chaptertwelve

Creating Value Through Productivity and Quality

Cisco Systems Leads the Way in e-Productivity

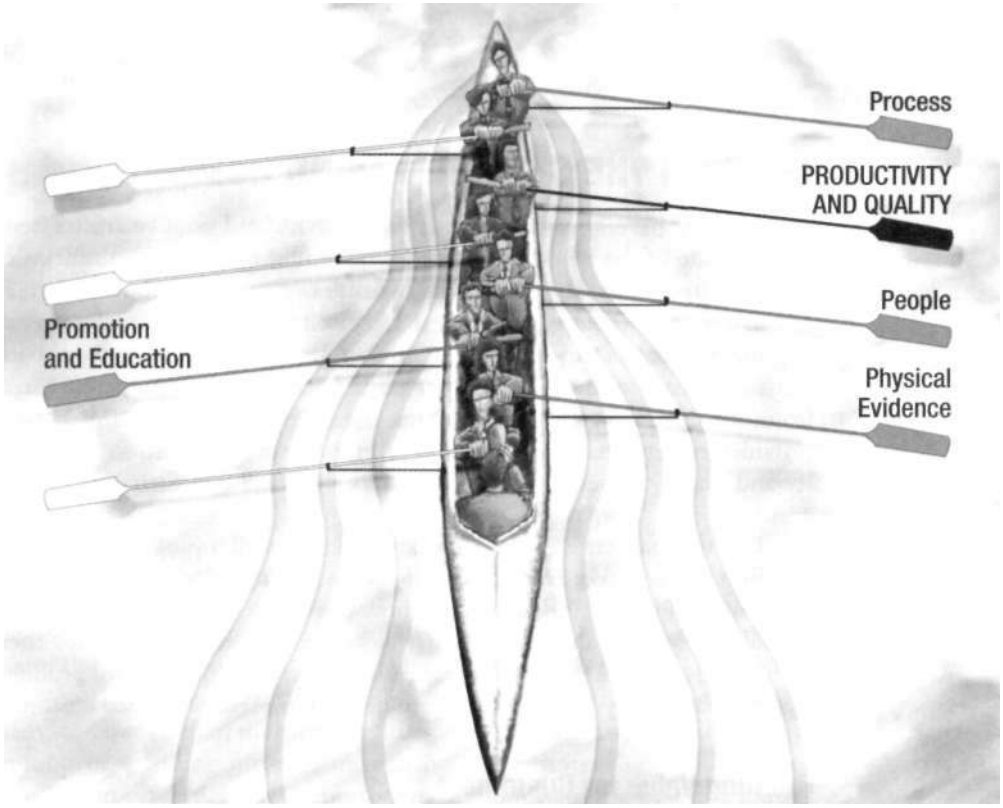
Cisco Systems is the world's leader in electronic commerce, with over $5 billion in sales coming from its Web site alone in 2000.[1] The company supplies networking solutions that connect people, computing devices, and computer networks, allowing individuals and companies to access and transfer information without regard to differences in time, place, or type of computer system. In 2000, it held close to 80 percent of the market for products that keep the Internet functioning, such as routers, switching devices, relays, and Internet software.

Cisco's highly technical products require large amounts of customer support, which is seen as critical to maintaining service quality. But the company soon realized that it wouldn't be able to hire enough engineers to service its rapidly growing customer base. Doug Allred, Cisco's vice president for Consumer Advocacy, decided to implement a call-tracking system so that the company could monitor each technical support call that came in, find an answer to the customer's question in Cisco's own database of known problems and solutions, and track the call to completion. What was unusual about Cisco's approach at the time of implementation was that the system was designed to function as both a telephone-based call center and a virtual call center via the Web. Customers could have their problems posted in a section of the Cisco Web site that was accessible to other customers of the firm.

When someone posted problems or questions, Cisco's technical support staff started working on solutions—and much to the company's amazement, so did other customers! Whoever came up with an answer first posted it on the Web site, and there were often other helpful suggestions relating to the problem. As soon as information flowed into the database, the customer who had posed the original question received an e-mail notification.

In short, Allred had found a workable solution to the firm's technical support engineer shortage by letting its customers (all of whom had been trained and certified by Cisco) help each other out. The company has also created a knowledge base of frequently asked questions (FAQs) that enables customers to find answers to the most common problems without talking to anyone in the company. Cisco's customers are happy to help themselves and others on the Web site, and the sense of community that is created online enhances the perceived quality of the technical support service.

As a result of these productivity initiatives, Cisco found that it didn't need to expand its call center staffing, even though business was growing rapidly. In fact, the company actually documented a 70 percent reduction in calls received, resulting in a savings of $10 million a month (computed at an average of $200 a call). The number of technical support staff assigned to answering calls dropped from 1,000 to 700. Details of each new call and its solution now go to a technical writer to be edited and entered into the Cisco Knowledge Base, thus helping to minimize the number of future calls.



O Learning Objectives

After reading this chapter, you should be able to

=^ define what is meant by productivity and quality in a service context

=^> understand the relationship between customer expectations, service quality and customer satisfaction

=£> explain the gaps model of service quality

=^> describe the techniques for identifying the root cause of specific service quality problems

=£> identify the components of a service quality information system

=£> discuss productivity and quality measurement techniques

MINDING THE SERVICE Ps AND Qs

As you may have already noticed, productivity and quality are treated jointly in this book as one of the 8Ps of integrated service management. This reflects our belief—and that of others—that they are often two sides of the same coin. In fact, FedEx has even employed an internal slogan, Q = P.[2] If the two issues are totally divorced, companies risk introducing productivity efforts that will annoy customers or embarking on quality initiatives that will result in higher costs without increasing revenues. As you can see from our discussion of Cisco Systems, the strategic integration of both dimensions can provide greater value for customers and service providers. In fact, a focus on productivity and quality as perceived by customers is critical to a firm's long-term financial success.

In this chapter, we address a particularly challenging question from our service decision framework, ***How can we balance productivity and quality'?*** This leads us to examine such issues as determining how to reduce operating costs without spoiling the appeal of a service; identifying what customers expect in return for their money, time, and effort; specifying appropriate measures of service quality and productivity; and clarifying what quality improvements are needed to meet or exceed customer expectations.

Creating Value for Customers

What is the fundamental role of marketing? Many theorists argue that it is to create customer value.[4] The search for value often begins with market research, seeking to identify the benefits sought by customers or prospects for a given product category and the costs that they are willing to incur to obtain these benefits. Perceived value is highly personal and may vary widely from one customer to another.[3] In fact, variations in desired benefits often form the basis for segmentation.

Productivity and quality were historically seen as issues for operations managers. Thus, companies focused internally on making process "improvements" that were not necessarily linked to customers' service priorities. However, continuing efforts to understand and improve quality led back to the customer—and to the recognition that quality should be customer defined. Quality enhancements that add no value for customers are a poor allocation of corporate resources.

A key theme running through this book is that marketing cannot operate in isolation from other functional areas in a service environment. Tasks that might be assigned only to operations in a goods-producing company need to include marketers in a service organization, because of customer exposure to service processes. Making these processes more efficient doesn't necessarily result in a better quality experience or improved benefits for customers. Getting service employees to work faster may sometimes be welcomed by customers, but at other times it may make them feel rushed and unwanted. So marketing, operations, and human resources managers all need to work together on designing front-stage jobs and processes. Similarly, service marketing strategies designed to improve customer satisfaction should be carefully reviewed with operations and human resources managers to minimize the risk that such strategies will prove costly and internally disruptive.

Marketing and Quality

Marketing's interest in service quality is obvious when you think about it: Poor quality places a firm at a competitive disadvantage. If customers perceive quality as unsatisfactory, they may be quick to take their business elsewhere. From a marketing standpoint, a key issue is whether or not customers notice differences in quality between competing

suppliers. Brad Gale puts it succinctly when he says "value is simply quality, however the *customer* defines it, offered at the right price." Improving quality from the customer's perspective pays off: Data from the PIMS (Profit Impact of Market Strategy) show that a perceived quality advantage leads to higher corporate profits.[7]

Service quality issues are not confined to traditional service industries. It has become increasingly difficult for industrial companies to establish a competitive advantage by offering higher quality products. Many manufacturing firms are working to improve the quality of the supplementary services that support their products—like consultation, financing, shipping and delivery, installation, training of operators, repair and maintenance, trouble-shooting, and billing—in order to keep or gain profitable positions within their industries.

Marketing and Productivity

Why is improving productivity important to marketers? One reason is that it helps keep costs down. Lower costs mean either higher profits or the ability to hold down prices. The company with the lowest costs in an industry has the option to position itself as the low-price leader—usually a significant advantage among price-sensitive market segments. Firms with lower costs than their competitors also generate higher margins, giving them the option of spending more on marketing and customer service activities. They may also be able to offer higher margins to attract and reward the best distributors and intermediaries. These companies are also better able to invest in new service technologies. A second reason that productivity improvements are important to marketers is that they are often associated with faster operating procedures. To the extent that speed of service is valued by customers, it becomes a competitive advantage.

Efforts to improve productivity often affect customers. It's the marketer's responsibility to ensure that negative impacts are avoided or minimized and that new procedures are carefully presented to customers. When the impact is a positive one, the improvements can be promoted as a new advantage. Finally, as we'll see, there are opportunities for marketers themselves to help improve productivity by involving customers actively in service production and delivery.

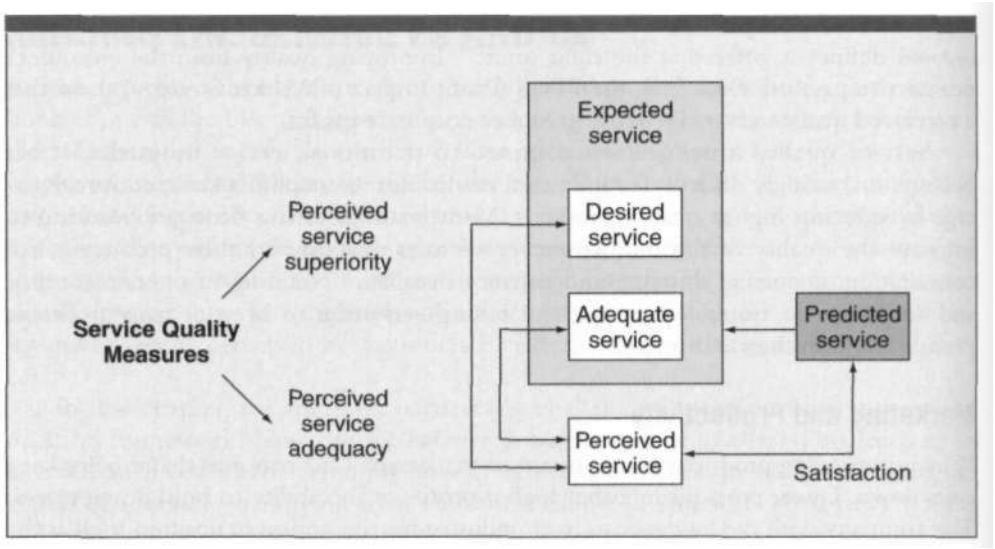
UNDERSTANDING SERVICE QUALITY

As described in Chapter 4, after making a purchase, customers compare the service they expected to get with what they actually receive. They decide how satisfied they are with service delivery and outcomes, and they also make judgments about quality. Although service quality and customer satisfaction are related concepts, they are not exactly the same thing. Many researchers believe that customers' perceptions about quality are based on long-term, cognitive evaluations of a firm's service delivery, whereas customer satisfaction is a short-term emotional reaction to a specific service experience.[9]

Following a service encounter, customers may evaluate their levels of satisfaction or dissatisfaction and may use this information to update their perceptions of service quality. They must, of course, experience a service before they can be satisfied or dissatisfied with the outcome. But beliefs about quality don't necessarily reflect personal experience. People often make quality judgments about services they have never consumed, basing these evaluations on comments by acquaintances or on advertising messages. Figure 12.1 shows the relationship between expectations, customer satisfaction, and service quality.

Managing a business to optimize customer satisfaction is a strategic imperative at many firms, since the cost of mediocre service quality may be as high as 40 percent of revenues in some service industries.[10] Most companies realize that by improving per-

FIGURE 12.1
The Relationship Among Expectations, Customer Satisfaction, and Perceived Service Quality



Source: Adapted from Valarie A. Zeithaml, Leonard L. Berry, and A. Parasuraman, "The Nature and Determinants of Customer Expectations of Service," *Journal of the Academy of Marketing Science* 21, no. 1 (1993): 1-12.

formance on service attributes, customer satisfaction should increase. This should, in turn, lead to greater customer retention and improved profitability. For example, the relative similarity of the products offered by different banks has led to an increased emphasis on service quality in the highly competitive retail banking sector. A large telephone survey of bank customers identified poor customer service quality as the most frequent reason for account closures. Analysis of the study results and bank branch profits indicated that customer service quality was a major determinant of how well individual branches performed.[11]

The relationship between service quality and profitability is typically not easy to track for a variety of reasons. Service quality benefits accumulate over time rather than being experienced in the short term. This makes them difficult to measure using traditional market research techniques. Another complicating factor is that many variables contribute to corporate profits (including pricing, distribution, advertising, and competition); it's hard to isolate the effects these individual factors have on the bottom line. And finally, just spending money on service quality initiatives doesn't necessarily lead to increased profits. Service companies must identify the right quality initiatives and execute them effectively.[12]

satisfaction-profit chain: a strategic framework that links performance on service attributes to customer satisfaction, then to customer retention, and finally to profits.

A strategic framework known as the **satisfaction-profit chain** can help managers identify the links between attribute performance, customer satisfaction, customer retention, and profits. However, the relationships between the different links in the chain are not necessarily linear. Sophisticated analysis may be needed to pinpoint the priorities for improvements; for instance, investments designed to avoid negative outcomes on specific attributes may be as important as actions to increase positive performance on others.[13]

Dimensions of Service Quality

Research has identified five broad dimensions of service quality:[14]

- *Reliability.* Is the company dependable in providing service as promised, over time?
- *TangiblesiWhat* do the service provider's physical facilities,Web site, equipment, personnel, and communication materials look like?

- *Responsiveness:* Are the firm's employees helpful and able to provide prompt service?
- *Assurance:* Are service employees knowledgeable, polite, competent, and trustworthy?
- *Empathy:* Does the service firm provide caring, personalized attention?

Of these five dimensions, reliability has consistently proven to be the most important factor in customers'judgments of service quality. Reliability improvements lie at the heart of service quality enhancement efforts because unreliable service implies broken promises on the attributes that customers care about. If the core service is not performed reliably, customers may assume that the company is incompetent and may switch to another service provider. For a perspective on the dimensions of service quality in online environments, see the box "Service Quality Goes Online."

It isn't easy for many types of service businesses to maintain high levels of reliability day-in and day-out. When customers enter a service factory and are involved in service production, they experience mistakes directly—often before a firm has an opportunity to correct them. In labor-intensive services, employees add a large degree of variability to the service production process. It's difficult for service providers to control such variations, since each employee is somewhat different from the others in personality, skills, and attitudes. Moreover, the same employee can provide radically different service from one customer to the next—or the same customer over time—depending on situational factors like customer behavior, task complexity, and the employee's physical and mental state.

Service Quality Goes Online

Do customers use the same dimensions to evaluate service quality in electronic transactions as they do during more traditional service experiences? A recent study, based on data collected from focus group interviews, explored the criteria customers use to assess electronic service quality (e-SQ). The results indicate that some of the quality dimensions discussed earlier (reliability, responsiveness, and assurance) are important in both online and offline settings. However, some other dimensions are unique to customers' evaluations of e-SQ, including ease of navigation, flexibility, efficiency, site aesthetics, and price knowledge. All of these are technology related except price knowledge, which reflects customers' desire for information about what their total online shopping charges are before they hit the "submit" button to complete their purchases.

Why is e-SQ so important? While many marketers believe that price is the biggest concern for Internet customers, survey results indicate that poor service quality is the reason that most people leave Web sites. Specific failings include the lack of an easy-to-use search engine to help with site navigation; memory-intensive graphics that take too long to download; slow and confusing online ordering processes (especially when advertising promises that it will be easy); and hidden charges.

A good way to understand user requirements in e-commerce is to establish continuous processes (like Web surveys or chat rooms) to monitor customers' responses to their sites, if research shows that customer preferences vary by target market and the type of products being sold, the supplier may want to offer alternative sites for different segments. But in general, Web pages should be designed to load quickly while still conveying rich information. To close communication gaps, companies must plan realistically for adequate site functionality, promise only what their sites can deliver, and ensure that all aspects of fulfillment meet promised levels of performance.

Source: Mary B. Young, "What Customers Want Online," *Insights from MSI* (Cambridge, MA: Marketing Science Institute, Fall 2000), 5-6; Valarie A. ZeithamI, A. Parasuraman, and Arvind Malhotra, "A Conceptual Framework for Understanding e-Service Quality: Implications for Future Research and Managerial Practice" (Cambridge MA: Marketing Science Institute, 2001).

Although mistakes occur in every organization, many companies strive to minimize errors to provide greater service reliability for their customers. Leonard Berry describes how the Hard Rock Cafe Orlando addresses service reliability:

> *Performing the service right the first time is a bedrock value at Hard Rock Cafe Orlando, the immensely successful restaurant chain and merchandise retailer. Hard Rock Cafe emphasizes "double checking" to minimize errors. The message of double checking is: Perform the service carefully to avoid mistakes. If a mistake does occur, correct it before it reaches the customer. Hard Rock Cafe implements double checking through two "extra" people in the kitchen. One is stationed inside the kitchen and the other at the kitchen counter. The inside person reviews everything that is going on, looking for signs of undercooked or overcooked meals, wilting lettuce, or any below-standard product or performance. The counter person, or "expediter," checks each prepared plate against the order ticket before the food is delivered to the table .^*

Reliability is an outcome measure because customers judge it *after* the service experience: Either the service was delivered as promised or it wasn't. The other four dimensions of quality—tangibles (physical evidence), responsiveness, assurance, and empathy—are process dimensions because they can be evaluated by customers *during* service delivery. These dimensions provide companies with the opportunity to delight customers by exceeding their expectations during interactions with employees and the service environment. As shown in Figure 12.1, exceeding customers' desired levels of expectations leads to positive perceptions of service quality.

Quality Gaps

A service performance that surprises and delights customers by falling above their desired service levels will be seen as superior in quality. If service delivery falls within their zone of tolerance, they will feel that it's adequate. But if perceived quality falls below the adequate service level expected by customers, a discrepancy—or quality gap—has occurred between the service provider's performance and customer expectations.

Why do quality failures occur? Gaps can occur at seven different points in the design, production, and delivery of services, as shown in Figure 12.2.[18] The service gap is the most critical, because it involves the customer's overall assessment of the service, comparing what was expected against perceptions of what was received.The ultimate goal in improving service quality is to narrow this gap as much as possible. To do so, service providers may have to reduce or close the six other gaps.The seven potential gaps in service quality are:

1. **The knowledge gap**—the difference between what service providers believe customers expect and customers' actual needs and expectations
2. **The standards gap**—the difference between managements perceptions of customer expectations and the quality standards established for service delivery
3. **The delivery gap**—the difference between specified delivery standards and the service provider's actual performance
4. **The internal communications gap**—the difference between what the company's advertising and sales personnel think are the product's features, performance, and service quality level and what the company is actually able to deliver
5. **The perceptions gap**—the difference between what is actually delivered and what customers perceive they have received (because they are unable to accurately evaluate service quality)
6. **The interpretation gap**—the difference between what a service provider's communication efforts actually promise and what a customer thinks was promised by these communications
7. **The service gap**—the difference between what customers expect to receive and their perceptions of the service that is actually delivered

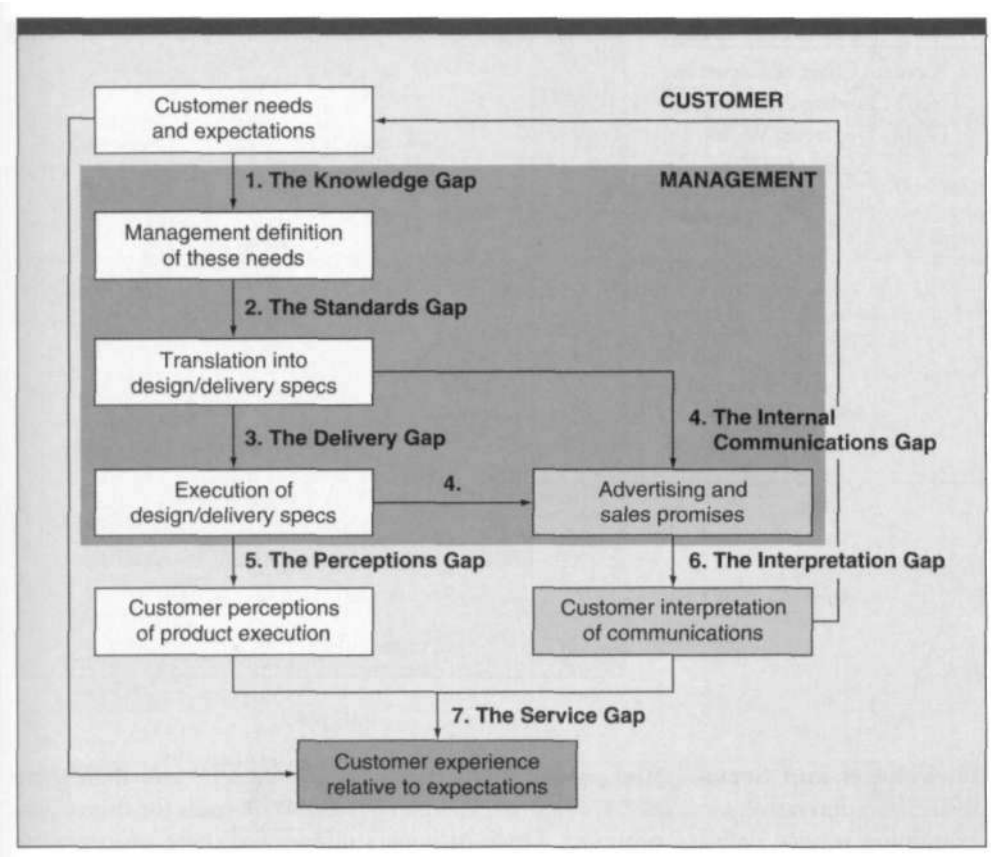


FIGURE 12.2
Seven Quality Gaps Leading to Customer Dissatisfaction

Source: Adapted from Christopher Lovelock, *Product Plus* (New York: McGraw-Hill, 1994), 112.

The presence of any one of these seven quality gaps can lead to a disappointing outcome that damages relationships with customers. Avoiding service gaps in every service encounter will help a firm improve its reputation for quality service. Although careful planning and monitoring will help reduce the likelihood that one of these gaps will occur, when customers indicate that service outcomes are disappointing, it's important to identify and eliminate the gap(s) that lead to this result.

A major problem in some firms is that *service standards* are defined by operations managers who have no knowledge of customer needs and expectations. Hence, it's vital that marketers be involved in the task of designing service standards and measuring performance against them.

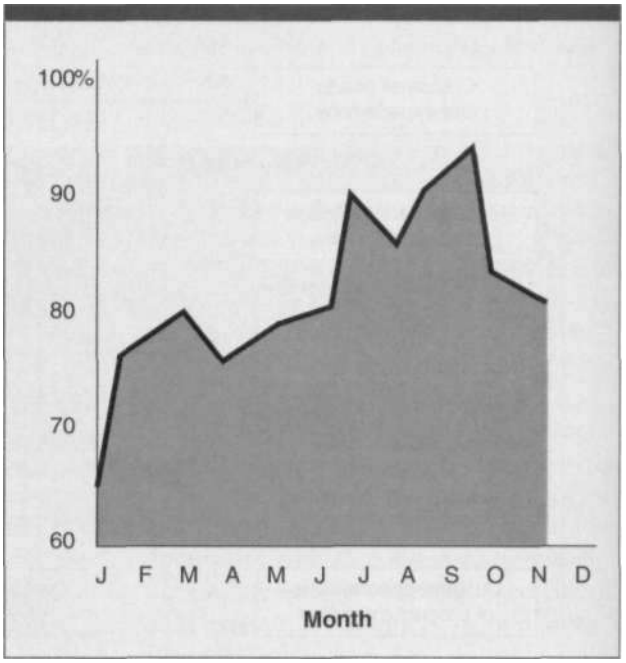
Learning from Service Failures

Although every firm should have contingency plans for service recovery, there's no substitute for doing it right the first time. Recovery procedures shouldn't be seen as a substitute for improved service reliability.[19] When a problem is caused by controllable, internal forces, there's no excuse for allowing it to happen again. Recurring service failures lower service quality and reduce productivity as time and money are wasted on correcting mistakes.

With prevention in mind, let's look briefly at some simple but powerful tools for monitoring quality and determining the root causes of service failures. Among the many tools available to quality improvement specialists, the following ones are particularly helpful for managers in identifying service failures and designing effective recovery strategies.

FIGURE 12.3

Control Chart of Departure Delays Showing Percentage of Flights Departing Within 15 Minutes of Schedule



Flowcharts and Service Blueprints Flowcharts (see Chapter 3) and their more formalized derivative, service blueprints (see Chapter 7), are useful tools for thoroughly examining service delivery processes. Once managers understand these processes, it's easier for them to identify potential failure points, which are weak links in the chain. Knowing what can go wrong, and where, is an important first step in improving productivity and preventing service quality problems.

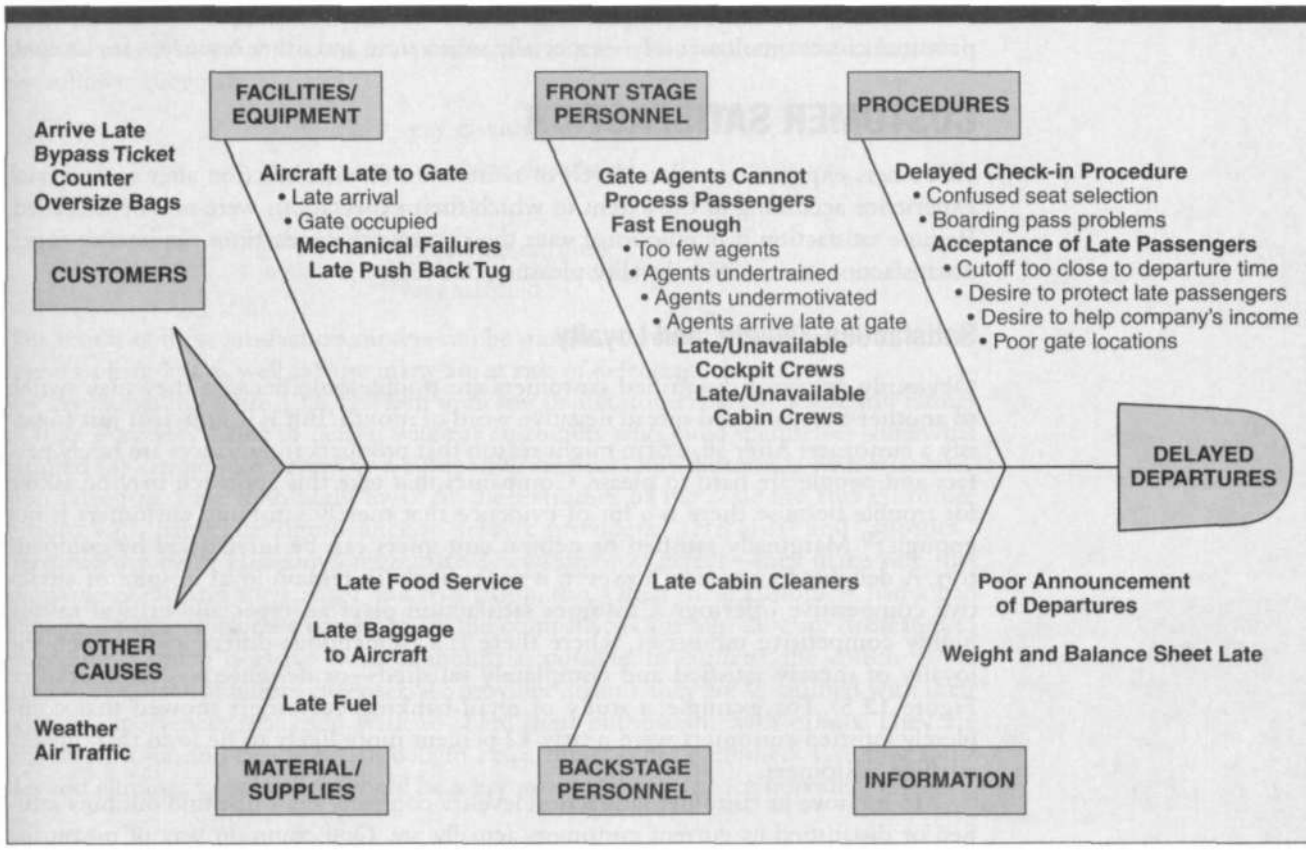
control charts: charts that graph quantitative changes in service performance on a specific variable relative to a predefined standard.

Control Charts It's frequently said that "you cannot manage what you do not measure." **Control charts** offer a simple method for graphing performance over time against specific quality criteria. Because the charts are visual, trends are easily identified. Figure 12.3 shows an airline's performance on the important criterion of on-time departures. The results in this example suggest that management would do well to investigate the situation, because aircraft departure performance is erratic and unsatisfactory.

fishbone diagram: a chart-based technique that relates specific service problems to different categories of underlying causes (also known as a cause-and-effect chart).

Cause-and-Effect Charts The Japanese/quality expert Kaoru Ishikawa created the **fishbone diagram** for use in manufacturing firms. To produce a fishbone diagram (also known as a cause-and-effect chart), groups of managers and employees brainstorm factors that might be creating a specific problem. In a traditional version of this diagram, the resulting factors are then categorized into one of five groupings—equipment, people, materials, procedures, and other. It's important to recognize that failures are often sequential, with one problem leading to another in a different category. Figure 12.4 displays no less than 27 possible reasons for late departures of a passenger aircraft!

Notice that the fishbone diagram shown in Figure 12.4 includes eight groupings rather than just the five mentioned above. The extra categories are designed to provide additional information for service firms. For example, the People category has been changed to Front-Stage Personnel and Backstage Personnel. This highlights the fact that



Source: Christopher Lovelock, *Product Plus* (New York: McGraw-Hill, 1994), 218.

FIGURE 12.4
Cause-and-Effect Chart for Airline Departure Delays

front-stage service problems are often experienced directly by customers, whereas back-stage failures tend to show up more indirectly. Information has been split from Procedures because many service problems result from information-related failures. For example, inadequate information about flight departures may lead passengers to arrive late at the gate.

The expanded fishbone diagram also includes a new category—Customers—to acknowledge their increased involvement in service production and delivery, because customers can also be the cause of problems for a service business. As we've discussed before, customers of high-contact services are often heavily involved in front-stage operations. If they don't play their roles correctly, they may reduce service productivity and cause quality problems for themselves and other customers. For instance, an aircraft that seats hundreds of passengers can be delayed if a single traveler tries to board at the last minute with an oversized bag, which then has to be loaded into the cargo hold.

Pareto Analysis The technique known as **Pareto analysis** (named after the Italian economist who first developed it) is useful in identifying the principal causes of observed outcomes. Application of this technique often highlights a phenomenon known as the "80/20 rule," showing that approximately 80 percent of the value of one variable (in this instance, the number of service failures) is accounted for by only 20 percent of the causal variables (i.e., the number of possible causes). In the airline example above, 88 percent of the company's late-departing flights were caused by only four (15 percent) of all the possible causes—late passengers, late push back tug, late fuel,

Pareto analysis: an analytical procedure to identify what proportion of problem events is caused by each of several different factors.

and late weight and balance sheet. So, focus on these four factors rather than tackling all potential causes simultaneously—especially when time and other resources are limited.

CUSTOMER SATISFACTION

Customers experience various levels of satisfaction or dissatisfaction after each service experience according to the extent to which their expectations were met or exceeded. Because satisfaction is an emotional state, their postpurchase reactions can involve anger, dissatisfaction, irritation, neutrality, pleasure, or delight.

Satisfaction, Delight, and Loyalty

Obviously, angry or dissatisfied customers are troublesome because they may switch to another company and spread negative word of mouth. But is it sufficient just to satisfy a customer? After all, a firm might reason that products and services are rarely perfect and people are hard to please. Companies that take this approach may be asking for trouble because there is a lot of evidence that merely satisfying customers is not enough.[20] Marginally satisfied or neutral customers can be lured away by competitors. A delighted customer, however, is more likely to remain loyal in spite of attractive competitive offerings. Customer satisfaction plays an especially critical role in highly competitive industries, where there is a tremendous difference between the loyalty of merely satisfied and completely satisfied—or delighted—customers (see Figure 12.5). For example, a study of retail banking customers showed that completely satisfied customers were nearly 42 percent more likely to be loyal than merely satisfied customers.

To improve its customer satisfaction levels, a company must first find out how satisfied or dissatisfied its current customers actually are. One common way of measuring satisfaction is to ask customers first to identify what factors are important in satisfying

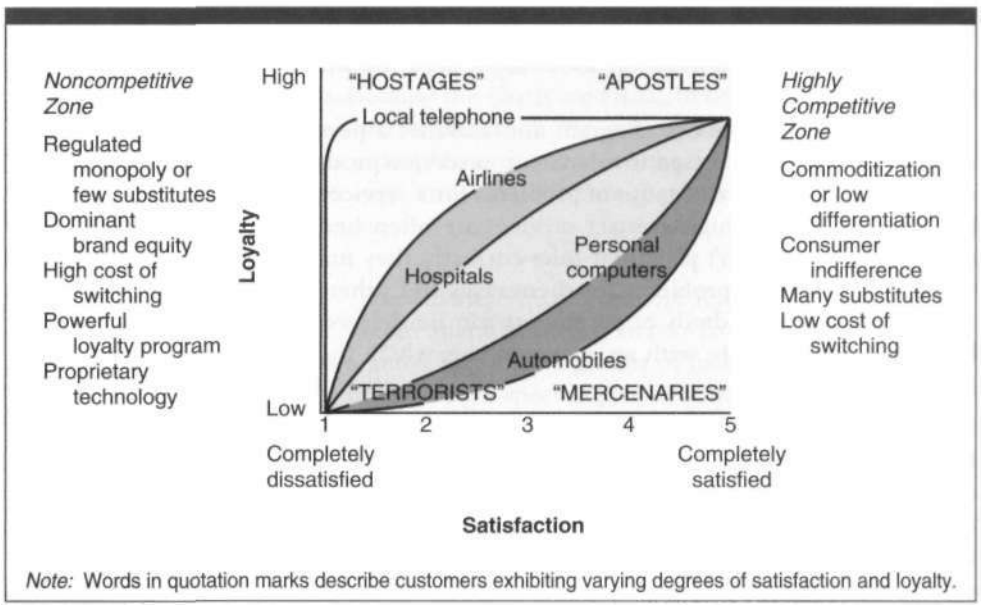


FIGURE 12.5
How the Competitive Environment Affects the Satisfaction-Loyalty Relationship

Source: Adapted and reprinted by permission of the *Harvard Business Review.* An exhibit from "Why Satisfied Customers Defect," by Thomas O. Jones and W. Earl Sasser, Jr., November-December 1995, 91. Copyright © 1995 by the President and Fellows of Harvard College; all rights reserved.

them and then to evaluate the performance of a service provider and its competitors on these factors. Many firms use a five-point scale to measure customer satisfaction, with the following format:

1 = very dissatisfied
2 = somewhat dissatisfied
3 = neutral
4 = somewhat satisfied
5 = very satisfied

The results of these satisfaction surveys can be used to estimate the number of loyal customers a firm has, as well as how many are at risk of defecting.

As shown in Figure 12.6, research indicates that customers with satisfaction ratings of 0 to 3 are very likely to defect, whereas customers who rated themselves somewhat satisfied (4) can be lured away by a competing service. Only customers with a satisfaction rating of 5 are absolutely loyal. At the extremes of the scale are two customer groups with particular significance to service providers: "terrorists" and "apostles." Terrorists are every company's nightmare. They don't just defect—they make sure that everyone else shares their anger and frustration, too. Often these customers had a bad experience that was never corrected by the company; as a result, they are dedicated to spreading as much negative word of mouth as possible. In contrast, the apostle is the kind of customer of whom every service provider dreams; they are so satisfied with their service experiences that they want to share their enthusiasm with others. They are extremely loyal, and their obvious delight helps attract other customers. Creating apostles and eliminating terrorists should be a key goal for every service provider.[21]

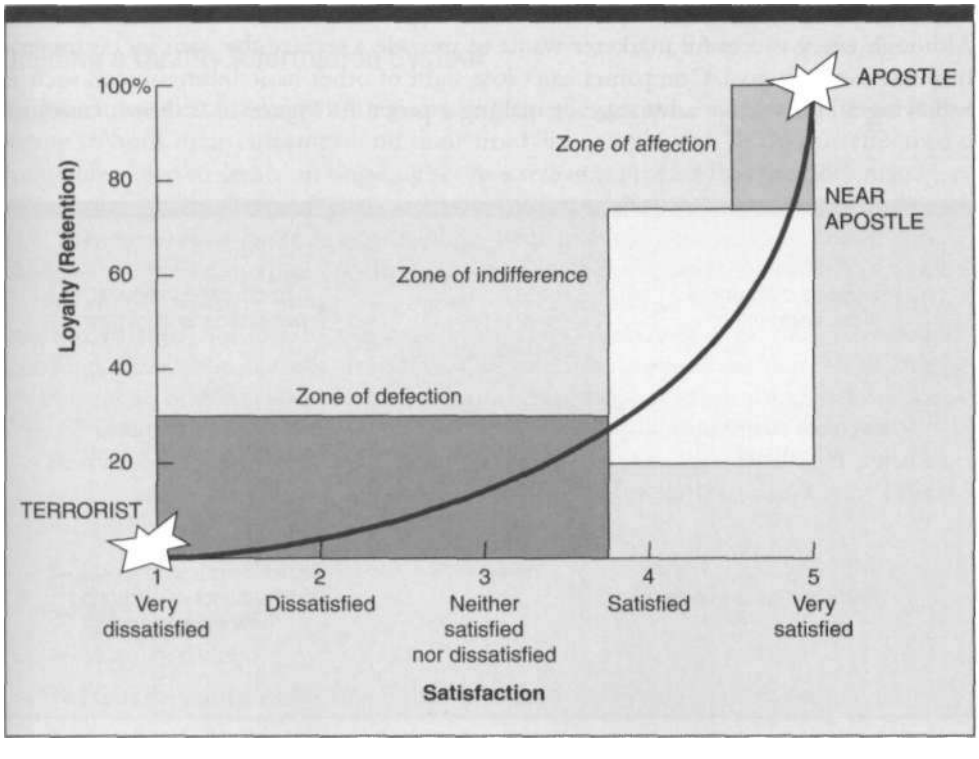


FIGURE 12.6
"Apostles" and "Terrorists" on the Satisfaction-Loyalty Curve

Source: James L. Heskett, W. Earl Sasser, Jr., and Leonard A. Schlesinger, *The Service Profit Chain* (New York: Free Press, 1997), 87.

Using Customer Satisfaction Information

Once a company has gathered satisfaction data from its customers, the next step is to decide on the most appropriate strategies for increasing satisfaction levels. If most of the satisfaction ratings fall in the 2—3 range, there is probably a problem with the firm's delivery of the core service—the basic package of benefits that customers expect every business in an industry to be able to provide. We can describe them as the "do-or-die" elements of service. However, they may change as customer expectations increase, competitive offerings improve, or new competitors enter the market. The solution for problems here is to make sure that a firm's basic product meets customer-defined industry standards.

Neutral or satisfied customers (the 3s and 4s) are probably happy with the core service but would like to have a consistent set of supplementary services that make the basic product more effective or easier to use. Service providers with a high proportion of neutral and satisfied customers need to increase their range of supporting services and provide responsive service recovery processes so that customers don't slide into the dissatisfied category when problems do occur. Formalized service recovery programs can help supplement the bundle of benefits provided by the core product and decrease the liklihood that customers will defect to competitors' services.[22]

Completely satisfied customers believe that a company thoroughly understands and addresses their own personal preferences, needs, expectations, and problems. Service providers whose customer satisfaction ratings are 5s have obviously listened carefully to their customers and, as a result, have been able to incorporate a significant number of innovative elements into their core offerings. In time, competitors may copy the innovator, so a firm that wishes to remain a leader must continually listen to customers and find new ways to delight them.

Benefits of Customer Satisfaction Management

Although every successful marketer wants to provide a service that satisfies customers, this isn't the only goal. Companies can't lose sight of other basic business goals such as achieving a competitive advantage or making a profit. As Figure 12.7 shows, customer

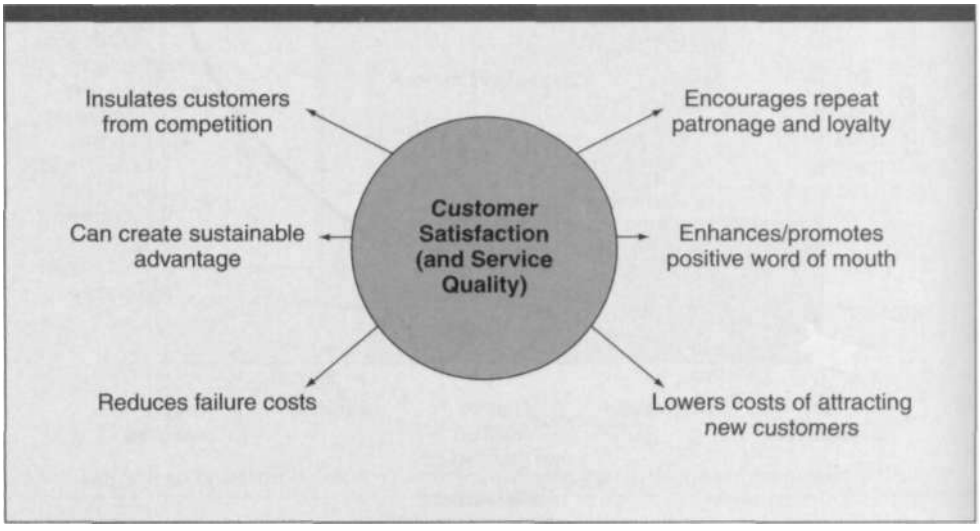


FIGURE 12.7
Benefits of Customer Satisfaction and Service Quality

Source: C. H. Lovelock, P. G. Patterson, and R. H. Walker, *Services Marketing: Australia and New Zealand* (Sydney: Prentice Hall, 1998), 119.

satisfaction provides many benefits for a firm, and higher levels of customer satisfaction lead to greater customer loyalty. In the long run, it is more profitable to keep good customers than to constantly attract and develop new customers to replace the ones who leave. Highly satisfied customers spread positive word of mouth and in effect become a walking, talking advertisement for a firm, which lowers the cost of attracting new customers. This is particularly important for professional service providers (like dentists, lawyers, engineers, or accountants), because reputation and word of mouth are key information sources for new clients.[23]

High levels of customer satisfaction are an insurance policy against something going wrong. Long-term customers tend to be more forgiving in these situations, because an occasional bad experience will be offset by previous positive ones, and satisfied customers are less susceptible to competitors' offerings. It's no wonder that many companies place so much emphasis on customer satisfaction, given its positive relationship to customer retention, market share, and profits.

Return on Quality

Many strategies to improve customer satisfaction are costly to design and implement. Thoughtful managers ask: Which quality improvement efforts will provide the greatest financial returns? This investment-oriented approach is called **return on quality** (ROQ).[24] A company's research and complaint data may show that some quality defects are much more important to customers than others, and some defects cost more money to fix. Moreover, not all quality improvement efforts will necessarily pay for themselves. An ROQ approach can help a firm set priorities based on investing resources to fix those defects that will subsequently yield the best financial returns.The objective should be to undertake a systematic method for rank-ordering quality improvement efforts according to their anticipated financial return.

return on quality: the financial return obtained from investing in service quality improvements.

Building a Quality Information System

Organizations that are known for providing excellent service quality are good at listening to both their customers and their front-line employees. To do this effectively, companies need to create an ongoing service research process that provides managers with useful, timely data. Information from service quality surveys—including how a firm compares with its competitors—can help managers understand the effects of changes in service quality and/or price on the firm's market share.[25] As Leonard Berry says in *On Great Service*, "Companies need to build a **service quality information system,** not just do a study. Conducting a service quality study is analogous to taking a snapshot. Deeper insight and an understanding of the pattern of change come from an ongoing series of snapshots taken of various subject matter from many angles."[26]

service quality information system: an ongoing service research process that provides timely, useful data to managers about customer satisfaction, expectations, and perceptions of quality.

Berry recommends that ongoing research should be conducted through a portfolio of research techniques that make up a firm's service quality information system. Possible approaches include:

- Post-transaction surveys
- Total market surveys
- Mystery shopping
- New, declining, and former customer surveys
- Focus groups
- Employee field reporting

post-transaction surveys: techniques to measure customer satisfaction and perceptions of service quality while a specific service experience is still fresh in the customer s mind.

Post-Transaction Surveys This approach is useful when the goal is to measure customer satisfaction and perceptions about service experiences while they are still fresh in the customer's mind. **Post-transaction surveys** are conducted right after a service encounter or within a few days.[27] (See the boxed story about Toys R! Us.) Many service businesses, including hotels and restaurants, invite customers to complete questionnaires on site (or to mail them back later). Some companies even offer incentives. For example, the Olive Garden restaurant sometimes gives customers a discount on their next meal if they complete the customer satisfaction survey that is provided with every bill. Data of this nature may also be collected electronically. For instance, customers at Einstein's Bagels can use a touch-activated screen that is located at the entrance to record their impressions of service quality.

total market surveys; periodic measurements of customers' overall evaluations of service quality based on accumulated experience over a period of time.

Total Market Surveys The purpose of **total market surveys** is to measure customers' overall evaluations of service quality. Because such evaluations reflect customers' accumulated experience over time (and because this type of data collection is costly), these surveys are administered less frequently than transactional surveys.The information collected should include customers' service expectations and perceptions, the relative importance of different service dimensions, and customers' intentions about repurchasing and making positive recommendations to others. Companies can also use total market surveys to measure competitors' service quality. But they need to sample both customers and noncustomers to get an accurate picture of their competitive position.

ToysR Us Finds Out Why Customers Aren't Playing There Anymore

For most of the 1990s, Toys'R'Us was the undisputed leader among retailers of traditional toys. But in 1998, Wal-Mart surpassed Toys R'Us in market share in this competitive market. Worried Toys R'Us executives quickly implemented a new strategy—labeled "C3"—aimed at increasing sales, profits, and "most importantly, winning back mom." C3 (which stands for "customer friendly, cost effective, and concept for a long-term position") is based on ongoing post-transaction surveys that poll customers within 48 hours after they have completed a Toys "R 'Us transaction.

Using household information compiled from the national daily transaction data stored in its centralized data warehouse, the company identifies approximately 60,000 customers a year who are then contacted by telephone to discuss their shopping experiences at Toys'R' Us. These customers are also asked about any recent service encounters thay have had with competitors like Wal-Mart, K-Mart, and Target. Data are collected in two different formats: numerical ratings in response to specific questions, and quantitative responses that are recorded verbatim.

Responses to the initial post-transaction surveys highlighted some of the reasons that customers were defecting to competitors' stores. Many respondents rated their customer satisfaction levels as "poor," stating that Toys'R Us sales clerks were rude and unhelpful. Another complaint was that many popular toys were frequently out-of-stock. The survey data also allowed Toys' R Us to analyze the relationship between customer satisfaction and profitability. Not surprisingly, customers who were delighted with their shopping experiences were significantly more profitable over time than those who were merely satisfied.

Armed with these results, Toys RUs has implemented an aggressive campaign to make all of its stores more customer-friendly. The number of out-of-stock incidents has been significantly reduced. Customer satisfaction is measured at each store every month through post-transaction surveys and mystery shopping. Toys RUs stores that rank highly receive incentives, while those that don't get additional customer service training.

Source: Seth Mendieson, "Fixing a Broken Toy," *Discount Merchandiser,* February 1999; Ellen Simon, "Toys'R'Us Talking Up New Concept: Friendly Help is Key to Chain's Effort to Regain No. 1 Status," *Newark Star Ledger,* 16 June, 1999; Ellen Simon, "Toys'R'Us Tries to Make Shopping a 'Magic' Moment," *Newark Star Ledger,* 22 June, 1999; and information presented by Timothy Keiningham at the 9th Annual Frontiers in Services Conference, Nashville, TN, September 2000.

Some marketers use a tool called SERVQUAL to gather this type of information (see the box,"The SERVQUAL Scale").[28] Customers are asked to complete a series of scales that measure their expectations of a particular company on a wide array of specific service characteristics, including aspects of the five quality dimensions. They then record their perceptions of actual service performance on these same characteristics. When perceived performance ratings are lower than expectations, it is a sign of poor quality; the reverse indicates good quality.

SERVQUAL: a standardized scale that measures expectations and perceptions about critical quality dimensions.

The SERVQUAL Scale

The SERVQUAL scale includes five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Within each dimension are several items measured on a seven-point scale from strongly agree to strongly disagree, for a total of 21 items.

SERVQUAL Questions

Note: For actual survey respondents, instructions are also included and each statement is accompanied by a seven-point scale ranging from "strongly agree = 7" to "strongly disagree = 1." Only the end points of the scale are labeled—there are no words above the numbers 2 through 6.

TANGIBLES

>• Excellent banks *[refer to cable TV companies, hospitals, or the appropriate service business throughout the questionnaire]* will have modern-looking equipment.

>- The physical facilities at excellent banks will be visually appealing.

>- Employees at excellent banks will be neat in appearance.

*- Materials associated with the service (like brochures or statements) will be visually appealing in an excellent bank.

RELIABILITY

>• When excellent banks promise to do something by a certain time, they will do so.

»- When customers have a problem, excellent banks will show a sincere interest in solving it.

*- Excellent banks will perform the service right the first time.

5* Excellent banks will provide their services at the time they promise to do so.

>• Excellent banks will insist on error-free records.

RESPONSIVENESS

>• Employees of excellent banks will tell customers exactly when service will be performed.

>- Employees of excellent banks will give prompt service to customers.

>> Employees of excellent banks will always be willing to help customers.

>- Employees of excellent banks will never be too busy to respond to customer requests.

ASSURANCE

>• The behavior of employees of excellent banks will instill confidence in customers.

>- Customers of excellent banks will feel safe in their transactions.

>- Employees of excellent banks will be consistently courteous with customers.

>• Employees of excellent banks will have the knowledge to answer customer questions.

EMPATHY

>- Excellent banks will give customers individual attention.

>• Excellent banks will have operating hours convenient to all their customers.

>• Excellent banks will have employees who give customers personal attention.

>- The employees of excellent banks will understand the specific needs of their customers.

mystery shopping: a research technique that employs individuals posing as ordinary customers in order to obtain feedback on the service environment and customer-employee interactions.

Mystery Shopping Companies sometimes hire individuals to pose as ordinary customers and provide feedback about their service experiences. During their unannounced visits to service sites, these "mystery shoppers" observe both the physical environment and the interactions between customers and employees. One advantage of **mystery shopping** is that it provides feedback on the performance of individual service employees. This information can be used to reward exceptional performance, as well as to identify employees who could benefit from additional training or coaching. Companies like Wells Fargo Bank, Au Bon Pain, and Safeway use mystery shopping regularly to improve their customer service.

Service providers should be sensitive to employees' feelings when using this approach, because employees often feel that mystery shoppers are spying on them. Tips for making mystery shopping successful include letting employees know what criteria they are being judged on and evaluating service quality over a series of visits rather than by a single encounter. For example, Au Bon Pain posts its criteria for service quality in each store, along with a list of employees who have received outstanding scores from mystery shoppers.

New, Declining, and Former Customer Surveys New customers can provide information about what attracted them to a specific service provider, including the impact of the firm's reputation and its marketing efforts. Surveys that monitor declining patronage can identify the reasons and may predict future customer defections. Asking former customers why they left can provide helpful—if sobering—information about areas where a firm's service quality is deficient. Surveys of new, declining, or former customers are easiest to do in businesses where customers use the service on a fairly regular basis and sales transactions are recorded at the individual customer level. For instance, Safeway supermarkets conduct this type of research by using their Safeway Club "membership" cards to track each customer's purchases electronically over time. Since customer-contact data are collected when customers apply for the card, Safeway can easily contact new, declining, or former customers. The company also uses the membership card to reward loyal customers with special discounts and cash rebates.

focus groups: groups of customers sharing certain common characteristics who are convened by researchers for in-depth, moderator-led discussions on specific topics.

Focus Groups This research approach involves interviewing a group of representative customers about a specific topic or issue. The discussions, which typically last a couple of hours, are led by trained moderators who keep the participants—typically six to ten in number—on task. Convening a **focus group** is a useful way to get in-depth information about service problems and identify possible solutions. This procedure can also be used to determine what criteria customers use to evaluate service quality, to obtain feedback on a new service concept or a proposed marketing program, or to find out how customers actually use different types of services. However, the resulting information should not be projected onto an entire market segment without additional quantitative research.

While most focus group research involves face-to-face conversations with participants, a few companies have gone high-tech. For example, the cable network Nickelodeon conducts online focus groups with 8- to 12-year-old viewers to gather their reactions to its programming and marketing. The company says the electronic focus groups provide faster, cheaper data than traditional methods but warns that other market research techniques should also be used.[29]

Employee Field Reporting Whereas most service quality data are collected from customers, a firm's employees can also be a valuable source of qualitative information. Employee field reporting is a systematic method for finding out what employees learn from their interactions with customers and their direct observations of customer

behavior. Data can be collected from employees through written surveys, telephone interviews, or focus groups. Employees can also record critical incidents that occur during service encounters. For example, employees in a dentist's office can be asked to record patients' reactions to all aspects of the service, including the physical environment, new equipment, or personal interactions.

PRODUCTIVITY ISSUES FOR SERVICE FIRMS

As we mentioned at the beginning of this chapter, improving service quality for customers in cost-effective ways is a key challenge for any service business. Companies must try to increase productivity in ways that won't have a negative impact on customer satisfaction or perceived quality. But what is productivity? Simply defined, productivity measures how efficiently a company can transform **inputs** into **outputs.** Inputs vary according to the nature of the business but may include labor (both physical and intellectual), materials, energy, and capital (land, buildings, equipment, information systems, and financial assets). Service outputs are the final outcomes of the service delivery process as perceived and valued by customers. Improving productivity requires increasing the ratio of outputs to inputs.

inputs; all resources (labor, materials, energy, and capital) required to create service offerings.

outputs: the final outcomes of the service delivery process as perceived and valued by customers.

Measuring Service Productivity

The intangible nature of service performances often makes it difficult to measure the productivity of service industries. The measurement task is perhaps the most straightforward in possession-processing services because many are quasi-manufacturing organizations, performing routine tasks with easily measurable inputs and outputs that often include physical elements. Examples include quick-service garages, which change a car's oil and rotate its tires, or fast-food restaurants, which offer limited and simple menus. But the task is more complicated when the customer's vehicle has an engine problem, or when the restaurant in question is famous for its varied and exotic cuisine.

In a people-processing service like a hospital, we can look at the number of patients treated in the course of a year and at the hospital's census, or average bed occupancy. But how do we account for the different types of procedures performed—removal of cancerous tumors, treatment of diabetes, or setting of broken bones—and the almost inevitable variability between one patient and another? And how do we evaluate the difference in service outcomes? Some patients get better, some develop complications, and some never recover. There are relatively few standardized procedures in medicine that offer highly predictable outcomes.

Information-based services also pose measurement issues. How should we define the output of a bank or a consulting firm? And how does an architect's output compare to a lawyer's? Some lawyers like to boast about their billable hours. But what were they actually doing during those hours, and how do we measure their output as opposed to their fees? It's alleged that some lawyers strive to bill for more than 24 hours of work per day, but is that really an accurate indication of productivity?

Finally, measuring productivity is a challenge for mental stimulus services like education. Many universities are under pressure to document outputs, and they have been struggling with how to measure the hours professors spend preparing for class, interacting with students, providing service to the university and the community, and contributing to their professional fields. And how do colleges (or their graduates) quantify the value of a college degree? Or the value of a good professor versus a mediocre one?

Variability is a major problem in measuring service productivity. Unfortunately, traditional measures of service output tend to ignore variations in the quality of service delivered and its perceived value to customers. In freight transportation, for instance, a

Insights from Dilbert, by Scott Adams: Overemphasis on speed may result in curt and unfriendly service for customers.

ton-mile of output for freight that is delivered late is treated the same for productivity purposes as a similar shipment delivered on time.[30] Another approach, counting the number of customers served per unit of time, suffers from the same shortcoming. What happens when an increase in the speed with which customers are served is achieved at the expense of perceived quality? Suppose a hair stylist serves three customers per hour and finds she can increase her output to four by giving what is technically just as good a haircut but using a faster but noisier hair dryer, eliminating all conversation, and rushing through the process. Even if the haircut is identical in quality, her customers may rate the overall service experience less positively because it did not meet their expectations of an adequate (or desired) level of service on multiple dimensions.

Efficiency and Effectiveness in Service Productivity

Some researchers argue that productivity measures in a service context must incorporate both efficiency and effectiveness.[31] Efficiency describes the degree to which an activity generates a given quantity of outputs with a minimum consumption of inputs (or the largest possible outputs from a given level of inputs). It relates the output to the resources (input) used and is about doing things the right way. Effectiveness, by contrast, is concerned with a firm's ability to attain a goal or purpose. The implication for service managers is that they must measure the characteristics of service output with reference to the goals set by the organization, since effectiveness is about doing the right things.

From this perspective, we can say that service productivity measures the ability of a service organization to use its inputs for providing services with quality matching the expectations of customers and can be presented as follows:

$$\text{Service productivity} = \frac{\text{quantity and quality of output}}{\text{quantity and quality of input}}$$

Using quantitative measures of the volume of inputs and outputs (e.g., labor hours, number of hours service is available, number of customers or transactions, etc.) is complicated when there is a lot of variability in inputs and outputs. An alternative is to use monetary measures, such as turnover relative to the total monetary value of inputs. In order to link productivity to profitability, the monetary values of both input and output must be determined, thus emphasizing the value added of the service process.

Productivity and Customer Satisfaction

The "productive" hair stylist described earlier illustrates an important issue for service providers. Although many companies would like to increase both productivity (defined in volume terms) and quality (defined in satisfaction terms), the two are not always compatible. Managers may have to make trade-offs between quantity and quality, especially when customer satisfaction and willingness to pay depend on customized service provided directly by employees. High levels of productivity and customer satisfaction are most profitable—and most possible—for companies like mail-order firms,

clothing stores, and fast-food restaurants that provide a mixture of goods and services to customers in a fairly standardized way. For example, the Taco Bell restaurant chain has been very successful in making productivity improvements that both added to customer satisfaction and had an extremely positive impact on profitability.

However, for companies whose outputs are more intangible—like airlines, banks, and charter travel agencies—the greatest profits are associated with higher customer satisfaction and a relatively lower volume of output per employee. A study of the hotel industry showed that the value added (output revenues less input costs) rose significantly with an increasing number of employees. It's readily apparent that four-star and five-star hotels offer a much higher ratio of employees to customers than lower-rated hotels and are able to command much higher prices for their rooms. Thus, for more customized services, the primary focus should be on increasing customer satisfaction. Firms should make efficiency-based productivity improvements only if they are sure that the changes will not negatively affect customers' perceptions of service quality.

Many attempts to improve service productivity tend to center on efforts to eliminate waste and reduce labor costs. Cutbacks in front-stage staffing can mean either that the remaining employees have to work harder and faster or that there are insufficient personnel to serve customers promptly at busy times. Although employees may be able to work faster for a brief period of time, few can maintain a rapid pace for extended periods. They become exhausted, make mistakes, and treat customers in a disinterested way.Workers who are trying to do two or three things at once (e.g., serving a customer face to face while simultaneously answering the telephone and sorting papers) may do a poor job on each task. Excessive pressure to improve productivity breeds discontent and frustration among all employees. But it is especially difficult for customer-contact personnel, who are caught between trying to meet customer needs and attempting to achieve management's productivity goals.

Even successful firms like United Parcel Service (UPS) have experienced customer service declines because of the implementation of internal productivity improvement strategies that were not directly linked to customer priorities.

For example, UPS made an assumption that on-time delivery was the most important service quality feature for its customers.The company did time-and-motion studies to see how delivery processes could be made more efficient and pushed its workers to meet demanding delivery schedules. Much to its surprise, UPS discovered from its customer satisfaction surveys that customers actually wanted more interaction time with its drivers. After performing a return-on-quality analysis, the company designed a program to allow drivers to spend more time with customers by relaxing delivery schedules and hiring more drivers. Drivers received a small bonus for any sales leads they generated. Cost estimates for the first year were $4.2 million, which was quickly offset by over $10 million in additional revenues.[34]

Sometimes companies can use technology to streamline service processes in a way that reduces costs and satisfies customers. For example, cost cutting was a very important issue for Taco Bell because its strategy relied on providing customers with high-quality, low-priced fast food. The company's "value menu" pricing meant that profit margins were reduced. Cost reductions were mandatory, but what should be cut? Because improved customer service was an important part of the new strategy, Taco Bell could not easily improve productivity by decreasing its labor costs. Instead, it embarked on an approach called "K-minus" (K stands for kitchen). By using technology to reduce the labor intensity of food preparation, outsourcing some of the most time-intensive chores, and turning restaurant kitchens into strictly food assembly areas, Taco Bell was able to shrink the average kitchen size by 40 percent. Its restaurants moved from 70 percent kitchen and 30 percent dining to 70 percent dining and 30 percent kitchen, freeing both space and employees to serve customers. These dramatic changes significantly reduced operating costs, and customer waiting time decreased more than 70 percent.

Customer-Driven Approaches to Improving Productivity

In situations where customers are deeply involved in the service production process (most typical in people-processing services), operations managers should examine how customers' inputs can be made more productive. Marketing managers should be thinking about what marketing strategies can be employed to influence customers to behave in more productive ways.Two strategies, in particular, may be helpful: changing the timing of customer demand and involving customers more actively in the production process.

Changing the Timing of Customer Demand Managing demand in capacity-constrained service businesses is a recurring theme in this book. Customers often complain about crowding and congestion, reflecting time-of-day, seasonal, or other cyclical peaks in demand. During the off-peak periods in those same cycles, managers often worry that there are too few customers and that their facilities and staff are not fully productive. By shifting demand away from peaks, managers can make better use of their productive assets and provide better service.

However, some demand cannot easily be shifted without the cooperation of third parties like employers and schools, who control working hours and holiday schedules. To fill idle capacity during off-peak hours, marketers may need to target new market segments with different needs and schedules, rather than focusing exclusively on current segments. If the peaks and valleys of demand can be smoothed, using the tools and strategies we've discussed in earlier chapters, productivity will improve.

Involving Customers More in Production Customers who assume a more active role in service production and delivery can take over some labor tasks from the service organization. Benefits for both parties may result when customers perform self-service. Some technological innovations are designed to enable customers to perform tasks previously undertaken by service employees. For instance, many companies are trying to encourage customers to use a corporate Web site to obtain information and place

orders, rather than telephoning customer service staff directly. For such changes to succeed, Web sites must be made user-friendly and easy to "navigate" and customers must be convinced that it is safe to provide credit card information over the Internet. Some companies have offered promotional incentives (like a credit of air miles to a frequent flyer program or a discount on merchandise) to encourage customers to make an initial reservation or place an order on the Web.

Restaurants, which have traditionally had a high labor component and relatively low productivity, represent another service in which customers have been asked to do more of the work. We've become accustomed to self-service salad bars and buffets. Despite the reduction in personal service, this innovation has been positioned as a benefit that lets customers select the foods they want, without delay, in the quantities they desire.

Quality and productivity improvements often depend on customers' willingness to learn new procedures, follow instructions, and interact cooperatively with employees and other people. Customers who arrive at the service encounter with a set of preexisting norms, values, and role definitions may resist change. In fact, research results suggest that some customers may be more willing than others to serve themselves.

A large-scale study presented respondents with the choice of a do-it-yourself option versus traditional delivery systems at gas stations, banks, restaurants, hotels, airports, and travel services. A particular scenario was outlined for each service, since earlier interviews had determined that decisions to choose self-service options were very situation specific, depending on such factors as time of day, weather conditions, presence or absence of others in the party, and the perceived time and cost involved. The results showed that in each instance a sizable proportion of respondents would select the self-service option—even in the absence of time or monetary savings. When these inducements were added, the proportions choosing self-service increased. Further analysis showed an overlap for some respondents in terms of their self-service behaviors across different services. If respondents didn't pump their own fuel, for instance, they were less likely to use an ATM and more likely to prefer being served by a bank clerk.

Conclusion

Service providers can't afford to consider productivity separately from quality. If the two issues are totally divorced, operations managers may launch productivity efforts that will degrade the service received by customers, and marketing managers may introduce service quality programs that complicate operations, raise costs, and hurt profits. Successful firms base their efforts to improve quality on an understanding of customers' expectations relative to different quality dimensions and analysis of service quality gaps that can lead to dissatisfaction.When things go wrong, they seek the underlying causes and try to prevent a recurrence. Their efforts to innovate often center on new approaches that will enhance productivity and quality simultaneously.

Firms that succeed in providing high-quality service are good at listening to both their customers and their employees, especially those in direct contact with customers. They build information systems that use a variety of research techniques to measure customer satisfaction and the quality of service delivered. However, measuring productivity can be difficult because of the intangible nature of service performances. Unfortunately, many traditional measures of service outputs ignore variations in the quality of service delivered and its perceived value to customers.

Study Questions and Exercises

1. Define customer expectations and describe where they come from.
2. Discuss the three different levels of expectations. How are they related to a customer's zone of tolerance?
3. Explain the difference between service quality and customer satisfaction.
4. Identify the seven gaps that can occur in service quality. What do you think service marketers can do to prevent each of these gaps?
5. What are the five dimensions customers use in evaluating service quality?
6. Explain the elements of a service quality information system and give examples of each element.
7. How can firms learn from service failures?
8. Define productivity. Why is it hard to measure in services?
9. Why is productivity a more difficult issue for services than for many manufactured goods? Explain the relationship between productivity and quality.

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