

as an important way of keeping the management on its toes. If Skaggs showed up at a single store in Kansas City, Missouri, for example, the manager immediately contacted all the other managers in town to give them a "heads up" that Skaggs was in town. Too often owners can become isolated from their businesses. By being in the field, they gain a better understanding of the business and how to serve the customer. Quality Highlight 8-1 shows how Ritz-Carlton uses a gold standard to keep its managers in touch with its customers.

SERVQUAL

An important tool developed by Parasuraman, Zeithamel, and Berry for assessing services quality is **SERVQUAL**. These researchers developed this survey instrument for assessing quality along the five service quality dimensions discussed in Chapter 1. The SERVQUAL survey has been used by many firms and is an off-the-shelf approach that can be used in many services situations. The SERVQUAL instrument, a survey, has many advantages. Among these are

- It is accepted as a *standard* for assessing different dimensions of services quality.
- It has been shown to be *valid* for a number of service situations.
- It has been demonstrated to be *reliable*, meaning that different readers interpret the questions similarly.
- The instrument is *parsimonious* in that it has only 22 items. This means that it can be filled out quickly by customers and employees.
- Finally, it has a standardized analysis procedure to aid interpretation and results.

One of the benefits of statistical quality control (SQC) is that it is an accepted procedure for assessing process variability. One of the comforts of implementing SQC is knowing that many other firms have used this approach and benefited from it. Although the SERVQUAL survey is not as widely used as SQC, it is a standardized approach to gathering information about customer perceptions of service quality. As such, it provides a base, or a means, to get started in assessing customer perceptions of quality.

Expectations The SERVQUAL survey has two parts—**customer expectations** and **customer perceptions**. Before discussing SERVQUAL expectations, we should first discuss the reasons for assessing both expectations and perceptions.

Let's say that you desire to improve service quality along some dimension—either tangibles or reliability. The natural question is, "Which will create the *greater* improvement to the system for improving service?" If we understand both customer expectations and perceptions, we can assess the **gap** in these areas. For example, if customers have higher expectations for tangibles than for reliability, and customers perceive tangibles as poor, then a large gap or disconnect exists between the expected and delivered performance on tangibility. Given that this gap is larger, the greater potential for increasing customer satisfaction lies in addressing tangibles first. This type of analysis provides a good way to understand how best to improve customer satisfaction. Figure 8-2 shows the 22 survey items for expectations. The wording of the statements in the expectations survey relates to a generic firm in an industry that interests you. For example, if you were assessing customer service for a given grocery store, you might first administer the expectations survey to customers of the particular grocery store. Later, the perceptions survey might be administered to the customers of the particular grocery store. Table 8-2 shows the items that address specific service quality dimensions. The averaged scores for these dimensions provide SERVQUAL difference scores (to be demonstrated later).

FIGURE 8-2 SERVQUAL Expectations Survey

	<i>Strongly Disagree</i>							<i>Strongly Agree</i>
1. Excellent _____ companies will have modern-looking equipment.	1	2	3	4	5	6	7	
2. The physical facilities at excellent _____ companies will be visually appealing.	1	2	3	4	5	6	7	
3. Employees at excellent _____ companies will be neat-appearing.	1	2	3	4	5	6	7	
4. Materials associated with the service (such as pamphlets or statements) will be visually appealing in an excellent _____ company.	1	2	3	4	5	6	7	
5. When excellent _____ companies promise to do something by a certain time, they will do so.	1	2	3	4	5	6	7	
6. When a customer has a problem, excellent _____ companies will show a sincere interest in solving it.	1	2	3	4	5	6	7	
7. Excellent _____ companies will perform the service right the first time.	1	2	3	4	5	6	7	
8. Excellent _____ companies will provide their services at the time they promise to do so.	1	2	3	4	5	6	7	
9. Excellent _____ companies will insist on error-free records.	1	2	3	4	5	6	7	
10. Employees in excellent _____ companies will tell customers exactly when services will be performed.	1	2	3	4	5	6	7	
11. Employees in excellent _____ companies will give prompt service to customers.	1	2	3	4	5	6	7	
12. Employees in excellent _____ companies will always be willing to help customers.	1	2	3	4	5	6	7	
13. Employees in excellent _____ companies will never be too busy to respond to customers' requests.	1	2	3	4	5	6	7	
14. The behavior of employees in excellent _____ companies will instill confidence in customers.	1	2	3	4	5	6	7	
15. Customers of excellent _____ companies will feel safe in their transactions.	1	2	3	4	5	6	7	
16. Employees in excellent _____ companies will be consistently courteous with customers.	1	2	3	4	5	6	7	
17. Employees in excellent _____ companies will have the knowledge to answer customers' questions.	1	2	3	4	5	6	7	
18. Excellent _____ companies will give customers individual attention.	1	2	3	4	5	6	7	
19. Excellent _____ companies will have operating hours convenient to all their customers.	1	2	3	4	5	6	7	
20. Excellent _____ companies will have employees who give customers personal attention.	1	2	3	4	5	6	7	
21. Excellent _____ companies will have the customer's best interests at heart.	1	2	3	4	5	6	7	
22. The employees of excellent _____ companies will understand the specific needs of their customers.	1	2	3	4	5	6	7	

Adapted from: V. Zeithamel, A. Parasuraman, and L. Berry, "SERVQUAL: A Multiple-Item Scale for Measuring Customer Perceptions of Service Quality," *Journal of Retailing*, Spring 1988, pp. 12-40.

TABLE 8-2 SERVQUAL Items and Dimensions

<i>Dimension</i>	<i>Items</i>
Tangibles	1-4
Reliability	5-9
Responsiveness	10-13
Assurance	14-17
Empathy	18-22

Perceptions The SERVQUAL perceptions survey shown in Figure 8-3 is administered to customers in the same way that the expectations survey was administered. Notice that the perceptions survey also contains 22 items that are matched with the same five service quality dimensions as the expectations survey (the dimensions are listed in Table 8-2).

Gap Analysis The SERVQUAL instrument is useful for performing what is called **gap analysis**. Because services are often intangible, gaps in communication and understanding between employees and customers have a serious negative affect on the perceptions of services quality. The model in Figures 8-4 through 8-8 shows the gaps that commonly occur and can affect the perceptions of services quality.

Each of the gaps in the model demonstrates differences in perceptions that can have a detrimental effect on quality perceptions in services. The SERVQUAL survey instrument can be administered in a variety of ways that examine each of these gaps. For example, SERVQUAL can be used to explore differences in perceptions between customers, between managers, between managers and customers, and between employees. We will briefly examine each of the different gaps in the next paragraphs.

Gap 1 shows that there can be a difference between *actual* customer expectations and *management's idea* or perception of customer expectations. As a customer, have you ever wanted to tell a service provider, "I don't want you to do that; I want you to do something else!" It is very difficult for managers or employees to break out of the internal, process-oriented view of the business. Many times, improving processes does not equal improving customer service. To truly improve customer service, we must understand what the customer wants. The SERVQUAL instrument can be used to help in this understanding (see Figure 8-4).

Managers' expectations of service quality may not match service quality specifications. This mismatch is demonstrated in *gap 2* (see Figure 8-5). Once managers truly understand what the customer wants, then a system can be developed to help provide exactly what the customer wants. Often, because firms do not specify customer requirements according to a well-defined process, there is no way to know whether customer specifications and management expectations are aligned.

Once services specifications have been established, the delivery of perfect services quality is still not guaranteed. Inadequate training, communication, and preparation of employees who interact with the customer, referred to as **contact personnel**, can lower the quality of service delivered. This mismatch is shown in Figure 8-6 as *gap 3*.

Gap 4 (see Figure 8-7) shows the differences between services delivery and external communications with the customer. Companies influence customer expectations of services through word of mouth and through other media such as advertising. As a result, there could be a difference between what customers hear you say you are going to deliver as a service provider and what you actually deliver. Have you ever heard someone say, "They promised me one thing and gave me another." This gap can lead to seriously negative customer perceptions of service quality.

Gap 5 (Figure 8-8) is the difference between perceived and expected services, which we considered briefly when we introduced the SERVQUAL instrument. Think of the first time you dealt with your university admissions office or financial aid office.

FIGURE 8-3 SERVQUAL Perceptions Survey

	<i>Strongly Disagree</i>							<i>Strongly Agree</i>
1. XYZ Co. has modern-looking equipment.	1	2	3	4	5	6	7	
2. XYZ Co.'s physical facilities are visually appealing.	1	2	3	4	5	6	7	
3. XYZ Co.'s employees are neat-appearing.	1	2	3	4	5	6	7	
4. Materials associated with the service (such as pamphlets or statements) are visually appealing at XYZ Co.	1	2	3	4	5	6	7	
5. When XYZ Co. promises to do something by a certain time, it does so.	1	2	3	4	5	6	7	
6. When you have a problem, XYZ Co. shows a sincere interest in solving it.	1	2	3	4	5	6	7	
7. XYZ Co. performs the service right the first time.	1	2	3	4	5	6	7	
8. XYZ Co. provides its services at the time it promises to do so.	1	2	3	4	5	6	7	
9. XYZ Co. insists on error-free records.	1	2	3	4	5	6	7	
10. Employees in XYZ Co. tell you exactly when services will be performed.	1	2	3	4	5	6	7	
11. Employees in XYZ Co. give you prompt service.	1	2	3	4	5	6	7	
12. Employees in XYZ Co. are always willing to help you.	1	2	3	4	5	6	7	
13. Employees in XYZ Co. are never too busy to respond to your requests.	1	2	3	4	5	6	7	
14. The behavior of employees in XYZ Co. instills confidence in you.	1	2	3	4	5	6	7	
15. You feel safe in your transactions with XYZ Co.	1	2	3	4	5	6	7	
16. Employees in XYZ Co. are consistently courteous with you.	1	2	3	4	5	6	7	
17. Employees in XYZ Co. have the knowledge to answer your questions.	1	2	3	4	5	6	7	
18. XYZ Co. gives you individual attention.	1	2	3	4	5	6	7	
19. XYZ Co. has operating hours convenient to all its customers.	1	2	3	4	5	6	7	
20. XYZ Co. has employees who give you personal attention.	1	2	3	4	5	6	7	
21. XYZ Co. has your best interests at heart.	1	2	3	4	5	6	7	
22. Employees of XYZ Co. understand your specific needs.	1	2	3	4	5	6	7	

Adapted from: V. Zeithamel, A. Parasuraman, and L. Berry, "SERVQUAL: A Multiple-Item Scale for Measuring Customer Perceptions of Service Quality," *Journal of Retailing*, Spring 1988, pp. 12-40.

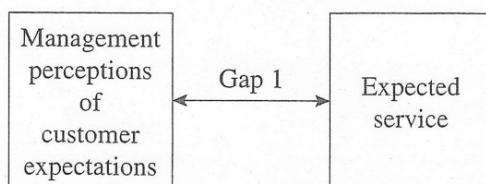
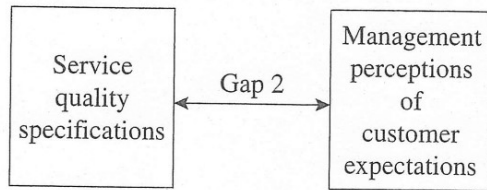
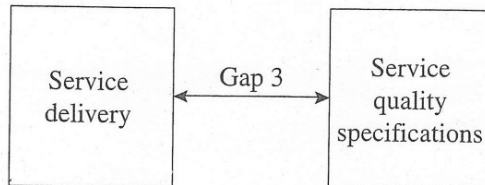
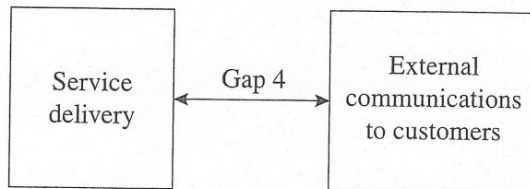
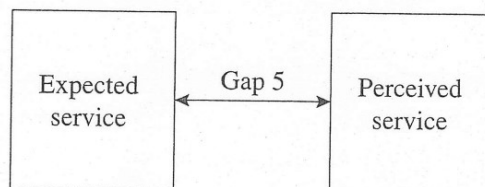
FIGURE 8-4 Gap 1

FIGURE 8-5 Gap 2**FIGURE 8-6** Gap 3**FIGURE 8-7** Gap 4**FIGURE 8-8** Gap 5

In many universities and colleges, these offices are well run and provide great service. However, in other colleges, their service is not so good. The difference between your expectations and your perceptions is directly related to your perception of service quality.

The key to closing gap 5 is to first close gaps 1 through 4 through thoughtful systems design, careful communication with the customer, and a workforce trained to provide consistently outstanding customer service. As long as these gaps exist, there will be lowered perceptions of customer service.

Assessing Differences in Expectations and Perceptions by Using the Differencing Technique Let's suppose that you have administered both the expectations and the perceptions SERVQUAL instruments to your customers. Typically, you need a sample size of between 50 and 100 for each of the surveys (i.e., $50 < n < 100$, where n is the

sample size). The difference score for SERVQUAL is computed using the following steps. Separate the SERVQUAL dimensions as follows:

Dimension	Items
Tangibles	1-4
Reliability	5-9
Responsiveness	10-13
Assurance	14-17
Empathy	18-22

For each respondent, sum your SERVQUAL scores for the items relating to a given dimension. Sum across the n respondents and divide the total by n .

Example 8.1: SERVQUAL Differencing

Recently, a hospital administered the SERVQUAL survey to its customers as a way to determine where it should focus the training of its employees to best improve customer service. Fifty surveys were administered to customers before and after they were treated. In cases where the patients were in too much pain to fill out the perceptions survey after a procedure, they were asked to fill out the survey at the follow-up visit. On the basis of the 50 responses, the following averages were computed for each item:

Item Number	Average Perception	Average Expectation	Difference
1	6.5	6.3	0.2
2	6.4	6.4	0
3	6.9	6.2	0.7
4	6.8	6.8	0
5	3.2	5.2	-2
6	3.4	6.1	-2.7
7	3.3	6.3	-3
8	3.5	5.9	-2.4
9	3.6	6.6	-3
10	5.2	2.4	2.8
11	5.5	2.2	3.3
12	5.6	2.4	3.2
13	5.8	2.6	3.2
14	4.1	3.2	0.9
15	5.5	3.3	2.2
16	4.3	3.4	0.9
17	4.1	3.2	0.9
18	4.2	3.5	0.7
19	2.6	6.5	-3.9
20	2.8	6.6	-3.8
21	2.5	6.4	-3.9
22	2.4	6.3	-3.9

On the basis of these means, the following overall averages were computed for the different dimensions:

Perception Averages		Average Perception	Average Expectation	Expectation Averages	
Tangibles:	6.650	6.5	6.3	Tangibles:	6.425
(Avg. items 1-4)		6.4	6.4	(Avg. items 1-4)	
		6.9	6.2		
		6.8	6.8		
Reliability:	3.400	3.2	5.2	Reliability:	6.020
(Avg. items 5-9)		3.4	6.1	(Avg. items 5-9)	
		3.3	6.3		
		3.5	5.9		
		3.6	6.6		
Responsiveness:	5.525	5.2	2.4	Responsiveness:	2.400
(Avg. items 10-13)		5.5	2.2	(Avg. items 10-13)	
		5.6	2.4		
		5.8	2.6		
Assurance:	4.500	4.1	3.2	Assurance:	3.275
(Avg. items 14-17)		5.5	3.3	(Avg. items 14-17)	
		4.3	3.4		
		4.1	3.2		
Empathy:	2.900	4.2	3.5	Empathy:	5.860
(Avg. items 18-22)		2.6	6.5	(Avg. items 18-22)	
		2.8	6.6		
		2.5	6.4		
		2.4	6.3		

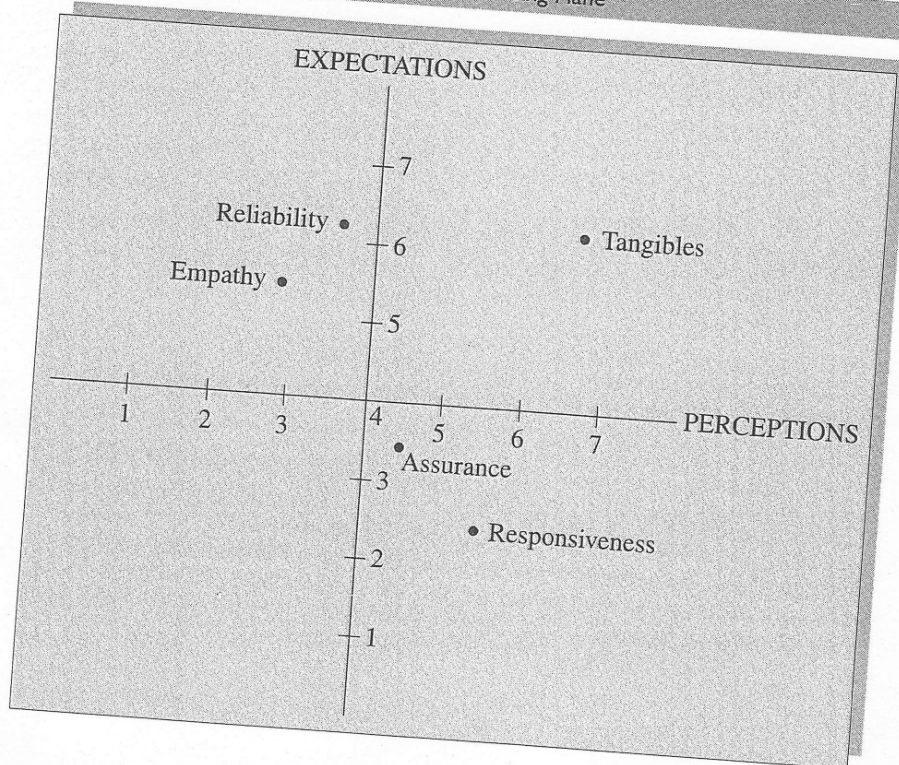
The averages for each of the dimensions of service quality were computed by averaging the items pertaining to the dimension. Finally, differences for the dimensions were computed as follows:

	Perception		Expected		
Tangible difference =	6.65	less	6.425	equals	0.225
Reliability difference =	3.4	less	6.02	equals	-2.62
Responsiveness difference =	5.525	less	2.4	equals	3.125
Assurance difference =	4.5	less	3.275	equals	1.225
Empathy difference =	2.9	less	5.86	equals	-2.96

The differences show that the greatest negative mismatch exists in the dimension of empathy, with reliability as a close second. Therefore, the training program should focus on teaching employees to be empathetic. Also, the process improvement efforts should focus on improving reliability. These changes will lead to the greatest improvements in customer service.

Example 8.2: SERVQUAL Two-Dimensional Differencing

If there is enough variation in the responses given to different dimensions, the two-dimensional differencing technique is very useful for evaluating SERVQUAL responses. Note that this technique is also used for specific questionnaires relating to specific services offered by companies. For example, St. John's Hospital administers surveys to patients asking about several specific services such as food, laundry, nursing, and many other services. The two-dimensional differencing technique allows the hospital to determine which services it should emphasize to improve customer perceptions and those that make little difference.

FIGURE 8-9 Two-Dimensional Differencing Plane

Using the information from Example 8.1, it is fairly simple to develop a two-dimensional services plane. The vertical axis reflects the expectations score and the horizontal axis relates to the perceptions score (Figure 8-9). The hospital analyst learns that emphasis is needed in the areas of reliability and empathy, as these are areas where expectations are high and perceptions are relatively low.

DESIGNING AND IMPROVING THE SERVICES TRANSACTION

So far in this chapter we have discussed customer perceptions of quality. One of the ways to improve customers' perceptions of quality is to improve the process of delivery of the service. Just as teams can succeed in manufacturing, teams in services can develop ways to improve processes and customer satisfaction.

Other concepts and tools include services blueprinting, moments-of-truth concept, and the Japanese method known as poka-yoke. Each of these is discussed in the following paragraphs.

Services Blueprinting Lynn Shostack, CEO of Joyce International, Inc., is known for the statement, "The process is the service." Shostack also developed the process known as **services blueprinting**.⁵ A services blueprint is a flowchart that isolates potential fail points in a process. She recommends that blueprints be kept on every process in a service and that a "keeper of the blueprint" make the blueprints available for others in the firm. If possible, the blueprint also should be available on a computer network for all to view. There are four steps to developing a service blueprint.

⁵Shostack, G. L., "Designing Services That Deliver," *Harvard Business Review* 62, 1 (1984):135.

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