt's Bees had its employees put on hazmat suits and sort through garbage for a couple of weeks. (No, employees weren't engaging in industrial espionage.) The recycling opportunities they spotted as part of the exercise ended up saving the natural-cosmetics maker \$25,000 annually (Nemes, 2009). Halturg Skanser – [dumpster diving leap](#) – CC BY-NC 2.0.

To develop standards of conduct and create respect for marketing professionals who gather market intelligence, the Society of Competitive Intelligence Professionals has developed a code of ethics. It is as follows:

- To continually strive to increase the recognition and respect of the profession.
- To comply with all applicable laws, domestic and international.
- To accurately disclose all relevant information, including one's identity and organization, prior to all interviews.
- To avoid conflicts of interest in fulfilling one's duties.
- To provide honest and realistic recommendations and conclusions in the execution of one's duties.
- To promote this code of ethics within one's company, with third-party contractors and within the entire profession.
- To faithfully adhere to and abide by one's company policies, objectives and guidelines³.

Marketing Research

Marketing research is what a company has to resort to if it can't answer a question by using any of the types of information we have discussed so far—market intelligence, internal company data, or analytics software applied to data. As we have explained, marketing research is generally used to answer specific questions. The name you should give your new product is an example. Unless your company has previously done some specific research on product names—what consumers think of them, good or bad—you're probably not going to find the answer to that question in your internal company data. Also, unlike internal data, which is generated on a regular basis, marketing research is not ongoing. Marketing research is done on an as-needed or project basis. If an organization decides that it needs to conduct marketing research, it can either conduct marketing research itself or hire a marketing research firm to do it.

So when exactly is marketing research needed? Keep in mind marketing research can be expensive. You therefore have to weigh the costs of the research against the benefits. What questions will the research answer, and will knowing the answer result in the firm earning or saving more money than the research costs?

Marketing research can also take time. If a quick decision is needed for a pressing problem, it might not be possible to do the research. Lastly, sometimes the answer is obvious, so there is no point in conducting the research. If one of your competitors comes up with a new offering and consumers are clamoring to get it, you certainly don't need to undertake a research study to see if such a product would survive in the marketplace.

Alex J. Caffarini, the president and founder of the marketing research firm Analysights, believes there are a number of other reasons companies mistakenly do marketing research. Caffarini's explanations (shown in parentheses) about why a company's executives sometimes make bad decisions are somewhat humorous. Read through them:

- *"We've always done this research."* (The research has taken on a life of its own; this particular project has continued for years and nobody questioned whether it was still relevant.)
- *"Everyone's doing this research."* (Their competitors are doing it, and they're afraid they'll lose competitive advantage if they don't; yet no one asks what value the research is creating.)

- “*The findings are nice to know.*” (Great—spend a lot of money to create a wealth of useless information. If the information is nice to know, but you can’t do anything with it, you’re wasting money.)
- “*If our strategy fails, having done the research will show that we made our best educated guess.*” (They’re covering their butts. If things go wrong, they can blame the findings, or the researcher.)
- “*We need to study the problem thoroughly before we decide on a course of action.*” (They’re afraid of making a tough decision. Conducting marketing research is a good way to delay the inevitable. In the meantime, the problem gets bigger, or the window of opportunity closes.)
- “*The research will show that our latest ad campaign was effective.*” (They’re using marketing research to justify past decisions. Rarely should marketing research be done after the fact) (Caffarini).

Is Marketing Research Always Correct?

To be sure, marketing research can help companies avoid making mistakes. Take Tim Hortons, a popular coffee chain in Canada, which has been expanding in the United States and internationally. Hortons recently opened some self-serve kiosks in Ireland, but the service was a flop. Why? Because cars in Ireland don’t have cup holders. Would marketing research have helped? Probably. So would a little bit of market intelligence. It would have been easy for an observer to see that trying to drive a car and hold a cup of hot coffee at the same time is difficult.

That said, we don’t want to leave you with the idea that marketing research is infallible. As we indicated at the beginning of the chapter, the process isn’t foolproof. In fact, marketing research studies have rejected a lot of good ideas. The idea for telephone answering machines was initially rejected following marketing research. So was the hit sitcom *Seinfeld*, a show that in 2002 *TV Guide* named the number-one television program of all time. Even the best companies, like Coca-Cola, have made mistakes in marketing research that have led to huge flops. In the next section of this chapter, we’ll discuss the steps related to conducting marketing research. As you will learn, many things can go wrong along the way that can affect the results of research and the conclusions drawn from it.

Key Takeaway

Many marketing problems and opportunities can be solved by gathering information from a company’s daily operations and analyzing it. Market intelligence involves gathering information on a regular, ongoing basis to stay in touch with what’s happening in the marketplace. Marketing research is what a company has to resort to if it can’t answer a question by using market intelligence, internal company data, or analytical software. Marketing research is not infallible, however.

Review Questions

1. Why do companies gather market intelligence and conduct marketing research?
2. What activities are part of market intelligence gathering?
3. How do marketing professionals know if they have crossed a line in terms of gathering marketing intelligence?
4. How does the time frame for conducting marketing intelligence differ from the time frame in which marketing research data is gathered?

¹“P&G Admits to Dumpster Diving,” *PRWatch.org*, August 31, 2001, <http://www.prwatch.org/node/663> (accessed December 14, 2009).

²“Microsoft Suit Alleges Ex-Worker Stole Trade Secrets,” *CNET*, January 30, 2009, <https://www.cnet.com/news/microsoft-suit-alleges-ex-worker-stole-trade-secrets/> (accessed December 14, 2009).

³“SCIP Code of Ethics for CI Professionals,” Society of Competitive Intelligence Professionals, www.scip.org/About/content.cf...ItemNumber=504 (accessed December 14, 2009).

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