Planning the Service Delivery System

HOSPITALITY PRINCIPLE: PROVIDE SEAMLESS SERVICE DELIVERY

Being nice to people is just 20% of providing good customer service. The important part is designing systems that allow you to do the job right the first time.

—Carl Sewell, *Customers for Life*

LEARNING OBJECTIVES

After reading this chapter, you should understand:

- How to plan, design, analyze, and check the hospitality organization's service delivery system.

- How to design a delivery system using several methods, such as flow-charting, blueprinting, the universal service map, and PERT/CPM.

- How to use fishbone analysis, poka-yokes, and other methods to locate the source of problems and prevent their occurrence or reoccurrence.

- How to use a cross-functional organizational design to deliver a service product.

KEY TERMS AND CONCEPTS

Juran Trilogy	fishbone analysis	simulation
service standards	Pareto analysis	poka-yoke
blueprint	PERT/CPM	cross-functional structure
universal service map	critical path	
fishbone diagram	PERT/CPM chart	

PLANNING AND DESIGNING THE SERVICE DELIVERY SYSTEM

Check the System First

Horst Schulze, former chief operating officer of The Ritz-Carlton Hotels, liked to tell the story of how one hotel manager solved the problem of delays in serving room-service breakfasts. After several guests complained to the manager about their breakfasts being brought to the rooms both slow and cold, the manager knew he had to investigate. The traditional managerial solution to the problem would have been to call in and loudly criticize the offending room-service manager for technical incompetence and poor supervisory skills. The then properly disciplined manager would return to the kitchen, gather the room-service staff around, and yell at them. After all, in most organizations, blame rolls downhill to the lowest-level employee.

Schulze used the example to illustrate a different problem-solving approach. The manager organized a team of room-service people and asked them to study the problem, find out why the meals were not getting to guests within a reasonable time, and suggest ways to solve whatever problem they found. The team did exactly that. They studied the problem at great length and found that the cause was the unavailability of service elevators needed by the room-service people to get the meals quickly to their guests. They studied why the elevators were unavailable and even had a room-service employee spend an entire morning in the elevators with a stopwatch to see where the elevators were, what they were being used for, and why they were unavailable when the room-service people needed them.

Short-Sheeted

What the team found astonished Schulze and the manager. The whole problem could be traced to a faulty management decision about how many bed sheets each floor was allowed to stock (called the "par") for the housekeepers. The decision had left some floors with too few sheets, and the housekeepers were using the elevators to hunt for extra sheets to finish cleaning the rooms on their floors. The elevators were therefore unavailable to the room-service delivery people when they needed them, cold meals intended to be hot were delivered late, and the guests got angry. Because a manager trying to save on the cost of sheets had stocked too few, the rest of the system was disrupted. This cost-saving move drove up the costs of room service (because the hotel did not charge for meals when guests complained) and housekeeping labor (because housekeepers were spending their time in elevators instead of making beds). Trying to solve a problem in one part of the service delivery system created problems for another part. The total impact was to drive up costs and cause guest dissatisfaction.

Lessons Learned

What manager would ever have thought that the late-breakfast problem would be solved by adding more bed sheets to the available supply on each floor? Schulze drew three lessons from this story. First, managers aren't smart enough, or don't have enough time or information, to prevent or solve all the problems by themselves. Therefore, they tend to find the simplest, quickest solution, which is usually based on their assumption that a subordinate isn't sufficiently motivated, trained, or supervised. These managers rely on the traditional theory that "if you correct the person, you correct the problem." Second, employees may have a better chance of finding the root causes of a problem than the manager. After all, those in the middle of the situation often know more about what is really going on than the manager. According to Schulze, not using the talents, intelligence, and job-related knowledge of these people is worse than dumb. Finally, the most important lesson is that every problem should be addressed first from the perspective of the entire service delivery system. Although a person may end up being the cause of a service failure, Schulze believed that the fault is frequently in the system and not the person. Simply putting out one small fire ("we are spending too much money on sheets") without thinking about the system can cause big problems elsewhere.

Designing and Checking the Service Delivery System

We have said all along that the service delivery system includes all aspects of the service experience—service product, service setting, and service delivery—and hospitality managers need to think about the entire process that delivers the service to the guest and about the systems that are needed to make the process work flawlessly. Developing a service product that meets guests' needs and having well-trained, motivated, enthusiastic employees using the right information, equipment, and tools to deliver the product to guests within a well-designed service environment are all necessary, but these are not sufficient. The key component of a flawless service experience is making sure that the entire service delivery system, the process by which the service is delivered to the guest, is designed so that it effectively integrates the many elements of the experience to make it happen in the way that the customer expects.

Richard Metters and Ann Marucheck maintain that "the urgency for rigorous study to guide service managers in improving the design, competitiveness, efficiency, and effectiveness of service delivery, both at the firm and industry levels, has never been greater."[1] Achieving guest delight and avoiding service failure can both be greatly affected by delivery system design. Every hospitality organization should spend whatever studying and planning time and energy it takes to get the system right. It is a crucially important topic.

The total quality management movement, which emphasized that everyone is responsible for quality—not just the quality control department—has taught organizational leaders several important lessons. First, achieving total quality requires consideration of the entire system—from initial design, to using whatever raw materials and inputs that are needed, to the finished product. Second, everyone is responsible for delivering and monitoring quality; in hospitality, everyone is responsible for the quality of the guest experience. Third, the system needs to be checked for problems before people are blamed. Hospitality managers must find the *root causes* of problems and implement solutions to avoid future problems, and these root causes often lie in the system.

Too many times, hospitality managers assume that the employee has made an error when in reality the fault lies in a bad system, which makes it difficult, if not impossible, for the employee to deliver the service experience with the excellence that the organization,

Behind the scenes at a busy restaurant; a service delivery system must be carefully planned to ensure that every guest is delighted by both the service and the service product.

the employee, and the guest would like. Talk with frontline servers at hotels, restaurants, or any hospitality organization, and they will tell you how frustrated they become when the service systems are inadequate for them to do the jobs they are hired and paid to do, and which they really want to do well. When the service delivery system fails, everyone loses. The guest is unhappy, the employee is frustrated, and the organization may lose a guest and all the profits that the guest's future business represents.

The Goal: Fail No Guest; Delight Every Guest

The hospitality manager must spend the extra time and effort to plan and organize the service delivery system so that it works right every time. To achieve the companion goals of failing no guest and delighting every guest, successfully planning the entire guest experience (the cycle of service) and focusing on an effective delivery system are critical. While we don't want to downplay the contributions of production management techniques and the solutions that industrial engineers have found for problems in manufacturing organizations, these tools cannot guarantee the success of any hospitality organization's service delivery system because *the guest* is always the ultimate judge of the quality and value of the guest experience. Service delivery system designers must, therefore, ensure that they design the experience from the guest's point of view and not their own. Too many organizations design their service production processes for employee convenience or efficiency. Although the system should be user-friendly for employees, the outstanding hospitality providers organize the service around the guest's needs, expectations, capabilities, and actual behaviors. The delivery of any service should always be smooth, seamless, and transparent from the guest's point of view.

Some Guiding Principles

Given the goal of providing exceptional customer service, and learning from the lessons of The Ritz-Carlton example (and indeed, all the examples in this book), here are some principles to keep in mind. Study your customers in minute detail, build a service delivery

system that will provide the experience they expect from your organization, monitor that system closely, create accurate early-warning measures for each possible failure point, engage everyone in the organization in watching those measures, and follow up on everything that doesn't meet your guests' expectations for whatever reason. If failures occur repeatedly at certain points, change the system design. If service standards are unmet, find out why. If the organization has a service guarantee, be sure that the delivery system can meet and exceed that guarantee.

Although excellent hospitality organizations do their best to keep service failures from happening by keeping a careful eye on all the places where the system might fail, they know that failures are inevitable. Therefore, they plan for how to recover from the inevitable failures. They design systems that ensure success, avoid failure, and recover from failure on the key drivers of guest satisfaction.

DEVELOPING THE SERVICE DELIVERY SYSTEM

After almost fifty years of research, Joseph Juran published the **Juran Trilogy** in 1986. It defined the three management processes that Juran thought were required by all organizations to improve: quality planning, quality control, and quality improvement. Quality planning involves identifying customers, determining their needs, creating a product or service to meet those needs, and then developing a system to deliver the product or service. Quality control with respect to the hospitality industry means making sure that the system is delivering the service in the most effective way. Errors as the product or service is being delivered, whether due to inadequate planning or faulty execution, are prevented or minimized through quality control. Quality improvement involves after-the-fact analysis of the errors and failures that have contributed to poor quality and improving the delivery process to reduce or eliminate future errors based on that analysis.

The influence of Juran's Trilogy can be seen in Table 10-1. It shows the when, what, who, and how of a comprehensive service delivery system and the service experience that it provides. It reminds us that an exceptional customer service experience begins even before the guest walks through the door. It also reminds us that the needs, wants, expectations, capabilities, and behaviors of the targeted guests are the starting point of any delivery system. The table shows that the overall process consists of three phases: planning, monitoring, and assessing/improving the service delivery system. These three phases are the focus of this final section of the book. If the process was well planned and designed, then the organization is ready to deliver the desired service, in a way that should elicit a wow reaction.

This chapter focuses on carefully planning the service experience. The next chapter focuses on a special case of planning—managing waits—because waits and queues are so pervasive in hospitality experiences. Chapter 12 describes how companies can better manage the delivery of each guest's experience by monitoring, measuring, and evaluating the quality of their service delivery as it is being delivered. Chapter 13 describes the process of service recovery, and how fixing service problems and learning from service errors after the service has been delivered can both help recover unsatisfied guests and lead to improvements in the entire service delivery system. No service system is foolproof, but the best managers take the time to plan out the guest experience with all available planning tools, monitor it while it is happening, and fix it when they find that it did not meet guest expectations. Since no one can manage what isn't measured, we will focus on tools that measure the service delivery system so that a flawless experience can be delivered to every guest every time.

TABLE 10-1 Planning the Delivery System, Monitoring the Service Experience, and Assessing the Experience to Improve the System

	Phase I: Planning the Service Delivery System	Phase II: Monitoring the Service Experience	Phase III: Assessing the Experience to Improve the System
When	**Before** the guest arrives, and while the guest is waiting for the service experience	**During** the guest's experience	**After** the guest's experience
What	Experience expected	Experience realized	Experience remembered
Who	Target customers	Actual customers	Past, current, and potential future customers
How	Setting service standards; blueprinting; Universal Service Map; fishbone analysis; PERT/CPM; simulations; forecasting demand; designing waits (queues); training; quality teams; poka-yokes; cross-functional organizational design	Applying service standards and job performance standards; managerial observation (MBWA); employee observation meeting terms of service guarantees; personal interviews and encounters with guests	**Guest assessment**: Comment cards; toll-free 800 numbers; surveys (mail and Web, phone, critical incidents); SERVQUAL; guest focus groups; mystery shoppers **Other data review**: Service failure reports; service guarantee utilization; interviews; customer complaints by category and type; employee feedback; sales and revenue reports; market share/capacity utilization **Further review**: Organizational design; service standards; training methods **Refer findings back to system planners**

© Cengage Learning 2012.

Planning the System

Any good delivery system begins with careful planning. Careful analysis and detailing of every step in the entire service delivery process will make the difference between having it mostly right and reaching the level of excellence that the very best service organizations deliver.

Service standards should be established early in the planning process. They are the company's expectations for how the different aspects of the service experience should be delivered every time to every guest. And, as is true when setting individual goals (discussed in Chapter 7), the criteria for service standards should be SMART: specific, measureable, attainable, results oriented, and time bound.

Some standards are widely used in the hospitality industry: twenty minutes to get a room-service breakfast, six minutes to check-in including waiting time, and less than that to get the first cup of morning coffee in the hotel restaurant. A special type of service standards (see Table 10-2) are those set by industry associations or other agencies that establish

TABLE 10-2 Externally Developed Standards

Some organizations test the accuracy of their internally developed standards by seeking external affirmation of their service quality. They do so in three basic ways: certifications, accreditations, and recognition by ranking organizations.

Certifications

The National Institute of Standards and Technology's Malcolm Baldrige Award and ISO 9000:2008 series certification are the external evaluations generally seen by hospitality and other service organizations as the best affirmation of their service quality. Many are now also seeking environmental certifications such as Leadership in Energy and Environmental Design (LEED), Green Lodging, BigGreenG, and various state-level certifications. Those organizations seeking to be ISO 9000-certified develop the supporting materials for showing their compliance with each standard and apply for a review. If the review finds that the firm meets the standards, the firm can advertise itself as being ISO 9000 certified. The International Organization for Standardization details its requirements on its Web site. These certifications may have little meaning to most guests, but to both employees and external business partners, the certifications are marks of quality that can be displayed proudly. Individuals can earn a Six Sigma Black Belt Quality certification from the American Society for Quality (ASQ) to affirm their mastery of the quality-improvement principles defined by the Design, Measure, Analyze, Improve, Control (DMAIC) methodology. A variety of other certifications are designed either for a specific employee category, such as those for cruise line counselors, meeting professionals, and sommeliers, or for specific industry groups, which in some cases are required by law to affirm compliance with quality standards such as the National Restaurant Association's ServSafe Food Safety Manager and the Hazardous Analysis and Critical Control Point (HACCP) certification.

Accreditations

Accreditation provides public notice that an organization has met standards of quality established by the accrediting group. Several professional organizations related to hospitality offer accreditation as a way for their members to affirm to their key stakeholders that they are of high quality. Examples are the Destination Management Accreditation Program (DMAP) initiated by Destination Marketing Association International (DMAI), the International Air Transport Association (IATA) accreditation for travel agents, and the International Cruise Council of Australia's (ICCA) Cruise Accreditation Program.

Recognitions

The various hospitality recognition programs are generally the most visible and important affirmations of quality to guests. They include evaluations and ratings by magazines like *Consumer Reports* and *Wine Spectator*, quality-rating organizations like J.D. Power and American Automobile Association, and print or online travel guides such as Michelin, Fodor, Rick Steeds, Lonely Planet, and TripAdvisor. These external organizations create and then apply service standards to evaluate hospitality organizations. Knowing that these standards and ratings exist and may be used by guests, hospitality organizations can use them as blueprints for developing a set of more detailed internal service standards that focus organization members on key drivers of guest satisfaction. Knowing that the guests using these external reviews are seeking a specific level of service when they arrive at a hotel, restaurant, cruise line, or an attraction not only gives the organization's management a set of standards to meet but also provides an opportunity and motivation to exceed those expectations and provide a wow experience, instead of merely meeting the standards.

Achieving these certifications, accreditations, and recognitions provides visible evidence to key customers and stakeholders of the organization's commitment to service excellence. A concierge who is a member of the Les Clefs d'Or proudly wears her crossed gold keys to show her mastery of the profession and commitment to high levels of guest service quality.

The external evaluations also provide an excellent means for organizations that have not yet developed internal service standards to begin the process of identifying what service factors are most important to their guests.

© Cengage Learning 2012.

certification, accreditation, and recognition standards. Organizations or individuals are assessed on the degree to which they meet these standards and those assessments are then made public. Most standards, however, are specific to the organizations setting them and are designed to meet or beat the expectations of their targeted guests and often the competition as well. McDonald's sets standards for every task and includes them to create the "Full Field (now "Operating") Report" that their more than 950 field inspectors use to evaluate each McDonald's.[2] Airlines define how many minutes it should take for bags to get from the parked aircraft to the baggage-claim area. If they're not on the conveyor belts in that time, the service-quality standard has not been met. Many organizations use the number of rings for answering the phone in a guest service response area. If a reservationist, for example, hasn't picked up the phone within three rings, the service-quality standard has not been met. These are service-quality standards, established during the planning phase, that guide employees in what quality and kind of experience they are expected to deliver to guests.

Service standards are one of the most important tools that hospitality managers have to ensure that the service expectations of guests are at least being met. Service standards need to be established in the planning stage, before the guest is present. As we will discuss in subsequent chapters, they also need to be checked when the guest is present to be sure they are being met, and after the guest leaves to determine the degree to which every part of the service experience was delivered in the way it was planned.

Monitoring the Service Experience

Phase II in Table 10-1 involves monitoring the experience through measurement as the experience is happening, to be discussed in Chapter 12. We have said before that you can't manage what you don't measure, and this is especially true of service situations. Industrial engineers in manufacturing have taken methods measurement to the level of a precise science. The service industry in general, and the hospitality industry in particular, have lagged behind in understanding how to apply measurements to the largely intangible services that they offer. The need for measuring what is happening to the guest in every step of service delivery is critical in assuring continuing guest satisfaction and, if problems arise, in recognizing them, applying solutions, and in determining if the solutions have succeeded.

Organizations should measure the quality of service delivery against service standards whenever possible. Such standards help to make the intangible experience tangible for purposes of measurement and control. These standards, carefully created during the planning stage, are an excellent way to focus everyone on what is important to the guest. Saying to a server "I think you ought to work faster" is easy and might (or might not) improve the service experience of tonight's guests. However, in the long run, comparing a server's performance from last month against target levels for standards like "time until initial greeting," "time for delivery of food or drink," and "time to bring the bill" can be much more helpful. Indeed, in the best circumstances, when the measures are clear, fair, connected to providing excellence, and completely understood by the employees whose performance is being measured, employees will be able to measure and manage themselves on certain performance measurements. If done well, *self-management through self-measurement* is to everyone's benefit. If you teach employees what is important to their individual job success and then train them to measure how they are performing on those critical factors, you have the beginnings of a self-managing workforce and, when things go wrong, a self-healing system. Ideally, performance measures make it possible for employees to monitor their own delivery effectiveness while actually providing the service. If Kris Smith knows that the organizational maximum for answering her phone is

three rings, and a computerized device displays a running record of how many average rings it takes Kris to answer a call, Kris knows at all times where she stands in relation to the company standard.

Assessing the Experience and Improving the System

After planning the system and monitoring the experience through measurement comes the last step: assessment and improvement. Collecting and analyzing information about what has actually occurred drives system improvement. Once the plan is clearly laid out and the results of implementing that plan adequately measured to yield insights into how well the system is operating, both management and employees have the information needed to redesign the system and fix the problems to yield continuing improvement in the guest experience.

In Table 10-1, in the "How" block of Phase III: Assessing the Experience to Improve the System, sales and revenue reports and market share/capacity utilization are included. The overall health of the business is a good indicator of whether or not guest service quality is where it should be. If the business is losing money, market share, capacity use, and so forth, these measures may indicate problems with the service product, setting, or delivery system. In other words, gathering and reviewing data generated by the tools described in the chapters to follow are important, but the overall success of the business itself is an indicator of whether or not you are providing the guest experience on which you built your business model.

The Blurred Lines

Figure 10-1 shows that the lines between the different phases of service are not sharply drawn. This figure helps us to organize across the following chapters what we know about managing a service delivery system so as to provide an exceptional experience. In reality,

FIGURE **10-1** The Phases of Service Delivery
© Cengage Learning 2012
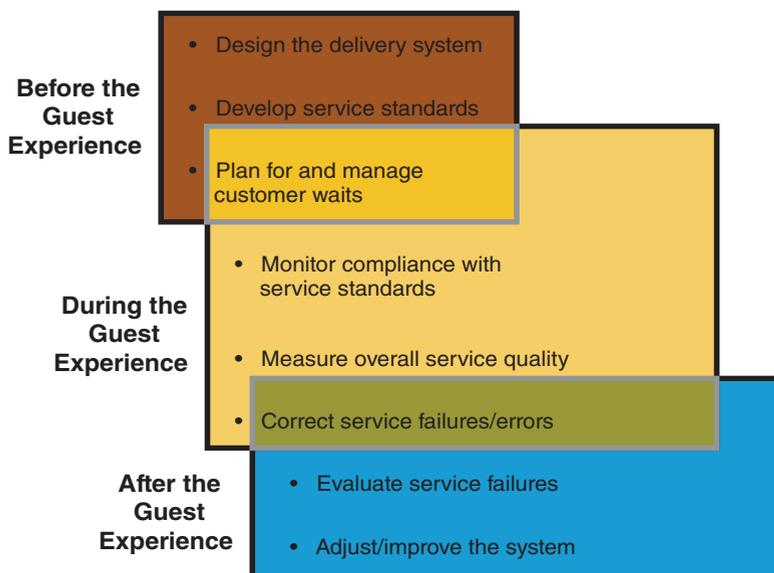
the distinctions between the phases of producing services like hospitality experiences are not clear. A refrigerator is built in a distant factory, delivered to a store, and then purchased in that store. Each stage of the production and delivery system is clearly distinct. The borders between the phases of service delivery represent overlapping areas and are not distinct.

As noted above, planning for the service experience begins even before the guest walks through the door, and part of this planning involves preparing for the inevitable customer waits, represented by the upper gray area in Figure 10-1. The customer perceives the wait as part of the service experience, and if it is mishandled or too long, then the guest may feel that, overall, the entire service experience was disappointing. Another blurred line, represented by the lower gray area in Figure 10-1, represents service recovery or the correction of errors. They can be corrected either during the service or after the service. Obviously, the best time to catch, fix, apologize, and possibly compensate for failures is before the guest actually leaves.

Although organizations are not happy about guest complaints, all should welcome them as valuable feedback on how well they are meeting their guests' needs and expectations. Complaining guests give a clear indication that their service experience was in some way not a success. Because research shows that most dissatisfied guests do not complain, organizations need methods for measuring the success of all service experiences, not just experiences that guests complain about. Only in that way can organizations ensure that they are delivering the expected service, to every guest, every time.

Because organizations need systematic ways to learn how well they are doing in order to get better, they survey not only the guests that came in but also the ones in their target market who didn't, or those who didn't come back.

The Self-Healing System

As noted by Horst Schulze, even if you have all the characteristics and features of a high-quality hotel, its service delivery system can still fail from time to time. Schulze's goal was to use the people and the system designers to create what he termed a *self-healing system*, in which the employees can override the system and fix guest problems when it fails. The employees in a self-healing system are also responsible for telling management where the system has failed so that together they can fix it. Just as everyone is responsible for providing and maintaining quality, everyone is responsible for avoiding and fixing service failures.

The Cycle Goes On

The cycle of planning, monitoring, and assessing/improving should never stop. The service plan lays out what you think your service delivery system should do for the guest, the control measures tell you if what you planned is in fact happening, and the commitment to improvement focuses everyone's attention on analyzing the data collected to fix any identified problems and move toward a flawless guest experience. The measures used should also trigger recognition of "exceptions," variations from the plan.

In addition to including ways to measure how well the service is being rendered at every step of the delivery process, a good plan must also include ways to measure how the overall plan is succeeding. When guests are asked about their experience, most of

them evaluate it holistically. They are often unable to identify how any one part of the experience influenced their determination of the total experience's value and their degree of satisfaction. They can, however, give an overall impression of service quality that can trigger managerial investigations. The guest may be unhappy with the dining experience at the restaurant, but until management sits down and carefully analyzes the data measuring each step in the entire guest experience, it may not recognize whether the dissatisfaction was caused by a long wait, a dirty bathroom, a cold appetizer, a rude server, or a messy entrance littered with cigarette butts. Knowing what the delivery system is supposed to do and analyzing data collected from the measures should trigger the necessary corrective actions.

PLANNING TECHNIQUES

The first step in service delivery system design is planning out the steps and processes in the entire system. Planning techniques focus on constructing or *diagramming* a thoroughly detailed step-by-step description of what the service delivery process involves and the service standards that must be met. Planning always starts with the guest and frequently begins with the moment when the guest becomes aware of the organization's ability to satisfy some need. The guest's expectations begin to build from that moment, long before the guest ever arrives at your front door. Since we know that what the guest expects forms the basis or criterion for determining how well the experience satisfies the guest, understanding those expectations becomes the first step in planning for and then providing any guest experience. This understanding forms the basis for the beginning of delivery system planning.

Detailing the delivery system by diagramming it has several immediate benefits to managers seeking to fail-safe the delivery of their service.[3] First, by writing it down, they can see on paper or on a computer screen, in a flowchart form that is easy to understand and study, how all parts of the system work. Second, the process of creating a diagram allows managers a visual means to show the service delivery process to others and how the various parts of the organization must work together. Third, having a visual representation of the service delivery system allows for thoughtful consideration of what processes guests should see and what should occur out of their line of vision. Fourth, it provides a means for comparing ideal service, as embodied in the diagram, with actual service, to identify aspects of the process that need improvement. Fifth, and perhaps most importantly, by focusing attention on component elements of the service delivery process, diagramming illustrates areas where problems are occurring and which areas need improvement.

Of the many planning techniques available, four basic ones are commonly used to develop a detailed plan for delivering the guest experience. The tools are blueprinting, the universal service map, fishbone analysis, PERT/CPM, and simulation. Each has its own advantages, but all are premised on the idea that a detailed written plan leads to a better system for managing the people, organization, and production processes that deliver the total guest experience. These tools are especially useful because they can readily incorporate the measurements necessary for control and analysis of problems that may appear in the system. After the plan is devised, managers can also use these techniques to focus on any part that guest feedback indicates might be a problem area. If effort and care are devoted to the plan, failures should be minimized. This is important because if situations are regularly permitted to get to the point where problem-solving and failure-recovery techniques become necessary, some guests will inevitably be lost to competitors.

Blueprinting

The most commonly discussed type of service diagramming is blueprinting. The entire service delivery process and its subprocesses are described in blueprint format as if one were building a house and needed a plan of what went where. In effect, a good **blueprint** defines every component part and activity, not just of the delivery system, but of the entire guest experience from the moment when the guest sees the front door or greeting sign to the time that the guest departs and moves out of sight.

A typical blueprint has five parts[4]:

1. *Physical evidence*. The tangible physical parts of the service experience that can impact customer assessment of quality and value.
2. *Customer actions*. The actions and behaviors of customers, which drive the creation of a blueprint.
3. *Onstage/visible contact-employee actions*. Things that customer-contact employees do as part of the face-to-face encounter and which customers see.
4. *Backstage/nonvisible contact-employee actions*. Things that customer-contact employees do out of sight of customers but which must happen for the experience to take place; this part of the blueprint also includes nonvisible interaction with customers (e.g., a customer's telephone call to make a reservation).
5. *Support processes*. Activities essential to providing the service but carried out by individuals and units that do not have direct contact with the customer (e.g., maintaining the company's information systems, food delivery, managing payroll).

Every event that is scheduled to happen from the start to the finish of the experience is laid out on a blueprint, as is every contingency that can reasonably be projected. Those points at which service failures are most likely to occur should be identified and early-warning mechanisms included.

The blueprint should attach times to the activities and processes involved in providing the service and the time for the entire guest experience. If an excellent service product in a compatible environment is provided in twenty minutes, a guest may feel rushed; if the service is provided within an hour, satisfied; if the service takes two hours to deliver, the guest may never return.
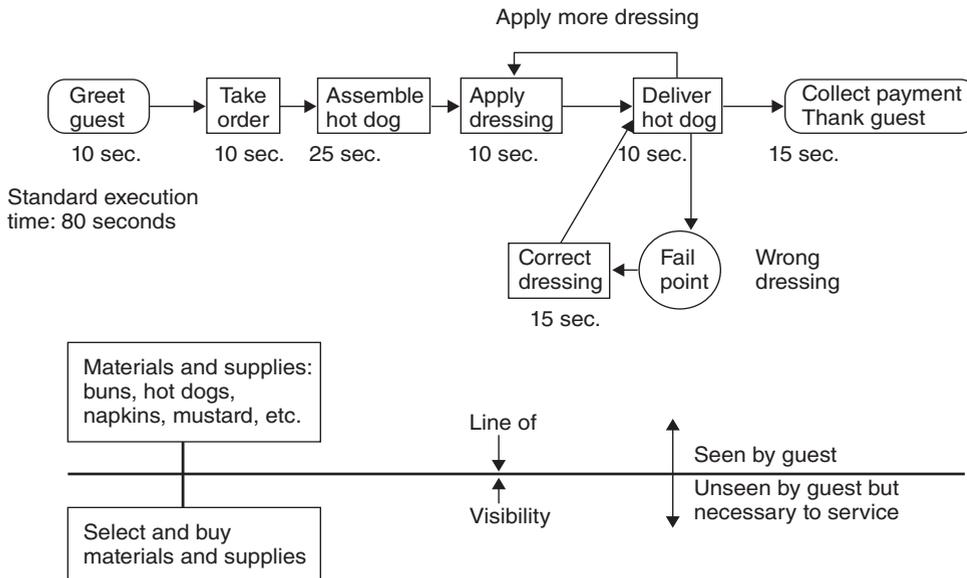
Finally, the purpose of blueprinting is not only to satisfy the guest but also to enable the organization to achieve its profit goal. Providing the service according to a well-designed blueprint will permit the organization to show a profit while maximizing the quality and value of guest experiences.

The Hot Dog Stand

Figure 10-2 details the complete service cycle for a street vendor's hot dog stand.[5] As diagrammed in the figure, the service begins with the vendor greeting the potential customer. The vendor takes the order, assembles a heated dog-and-bun combination, applies condiments and dressings, delivers the hot dog to the guest, and finally collects payment. The blueprint of the service also shows an arrow dropping from the application-of-condiments step to represent a potential area of failure where the vendor might incorrectly select and use the wrong condiment—kraut instead of relish, for example. If this happens, the next step shown in the figure is for the server to fix the problem by cleaning off the wrong condiment and returning to the application-of-condiments step. The blueprint also contains some other useful information. It provides time estimates for each step so that the total time of the service experience can be calculated. A "line of visibility" separates the events that the customer can see from those that can't be seen. Finally, the blueprint shows the customer tolerance time of the entire cycle.

FIGURE **10-2** Blueprint for a Hot Dog Stand

© Cengage Learning 2012

Apply more dressing

| Greet guest | → | Take order | → | Assemble hot dog | → | Apply dressing | → | Deliver hot dog | → | Collect payment Thank guest |

10 sec.   10 sec.   25 sec.   10 sec.   10 sec.   15 sec.

Standard execution time: 80 seconds

Correct dressing   Fail point   Wrong dressing

15 sec.

Materials and supplies: buns, hot dogs, napkins, mustard, etc.

Line of

Seen by guest

Visibility

Unseen by guest but necessary to service

Select and buy materials and supplies

Source: Adapted from G. Lynn Shostack and Jane Kingman-Brundage. 1991. Reprinted with permission from *The AMA Handbook of Marketing for the Service Industry*, published by the American Marketing Association. How to Design a Service, Carole A. Congram and Margaret L. Friedman (eds.), p. 244.

The work-cycle times are calculated from carefully studying the process. The customer time tolerance is calculated by carefully studying the customers. The entire finished schematic clearly shows the planned sequence of activities and the measures for each step in the cycle of service. The blueprint becomes an easily communicated picture for analysis of the entire service cycle.

Obviously, this example is both simple and incomplete. The excellent regional manager or staff guestologist for a string of hot dog stands would want to extend this schematic to include the events that happen before the hungry customer arrives. The regional manager might start at the point where the overall strategy for the hot dog stand was established in the first place. Doing so would allow the manager to see all the other influences that have an impact on the total hot dog purchase experience, from establishing the nature and appearance of the sign that initially attracts the customer to the hot dog stand, to the many other intangible and tangible aspects of the actual hot dog experience. Smart managers start off their planning of the service delivery system by surveying their customers to determine the key elements of the experience from the customer's perspective. Once those key drivers are determined, the delivery system can be designed to ensure that the customer's expectations regarding those key drivers are met or exceeded. Once again, the customer drives system design.

One final factor necessary to a complete delivery system plan is the points at which customers may fail to do their part in co-producing the experience. A complete delivery system plan needs to account for the possibility that some customers may decline to participate at those points of the service delivery process where guest participation had been designed into the blueprint.

Even for a business that provides a simple service product like a hot dog stand, a service blueprint can identify how long service should take, potential fail points, and the complexity that can exist in the service delivery system.

Image copyright Lori Monahan Borden, 2010. Used under license from Shutterstock.com

Adding Detail to Blueprints

Extending the simple example by incorporating all the fine points of hot dog vending would make for a more complicated but more complete process diagram. The blueprint could go into even greater detail by breaking down each step into even more specific sub-routines (e.g., how long each hot dog should cook, ounces of condiments and their order of application). The blueprint for the hot dog stand would become even more complex if complementary products were added, such as sandwiches, sodas, or ice cream desserts.

Of course, more detail isn't always better. The level of detail should be sufficient to help improve decision making and service quality but should not go so far as to produce

a document too extensive and overwhelming to be of any use. For example, Albrecht tells the story in his book *Service America* about a service blueprint for a frontline bank employee so detailed that it covered thirty-six 11-by-18 pages.[6]

Although the level of detail seen in Albrecht's bank-employee blueprint may seem excessive, extensive detail may be necessary in some situations. When an organization serves huge numbers of people at once, it may have to make extensive use of sophisticated production techniques and a systemization and routinization of the service delivery system, even if the hospitality organization would prefer to deliver the service in a more personalized way. The need to load thousands of people a day onto an amusement park's roller coaster, serve hundreds or thousands of people a day at a McDonald's restaurant or Las Vegas gaming casino, or respond to countless phone calls at a reservations center may require that the service delivery steps be broken down into highly specialized and routinized jobs to make the process as efficient as possible, or to make the process work at all.

The challenging question about those jobs is how to retain the human interaction component in the hospitality experience. The numbers of customers are so large and the service must take place so rapidly that even the most personable employee will find it difficult to achieve a wow interaction with customers each time.

The Universal Service Map

Figure 10-3 shows a **universal service map**, a variant (and, typically, more elaborate version) of a blueprint that can be generally applied to a variety of service situations.[7] It begins, appropriately, with the guest making a reservation. In Chapter 2, on strategic planning, we discussed the importance of a customer-focused strategy, representing the managerial commitment to service excellence that drives everything the organization does, including the service delivery system. Therefore, the process shown in Figure 10-3 reflects a hotel stay from the guest's perspective, not the hotel's.
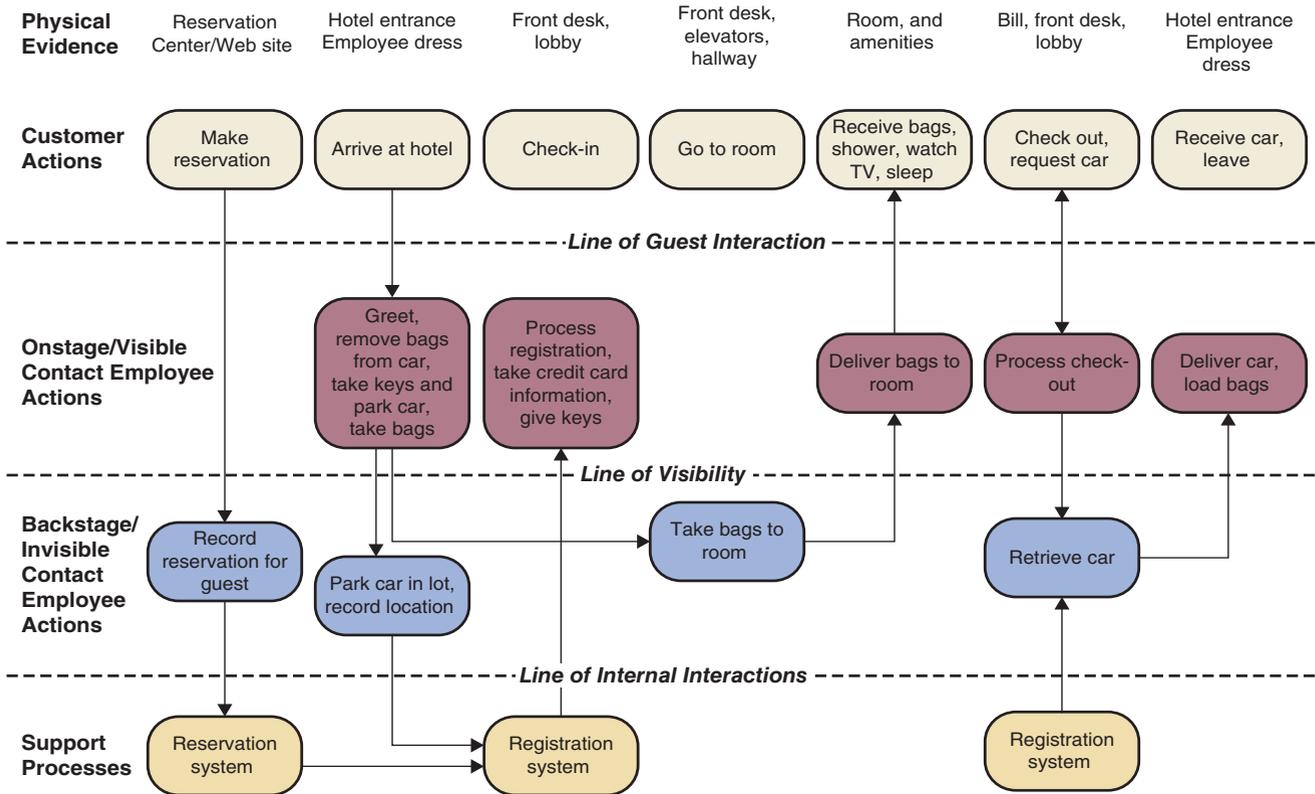
A quick overview of Figure 10-3 shows that the customer is at the top, and the business processes and management are at the bottom. This arrangement is more than symbolic; it shows that the satisfied customer is the ultimate outcome of the process. All the boxes and the lines connecting them merely represent how the organization gets from the initial determination of management strategy to the final outcome of customer satisfaction.

The Line of Internal Interactions

In the universal service map, three horizontal dotted lines divide groups of boxes. The bottom line is the line of internal interactions, representing all the things that must happen inside the organization to produce the service experience. In this group of boxes are the organizational back-of-the-house functions that supply and support the frontline service employee with the product part of the service experience. These would include the reservation system of a hotel, the kitchen for a restaurant, and the underground trash-removal system at the Magic Kingdom. The customer doesn't usually see these activities being performed, but their impact on the service experience is nonetheless considerable. Moving trash in the Disney theme parks is a good illustration. Since dirt, trash, and clutter interfere with the fantasy, Disney has designed a way to remove it without customers noticing. All trash produced in the Magic Kingdom is dumped into vacuum stations located strategically throughout the park. The trash is whisked away beyond sight of the customers.

FIGURE **10-3** This Universal Service Map, Essentially a Blueprint of the Entire Service Delivery System, Provides a Detailed Analysis of a Customer's Overnight Stay at a Hotel

© Cengage Learning 2012

Physical Evidence	Reservation Center/Web site	Hotel entrance Employee dress	Front desk, lobby	Front desk, elevators, hallway	Room, and amenities	Bill, front desk, lobby	Hotel entrance Employee dress
Customer Actions	Make reservation	Arrive at hotel	Check-in	Go to room	Receive bags, shower, watch TV, sleep	Check out, request car	Receive car, leave

– Line of Guest Interaction –

| **Onstage/Visible Contact Employee Actions** | | Greet, remove bags from car, take keys and park car, take bags | Process registration, take credit card information, give keys | | Deliver bags to room | Process check-out | Deliver car, load bags |

– – – – – – – – – – – – – – – – – – – Line of Visibility –

| **Backstage/ Invisible Contact Employee Actions** | Record reservation for guest | Park car in lot, record location | | Take bags to room | | Retrieve car | |

– – – – – – – – – – – – – – – – – – Line of Internal Interactions – – – – – – – – – – – – – – – – – – –

| **Support Processes** | Reservation system | | Registration system | | | Registration system | |

The Line of Visibility

Next is the line of visibility. This line separates activities that are visible to the customer from those the customer cannot see. The service employee disappears beyond this line from the view of the customer to interact with the back-of-the-house operations. After the server at a restaurant takes an order from the guest, she disappears from view to deliver it to the line cook in the kitchen. Although this part of the service delivery process occurs out of sight of the customer, recognizing this interaction between server and cook as a category of activities is important because service failures at this point are frequent. Problems arise when the server does not take the time to write down the entire order and assumes that the cook will know what to do, or when the convention manager forgets to tell the food and beverage department all the details about the time and length of the convention food break. In effect, the back-of-the-house people must think of the servers as their guests or customers, and vice versa, and do the best they can to serve their needs just as the front-of-the-house people serve the guests. In these interactions between servers and support staff lie many opportunities for communication problems and system breakdowns. They require as much managerial time and attention as the encounters between the guests and the front-of-the-house servers.

The Line of Guest Interaction

The uppermost dotted line is the line of guest or customer interaction. It separates those things the customer does in the service experience from those that the service employee does. These are the points of interaction between the provider and the customer at which

the customer becomes, in effect, a co-producer of the service experience. It is the point where passengers respond to the flight attendant's instruction to look around and pick up all their personal belongings before leaving the plane, or where the customer drives forward to pick up the food order at the McDonald's drive-through window. The activities above this line are also the point where customers decide about the value of the experience, which in turn decides whether or not they will return. By noting the activities above the line of guest interaction, the service manager can identify the critical events— the *moments of truth*—that influence this all-important decision process by the customer. By focusing on these actions (making the reservation, arriving at the hotel, checking in, checking out, etc.), the manager can do whatever is possible to influence the customers' experiences so that they decide to return.

Fishbone Analysis

While planning the delivery system, if a widespread and possibly system-wide service delivery problem is foreseen, as opposed to a more localized service failure, one technique that may be used is a cause-and-effect analysis, in the form of a **fishbone diagram**.[8] It provides a way to concentrate on the problem areas to avoid or recover from faulty service outcomes. The results of fishbone analysis are often used to make major changes in the delivery system.

Late Departures at Quickconnect Airlines

Figure 10-4 shows an application of **fishbone analysis** to a problem at a hypothetical regional connector airline, Quickconnect Airlines: too many planes departing late. That problem becomes the spine of the fish in the diagram. The general areas within which problems that could delay flights might arise are attached as bones to the spine. For example, "equipment" is required to get the planes off the ground on time and so becomes a potential source of delay. All the possible contributors to an equipment failure then become bones attached to the equipment bone, and so on with each resource and potential problems with it. The potential contributors to failure are typically identified through group discussion with the employees involved; they should know the reasons for late departures. Quickconnect's employees should be able to readily identify the possible trouble spots.

Resource Categories

The resources required for airplane takeoff can be categorized as equipment, personnel, procedures, supporting services and other. They are attached to the spine of the diagram. Within any one of them, a problem might arise that could cause the undesirable effect: late departures. Proceeding with the fishbone construction, the potential problems associated with each resource would then be identified, listed, and prioritized by the employee group working on this problem. This prioritizing technique, known as **Pareto analysis**, calls for arranging the potential causes of the problem based on the frequency in which they occur.

Table 10-3 presents an example based on actual transportation statistics from the Federal Aviation Administration (FAA), but for our hypothetical airline. The data representing the percentages of late flights associated with each cause are listed next to the cause in their order of frequency. The Pareto analysis reveals that about 90 percent of all late takeoffs are caused by only five of the approximately thirty possible causes listed by the FAA. The most frequent reason for delay at all airports combined was late arriving aircraft, at 36.2 percent, followed by late passengers (at 30.7 percent). The remaining causes, all contributing to fewer than 10 percent of the delays, include waiting for pushback, waiting for fueling, and mechanical problems with planes. These results revealed that the second leading cause of delays was due to giving preferential treatment to the passengers who least deserved it: those who arrived late for flights.

FIGURE **10-4** Fishbone Analysis: Reasons for Departure Delays
for Quickconnect Airlines

© Cengage Learning 2012
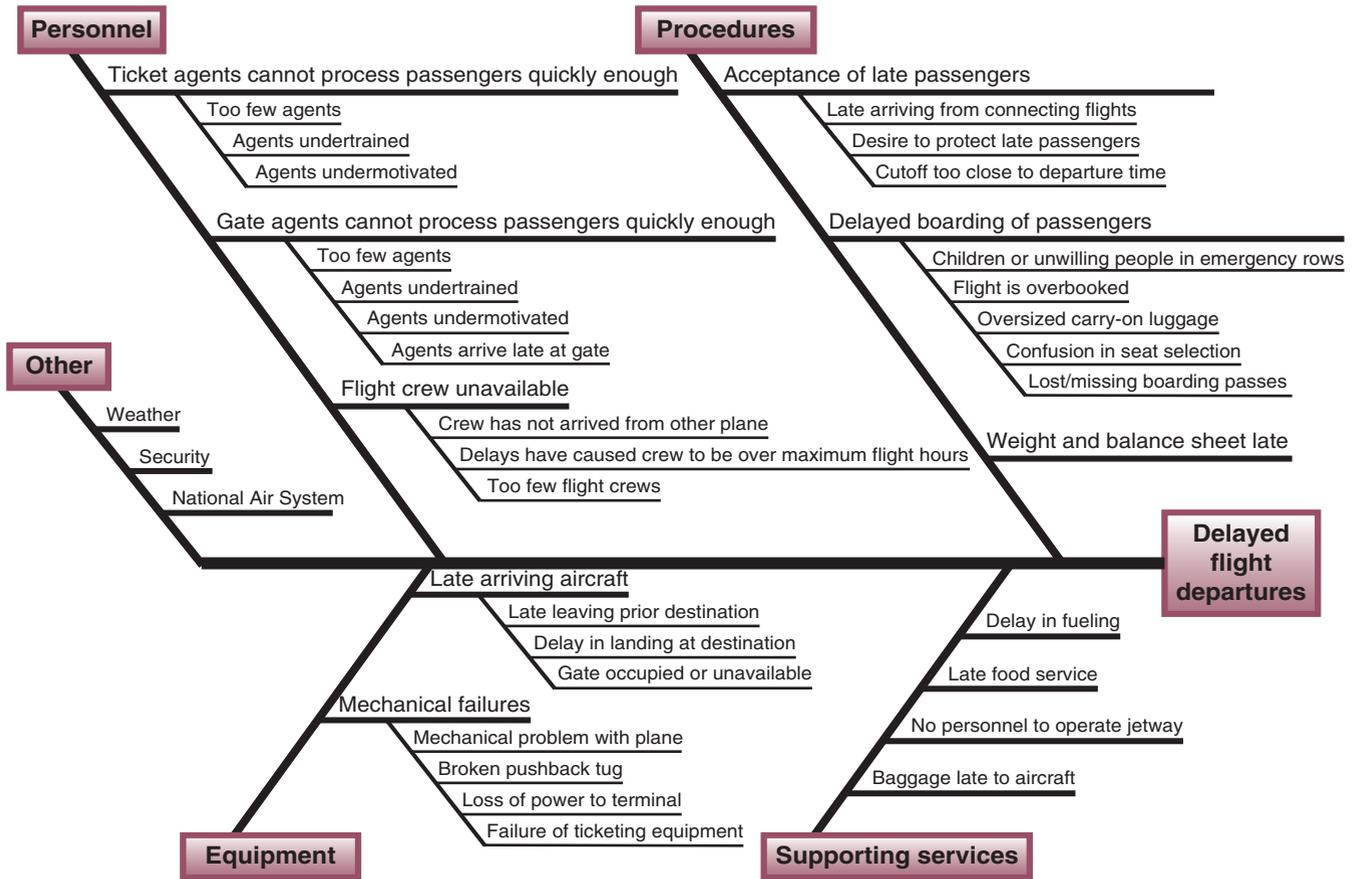
Airport Data

The data can also be analyzed by individual airports to see if the overall problems are the same as those found in each individual airport. As the data show, both the percentages and the reasons for delay at the Newark airport are different from those seen at the other airports. The fifth most frequent factor at Newark, "no personnel to operate jetway," does not appear as a problem for Washington Reagan, where "mechanical problem with plane" is a problem, one not found at Newark. By arranging the information in this way, managers looking for causes of service delivery failures have an easy-to-use analytical tool. For each potential failure point, they merely collect and arrange the data that the fishbone categories tell them to gather. Recognizing the problem—late flight departures—is the first step in improving the service delivery system, but then you must find out what caused the problem—late arriving aircraft and late passengers. You can't fix a problem if you don't know what caused it.

No More Waiting

Once the impact of late-arriving passengers was identified, the airline could decide that flights would no longer wait for them simply because they couldn't get to the airport on time. While this solution might contradict the airline's commitment to service, and gate

TABLE 10-3 **Pareto Analysis of Flight Departure Delays**

ALL STATIONS EXCEPT HUB			NEWARK			WASHINGTON (REAGAN NATIONAL)		
Cause of Delay	Percentage of Incidences	Cumulative Percentage	Cause of Delay	Percentage of Incidences	Cumulative Percentage	Cause of Delay	Percentage of Incidences	Cumulative Percentage
Late arriving aircraft	36.2%	36.2%	Late arriving aircraft	41.7%	47.1%	Late arriving aircraft	32.9%	32.9%
Late passengers	30.7%	66.9%	Late passengers	10.7%	52.4%	Late passengers	19.0%	51.9%
Waiting for pushback	8.8%	75.7%	Waiting for pushback	10.6%	73.7%	Waiting for pushback	19.0%	70.9%
Waiting for fueling	6.6%	82.3%	Waiting for fueling	10.7%	63.0%	Waiting for fueling	5.4%	87.2%
Mechanical problem with plane	5.1%	87.4%	No personnel to operate jetway	7.2%	80.9%	Mechanical problem with plane	10.9%	81.8%
Weather	5.0%	92.4%	Weather	5.2%	92.8%	Weather	9.8%	97.0%
Security delay	0.4%	92.8%	Security delay	6.7%	87.6%	Security delay	0.1%	97.1%

Source: Reprinted with permission of the Cornell H. R. A. Quarterly © Cornell University. All Rights Reserved.

agents naturally would want to help out late-arriving passengers, the airline was denying on-time service to the many passengers who made sure to get to the airport on time. By setting up this fishbone and comparing the survey data against the key factors, the airline could identify the problem and discover a solution that worked: don't wait on anybody. Of course, that solution might cause a customer-relations problem with late arrivals, but the airline might be willing to pay that price. Indeed, it is likely when the word gets out that the airline will not wait any more for late passengers, fewer passengers will arrive late. Furthermore, given that late passengers were a notable problem at non-hub airports, eliminating this cause of delays could actually lead to more on-time aircraft at hub airports, and thus a decline in the primary cause for late departures at these airports as well.

The individual parts of any delivery system can be broken down in the same way to discover the equipment, people, procedures, supporting services, and other factors that contribute to a service problem. Once managers measure each factor's contribution to the problem, finding a solution is relatively straightforward.

PERT/CPM
Building a Patio

Let's say you want to build a backyard patio for your new barbeque grill. You could design the patio with pencil and paper, go buy some bricks and landscaping timber, go out back to dig the foundation, realize that you don't have a shovel, go buy one at the hardware store, start digging the foundation, and, while you are doing that, have a chat with a neighbor who tells you that you need permission from the Neighborhood Homeowners Association before you can build a structure of that size on your property. Hospitality organizations obviously cannot operate that way. They cannot afford to start building a hotel

and then find out that the county zoning ordinance will not allow it. When the planning and delivery of the service product involve different activities, and especially when those activities recur in a repeating cycle (like planning a convention or golf tournament), a helpful technique to use is PERT/CPM.

PERT/CPM Defined

The **PERT/CPM** planning technique, frequently used in the construction industry and the military, has many points of application in the hospitality industry as well. PERT stands for Program Evaluation Review Technique and CPM for Critical Path Method. Because these two techniques are similar, they have been merged into a single planning strategy and device referred to as *PERT/CPM*. PERT/CPM offers the benefits of any good planning tool. It provides to the manager a detailed, well-organized plan combined with a control measurement process for analyzing how well the plan is being executed. PERT/CPM is useful in planning major projects such as hosting a convention, building a convention center,[9] or opening a new hotel. PERT/CPM can also be used to plan a wide variety of smaller repetitive projects that have a beginning, an end, and a whole lot of things that must happen in between.

The steps in the PERT/CPM process are (1) identifying the activities that must be done to complete the project, (2) determining the sequence of activities, (3) estimating how long each activity will take, (4) creating and diagramming the network of activities, and (5) finding the **critical path**, which highlights the sequence of activities where no slack time is available and everything has to happen as planned or else the project will be delayed. The successful use of the process may depend on the accuracy of the estimates made in Step (3), and they are not always easy to make.

The Diagrams

Using a PERT/CPM diagram like that seen in Figure 10-5 allows the service manager to achieve several important objectives. First, the manager gains all the usual advantages of planning. Unforeseen events and activities can be identified. How long something will take to do is readily estimated. Everyone involved in the project has an easily understood picture, in the form of the PERT/CPM chart, that shows all the pieces of the project, the sequence in which they are laid out and must be accomplished, time estimates for finishing each project step, and the total time for completing the entire project. Finally, the PERT/CPM chart shows the items that must be done on time to get the project accomplished as scheduled, which activities can be done at the same time as other activities, and which must happen before others. PERT/CPM can be used to plan any activity that takes time, and it would be hard to find any service experience that doesn't take time.

Circles and Arrows

PERT/CPM diagrams are simple to create. They consist of circles or bubbles, representing completed events, and arrows representing the activities that must be done before an event can be considered completed. The arrows connect the circles, and the arrow points to the event for completion of which the activity is necessary. In Figure 10-5, Event 1 must be completed before work can be begun on activities leading to completed Event 2, and the same is true of Event 3. Only after completing Event 3 can work begin on Events 4, 5, and 6, which can be worked on independently of each other. Event 13 has three arrows pointing toward it, signifying that completion of Event 13 will first require completing Events 9, 10, and 12, and then completing the activities following them and leading up to Event 13. As the chart shows, Events 9, 10, and 12 themselves require that prior activities and events must be

FIGURE **10-5** A Simple PERT/CPM Chart
© Cengage Learning 2012
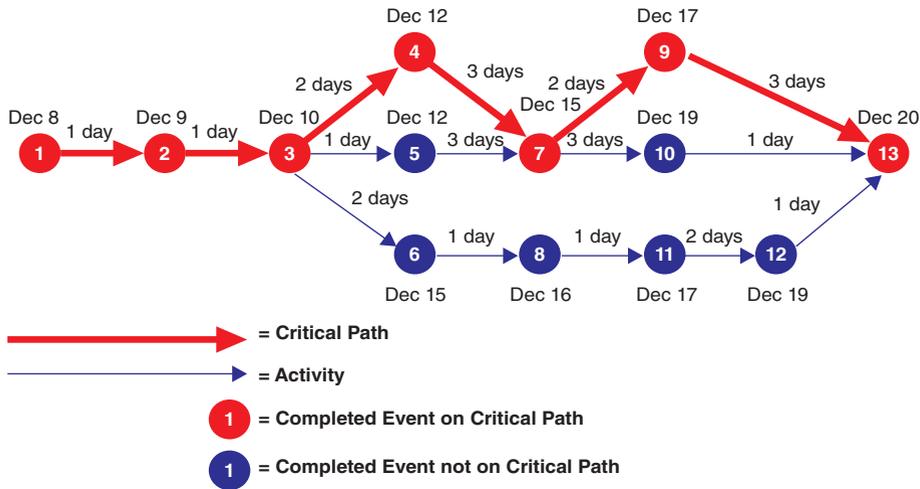
completed before their own completion. The critical path indicated in the chart will be explained in more detail below, but, briefly, it is the sequence of events that must occur on time if the project is to be completed on time. It has no "slack" time (i.e., any time difference between when an event is scheduled for completion and when it must be completed for the entire project to end on time) in it as the other two paths do.

Tony's Deli

Let's leave abstract events and think about the new delicatessen Tony wants to open. The final event in the sequence, the final circle on his **PERT/CPM chart**, will be "Opening Day." One activity arrow leading up to that circle might be labeled "Hold three staff training sessions." But before those training sessions can be held, several other activities and events must take place. Tony must find a place to hold training, order training materials, hire and prepare a trainer, and hire the new deli personnel. Some of those activities can be done simultaneously. Their conclusion might be indicated in the diagram by a circle labeled "Preparations for training sessions finished." Also included in the diagram would be estimates of how long each activity will take. Summing the activity times will give Tony a pretty good estimate of how long it will take to have his delicatessen staff trained and available.

Complicated PERT/CPM networks are usually done on a computer. If organizations cannot afford to do their own programming, they can use off-the-shelf PERT/CPM computer programs. The owner of a small service organization might plug in the service delivery system's essential elements, and the computer will figure out the math and draw a schematic of the network.

Building the Network

Five steps are required to build a PERT/CPM network.

Step 1: Activity-event analysis.   The manager defines all events that must occur for the project to be completed, and all activities leading up to those events. The real fruits of the planning process occur at this step. By taking the time and making the effort, the manager can detail every activity in the project and uncover every step that must be taken.

Step 2: Activity-event sequencing. Once the manager has defined the activities and events that must at some time occur, they can be placed in their proper sequence. Developing the sequence may reveal previously undiscovered or unknown events that must be scheduled. If you are describing how to tie a shoelace, you may forget event number one—that you must first have a shoelace—unless you sequence the process step by step.

Step 3: Activity time estimates. The next step is for the manager to estimate how much time each activity will take so that an expected time for completing each event and the entire project can be calculated. The manager can use a simple and often-used formula to arrive at a weighted-average time estimate for each activity:

Expected time = (optimistic time + 4 times most likely time + pessimistic time) divided by 6

Step 4: Diagramming the project. After all the events are sequenced, the activities detailed, and time estimates for each activity made, the pieces can be put together into the total-project diagram. As seen in Figure 10-5, each activity and event is set out in the diagrammed network along with the expected times.

Step 5: Identifying the critical path. By summing up the activity times across the paths leading to the project completion, the manager can estimate the total time for completing the project and can identify the *critical path*, the CP of PERT/CPM, the sequence of activities that leaves no slack time. If these events don't happen on time, the project won't be finished as scheduled. Other paths in the network may have a time difference between when the events must happen and when they are scheduled to happen based on the calculation of activity times. In Figure 10-5, Event 6 must happen on December 15 or the entire project will get behind schedule, but Event 6 is scheduled for completion on December 12, so the project manager has some slack time. Even if Event 6 takes five days to complete instead of two, the delay won't affect the project completion date. Slack time also represents an opportunity to shift resources and attention away from events that finish earlier than they must and toward activities that need help.

The Big PERT/CPM Picture

In addition to showing the critical path, the projected completion time for the project, and the complete sequencing of activities needed to get the project done, the PERT/CPM network diagram provides a terrific visual of what is involved in the project. Using the diagram, the manager can show everyone what the whole project looks like, what each person's part in the project is, when each activity needs to be done, which activities are critical, and which events precede or follow each person's job. Even more helpful is that the manager now has a complete model that can be used to test what might happen under a different array of assumptions. What will happen, for example, if some of the pessimistic time estimates come true (whatever that could go wrong, did go wrong)? The PERT/CPM network diagram gives the manager an easy and quick way to substitute new numbers and revise the time schedule for total project completion if necessary. Obviously, every major project involves a whole lot of uncertainties. With this tool, however, the manager can plug in the uncertainties and refigure their impact on the project if they occur.

Holding a Convention

The PERT/CPM diagram in Figure 10-6 represents the steps necessary to prepare for and hold a convention. Convention manager Dorothy Barker went through all the steps noted above to determine the activities, their sequence, and the time estimates. Then she set up

FIGURE **10-6** PERT/CPM Chart of the Steps Needed to Hold an Annual Convention

© Cengage Learning 2012
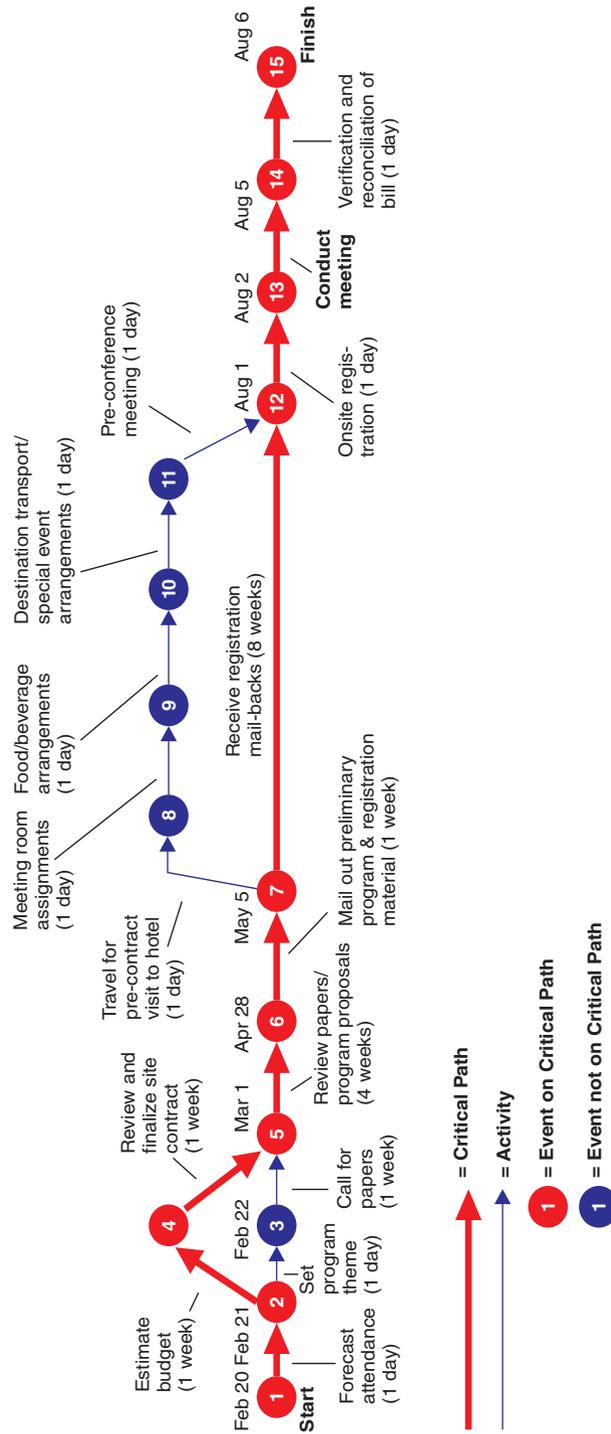
the PERT/CPM network to show the customer, the hotel staff members who will be critically involved in providing convention services, and herself all the things that must happen to complete a successful convention. This diagram can serve as a daily planning guide; it can be hung on the wall to show everyone what activities they need to accomplish each day. Since most convention managers have responsibility for more than one convention at a time, having these pictorial representations for each convention can help tremendously in keeping track of all the activities that each convention requires. A well-constructed and complete PERT/CPM chart can be used repeatedly because conventions generally have the same events and follow the same sequence of activities. The same would be true for servicing an airplane, for planning a restaurant or hotel opening, or a particular cruise in a cruise ship's annual schedule.

PERT/CPM can be used for any event, process, or experience that has a definable beginning and end to describe and detail the sequence of activities that must occur to complete all steps on schedule. Since the activities of hospitality organizations are often sequences or processes with a beginning and an end—from cooking and serving a meal, to cleaning and preparing a room for the next day's guests, to the entire guest experience itself—there are many possible applications of PERT/CPM to service situations.

Potential Disadvantages

The PERT/CPM process assumes that the activities leading to a project's completion are independent and can be clearly defined. That is not always the case. Also, the process depends on the accuracy of the time estimates. Since time estimates are made by fallible human beings, they may be incorrect, and it does not take many incorrect time estimates to throw off an entire project.

Simulations

A **simulation** is an imitation of the real thing. It may be doodled on a piece of paper with a pencil, or it may be done on a computer. Some simulations are big, like a computerized simulation of Epcot, and some are small, like a role-playing exercise at a company training session. Some simulations can consist of professional actors simulating the guest experience to show the observing employees and managers where problems in service delivery can occur. These simulations can reveal problems that the people who work there may not have thought about. They can also improvise customer mistakes to see if the system has safeguards built in to keep the customer from failing in the co-production experience or, if a failure does occur, to keep the customer from irreparably harming the value and quality of the experience. Organizations can use a wide variety of simulations when planning the service delivery system.

Computerized simulation techniques are the most sophisticated. They allow incredibly detailed simulation of a service delivery system and provide ways to measure and manipulate the system to see what might happen under different assumptions. Computers can also simulate behaviors of customers—with their infinite needs and ranges of behavior—on the receiving end of the system. The unique challenge in service delivery is that each customer is different. Because predicting exactly how any one customer will behave within the service experience is almost impossible, the opportunities for system failures are tremendous. Simulating customer behavior allows for a better comprehension of how that variability in customers affects the system's ability to deliver the service consistently at the expected level. Across the entire service experience, simulation can identify problems created by both the organization—in service design, environment, and delivery—and the customer.

At Epcot

Walt Disney World Resort used a computerized simulation model of Epcot during the planning and design of the park. Different patterns of guest behavior were modeled to make decisions about park capacity and where individual attractions, rest rooms, food-service facilities, and retail stores should be located. After the park opened, refinement and adjustment of the simulation model continued.

No one can know what any single guest might do inside the park during the course of a day, but knowledge of guest behaviors and statistical probabilities can yield relatively accurate predictions of how large groups of guests will behave. Probability distributions for all possible Epcot guest behaviors were developed and then built into the model. The resulting simulation accurately reflected the movements and behavior of a day's guests as they progressed through the park. The simulation model was then used to test and optimize such planning decisions as the location, size, and capacity of the attractions, restaurants, merchandise shops, and other facilities.

The Odyssey Restaurant

Here is a specific example of how the Epcot simulation led to a surprising discovery. In the early days of the park's construction, simulation runs were done to predict how guests would use Odyssey Restaurant, a large fast-food facility being built on an island in the lake between the Future World attractions section of the park and the World Showcase section. Studies had clearly shown that guests look for food near the exits of whatever attraction they happen to be leaving during peak mealtime periods. Since Odyssey Restaurant was somewhat remote from the exit of any attraction, the model predicted that rather than go to Odyssey, guests would head for the nearest fast-food locations placed at the exits of the Future World and World Showcase attractions. Unfortunately, there was not enough time to use the results of the simulation and relocate Odyssey. It opened and even though a bridge was constructed to make Odyssey more accessible, few guests used it—exactly as the simulation had predicted. Today, the facility is used for other purposes.

Computer Simulations for All

Not every organization will have the volume of customers to justify or pay for the creation of a full-scale computer model to study the service delivery system in detail. Nonetheless, with the increasing availability of computing power and smaller, more user-friendly software packages, even a Ralph's Restaurant on the corner may have economical access to a computerized simulation package. Simulations can be used for a variety of tasks, such as determining the optimal mix of tables in a restaurant,[10] scheduling tasks in a cafeteria,[11] or determining how many allergy-friendly rooms a hotel should have in its rooms inventory.[12] Already available to smaller service organizations is a computer program called a general-purpose system simulator (GPSS), which organizations can use to simulate their delivery systems. Even more widely available is Microsoft's Excel program, which can be used to create some types of simulations. Many simulations are focused on modeling and predicting waiting lines or queues, which is the subject of Chapter 11.

TARGETING SPECIFIC PROBLEM AREAS IN SERVICE DELIVERY SYSTEMS

Much of the planning process we have discussed in this chapter is designed to *make something good happen*: a wow service experience. Such planning deals with the entire service system and how the functional components work together to deliver the guest experience

that customers want and expect. This planning is indeed critical to deliver an exceptional service experience by integrating all elements of the process. An equally important part of planning is to *keep something bad from happening:* problems and service failures. Such techniques as fishbone analysis and PERT/CPM charts can identify actual or potential problem areas in the system. In this section, we address some of the tools to plan for common delivery-systems problems before they occur since the best way to keep something bad from happening is to prevent it.

"A sandwich tossed is better than a customer lost." Arby's knows that their standard for tossing out sandwiches after they sit for a specific number of minutes not only prevents problems from occurring but also is less costly than recovering from an unhappy customer who got the poor-quality sandwich. Successful organizations use such strategies to identify and fix trouble spots before they become a problem for their guests.

Forecasting Demand to Prevent Problems

A major function of planning is to prevent problems. One strategy is forecasting and managing demand, which we will discuss in greater detail in Chapter 11. For example, if an analysis of the service delivery system indicates a potential service problem caused by excessive waits, a statistical analysis that forecasts demand might be an effective tool for discovering how much of a problem the waits might be and what can be done to address them before the doors open for the first customer. If a statistical prediction of the customer demand for a theme park on a particular day indicates that the park will be full, a preventive strategy will lead to the park's management calling in full staff, preparing extra food supplies, and having available the full capacity of each attraction. Restaurants may require reservations when the projected demand is high. Having a reservation system means that customer demand can be better matched with restaurant capacity and guests will not be disappointed with waiting when they come to the restaurant. In addition, the restaurant can know the number of diners to expect so that it can staff appropriately and have sufficient amounts of prepared items to ensure that the dining experience is enjoyable and trouble free. If the restaurant fails to plan, and customers are disappointed with a long wait, slow service, or out-of-stock menu items, their perception of the quality of the overall service experience will be poor, and a service failure will result. It is not uncommon to see Internet posts like "Good dinner, fair price, but I had to wait too long. I don't think it's worth the wait and don't see what all the hype's about. I'd suggest you go somewhere else." Keeping the wait down avoids that type of failure.

If the demand can be forecasted for a longer period of time, other proactive strategies can be implemented. If demand for the next quarter or next year, for example, is expected to increase by 20 percent, new capacity can be built, new employees hired and trained, and merchandise inventories increased to ensure that customers are not disappointed by long lines, unavailable souvenirs, or untrained and inadequate staff.

Training

Adequate training of employees before they ever get the chance to serve a customer can prevent failures. We discussed training in depth in Chapter 6, but the importance of training is worth repeating, not just for delivering the service product, but also for preventing service problems before they occur. For example, Olive Garden has all its employees available at least ten days before an opening to allow plenty of time to familiarize the new employees with the Olive Garden menu, standards of service, product offerings,

and each other. By the time a new Olive Garden opens, the trained waitstaff knows the products they are serving, the systems for providing the Olive Garden experience to the guest, and the other members of the restaurant team.

The people who deliver any service need to know exactly what the total experience should consist of and need to be motivated to ensure that the guest experience happens in the way it is supposed to, every time, for every guest. Just as hospitals run disaster drills in conjunction with fire departments and rescue teams to prepare for unexpected, randomly occurring disasters, so can hospitality staff be trained, through practice, to handle both the expected and the unexpected.

Quality Teams

The use of quality teams is another preventive strategy. Recall how the Ritz-Carlton employees solved their service delivery system problem of late room-service breakfasts and how quality teams at the Quickconnect Airlines used a fishbone analysis to solve departure delays. Both show the value of letting the people directly involved in the service experience get together to identify service delivery system problems and recommend solutions to prevent their recurrence. Quite often, no one is in a better position to foresee and prevent problems than the people who have already experienced a wide range of problems and seen first-hand guest frustration with those problems.

Poka-Yokes

Trying to fix a problem once a customer has experienced it may be too late, so any devices or processes that can fail-safe the service delivery system or any part of it against human error are extremely desirable. Conceived by the late Shigeo Shingo, a Japanese quality improvement expert, **poka-yoke** (POH-kah YOH-kay)—the name Shingo gave these failure-preventing devices or procedures—means "mistake proofing" or "avoid mistakes" in Japanese. A poka-yoke basically involves inspection of the system for possible failure points and then finding or developing simple means to prevent, or immediately detect and correct, mistakes at those points. A poka-yoke is a proactive or preventive strategy for avoiding mistakes. Although it originated in the manufacturing sector, it can be used in planning and monitoring the service experience to keep it operating as flawlessly as possible.

Poka-yoke techniques can be of several forms, such as mechanical, electrical, or human. Since both the server and the customer can make mistakes during the service experience, both parties need to be mistake-proofed to the extent possible.

Here are some simple poka-yoke examples. Automobiles have many poka-yokes. To ensure that cars don't start moving when the ignition is turned on, the car is designed to not start unless the driver has a foot on the brake. Likewise, there are devices that prevent you from shifting a car into reverse when it is moving forward and devices that keep intoxicated drivers from starting their cars. Everywhere you look you can see examples. To ensure equity of service order and avoid disagreements, organizations ask customers to "take a number" or make a reservation. A surgeon's tray and a mechanic's wrench-set box may have a unique indentation for each item to ensure that no instrument is left inside a patient following surgery or wrench in an engine. Restaurants now buy different colored knives and cutting boards to prevent cross-contamination of food: Blue for fish, yellow for fowl, green for vegetables, and red for meat make it immediately apparent to all what should be on the cutting board and which knife should be used to cut it.

Types of Inspections

Shingo identified three types of inspections. In the services industry, they would be *source inspections*, in which potential mistakes are located at their source and fixed before they can get into the delivery system, *self-inspections*, in which people check their own work, and *successive inspections*, in which the person next in the service delivery system checks the quality and accuracy of the previous person's work. Mistakes can occur and poka-yokes can be used in all these inspection types.

An example of a source inspection is the chef monitoring the preprepared foods—such as salads, boned chicken, or whatever must be assembled in advance of the rush hour—to ensure that sufficient quantities of the items are available. An example of a self-inspection is the line cook personally comparing the order he has prepared against a picture of what the food display should look like before putting it on the service counter. An example of a successive inspection is the food server in a restaurant checking the food order on the counter before taking it out of the kitchen. Obviously, the closer to the source that errors or potential errors can be detected, the better.

Warnings and Controls

Poka-yokes are either "warnings that signal the existence of a problem or controls that stop production until the problem is resolved."[13] The *warning poka-yoke* occurs before an error is made. The *control poka-yoke* keeps a process from beginning or continuing after an error is made. A warning poka-yoke would be a light that flashes when the fries are ready to come out of the fryer. It signals the operator to remove the fries before they become overcooked. A control poka-yoke would be a device that turns a microwave oven off whenever the door is opened.

Warning and control poka-yokes can each be of three types. *Contact* poka-yokes monitor the item's physical characteristics to determine if they meet predefined specifications. Some restaurants cut their meats on scales to ensure that each cut is of the right weight before cooking. The second type of poka-yoke is based on the use of *fixed values* or constant numbers. It is used when a certain step is repeated—such as frying french fries—to ensure that the step is done the same way every time. McDonald's knows that a certain poundage of fries must be put in the fryer to make the fries taste the way McDonald's wants them to, so it designed a prepackaged bag containing a fixed value of potato pieces to ensure that the right quantity is placed in the fryer every time. The third type of poka-yoke is the *motion step,* or sequence method, used when more than one step is involved. This poka-yoke is useful in processes where an error-prone step must be completed correctly before the next step can take place. A simple example is the pop-up temperature gauge found in many turkeys. If the red button doesn't pop up, the turkey isn't done to the right temperature, and the turkey cannot move a step forward for further preparation until it does.

The tangible parts of the service experience can be mistake-proofed by poka-yokes just as readily as the tangibles in a manufacturing process. Preventing and quickly correcting service failures in the intangible aspects of service delivery is more challenging. Many service organizations try to avoid server errors during interactions with customers by standardizing or scripting what servers say and do during the service experience. These standards or scripts are poka-yokes designed to fail-safe the service delivery process. To whatever extent the servers can be prevented from making mistakes in routine aspects of the service by poke-yokes, it will reduce failure rates, and allow the servers to focus their efforts on the more creative, individualized aspects of guest service.

Poka-Yokes for Customers

Customers add a further complication to the service delivery process. They are frequently right in the middle of it and often responsible for co-producing it. Poka-yokes can be included to enable customers to prevent their own problems. For example, customers are irritated by a frequent fast-food service failure: leaving the drive-through only to find that they were served the wrong order. To avoid these failures, Burger King has installed poka-yoke video displays, called order confirmation units, at its drive-through windows so customers can verify the accuracy of the orders they are about to receive.

Customers can be prepared to do their part without error even before the service experience begins. The popular sign "No Shirt, No Shoes, No Service" prevents a customer error relating to attire and avoids the embarrassment for the customer and the organization of asking an improperly dressed customer to leave. During the service experience, the organization can develop poka-yokes to signal customers to do the right thing and avoid doing the wrong thing while co-producing their experience.

Speed Parking

Another example of a poka-yoke designed to help customers avoid failure is the speed-parking technique. Often seen at events where a lot of cars arrive at the same time, this system has the drivers line their cars up and park in successive spaces under the direction of a parking attendant. Each row is filled before cars go to the next row. This parking method is fast; it keeps all cars facing the same way and in line to park in the next available space. The method has led to the creation of a poka-yoke at some theme parks and other large attractions. When guests stream into the park every morning, the parking attendant writes down the time each row is filled. When evening comes and a family shows up lost and uncertain as to where their car might be, the attendant pulls out the poka-yoke—a list of what sections were parked at what time. The attendant asks the family about what time they arrived at the parking area, then uses the list to locate the car. The poka-yoke prevents a guest-caused failure that could ruin the day's experience.

All poka-yokes should be simple, easy to use, and inexpensive. Human error can occur at many points in most service delivery systems, so poka-yoke is a useful concept in identifying something wrong and halting delivery until it is made right. Even if organizations do not use the term *poka-yoke*, they should keep the concept in mind. They should look for potential error sources as they plan the delivery system and should introduce means of preventing errors, if possible, and detecting errors quickly if they do occur.

A final point, emphasized by Shigeo Shingo, is that the end purpose of poka-yokes is not simply to find and prevent errors, valuable though that may be, but *to use error detection to improve the system*. If the causes of service errors are not located and the system not improved, their number may not be substantially reduced in the future, regardless of how many poka-yokes are introduced.

Cross-Functional Project and Matrix Organizations

Sometimes, the problems in delivering a service experience can be traced back to the design or structure of the organization itself. A functionally organized hotel, for example, may not consistently provide the service experience defined by its mission if its individual departments focus on their own individual goals and objectives rather than on guest satisfaction across the entire experience. A guest doesn't care about the rooms division manager's goals and challenges or the food and beverage manager's problems and concerns.

Guests care about the quality and value of the entire experience they are paying for, and the individual organizational components need to be effectively connected in ways that unite them to focus everyone on ensuring guest satisfaction.

It may be helpful to consider the organization itself as an element of the service delivery process that effectively integrates and coordinates the activities of people working in different departments. Is the organization designed so that individual departments perform their functions smoothly, or is it designed so that the overall service delivery system functions smoothly? The two are often not the same.

One method of organizing people and groups to enable them to focus on the guest's needs, wants, and expectations across the boundaries of functional organizational units is by creating a temporary **cross-functional structure**. This term is also used to refer to a matrix structure where a group or project team is overlaid on the traditional functional organizational structure to work on a specific task or serve a particular customer for a limited time. Traditional organizational structures are characterized by a single line of authority running from top to bottom: You report to one person; that person reports to somebody else. This also tends to mean information flows in one direction: from the top down. A cross-functional organization is characterized by multiple lines of authority. You may report to more than one person; that person may do the same.

In hospitality organizations, many situations arise that call for focusing everyone's functional skills on solving a guest's problem or meeting a guest's expectation right now. Because so many functional areas must work in coordination with each other to deliver a whole service experience, information must flow between different functional groups. For example, a hotel's convention coordinator has to bring together all the functional areas of a hotel to meet the needs and expectations of the convention's meeting planner. In such a case, the convention coordinator acts as a project manager temporarily responsible for ensuring that everyone who needs to serve the customer is available and ready to do so. Cross-functional structures are especially useful in the hospitality industry, and, in fact, in any service-driven industry.

At The Ritz-Carlton

While discussing how The Ritz-Carlton Hotels won the Malcolm Baldrige Quality Award, Horst Schulze spoke about finding a cross-functional organizational solution to identify and correct system flaws. The Ritz-Carlton had used guest surveys to identify eighteen key guest-satisfaction measures. The Ritz-Carlton then hired a process manager for each hotel whose responsibility was to eliminate flaws and reduce work-cycle times by 50 percent in the systems that delivered the eighteen keys leading to guest satisfaction. The keys were deemed so important that this specific person was hired to ensure that someone worried about them all the time, no matter which functional units were responsible for the different keys. The Ritz-Carlton thereby avoided the potential limitations of the functional orientation that come naturally to departments by authorizing the process manager to cross all functional areas to ensure that someone was focused on the hotel's guests and what satisfies them.

Advantages and Disadvantages of Cross-Functional Project and Matrix Structures

To ensure maintaining the same focus on guest satisfaction as the Ritz-Carlton, other hospitality organizations use project teams, matrix structures, and other cross-functional structures. Because these structures generally involve people working under more than one line of authority, some traditional managers who believe that strict lines of authority are important

have problems working with cross-functional structures. On the other hand, crossing functional areas and getting everyone focused on the guest can offer some important benefits. Table 10-4 compares the advantages and disadvantages of these organizational structures.

The Real Boss

Here is the bottom line on organizational design: Use whatever organizational design best enables every unit and every person to focus on the guest's needs, wants, and expectations. The Ritz-Carlton knows this, and Disney knows this. While the organization chart may show functional divisions with different people responsible for different areas like maintenance, front office, and housekeeping, everyone in these excellent hospitality organizations knows that *their real boss is the guest* and that their real organizational function is ensuring that their guest experience meets or exceeds their guest's expectations.

TABLE 10-4 **Advantages and Disadvantages of Cross-Functional Project and Matrix Structures**

ADVANTAGES	DISADVANTAGES
1. *Makes the guest, not the function, the focus.* If one person or team is responsible for satisfying guest needs, the focus of the organization is placed directly on the overall service needs of the guest, rather than the specific element of the experience delivered by any one functional department.	1. *Violates traditional "single line of authority."* Most companies are still organized to have a single and clear chain of command. Implementing a cross-functional structure changes this traditional form of management.
2. *Improved lateral exchange of information.* If multiple functional areas work together, different providers of services will communicate more with each other.	2. *Ambiguity about control.* Because different functional areas are involved, it can be unclear who is ultimately in charge or responsible for certain decisions, either for technical issues or human resource management issues.
3. *Improved vertical exchange of information.* The interactive process needed for cross-functional teams means that information will flow to, from, and through an organization's hierarchy more quickly. Cross-functional structures also lead to flatter (less hierarchical) organizations, with fewer levels through which information must pass.	3. *Creates organizational conflict between functional and project managers.* Even when units work together for certain projects, there are still functional activities that must be completed. Having cross-functional groups can create a conflict between managers of cross-functional teams and managers of functional areas, because they may have different, even conflicting, goals.
4. *Increased flexibility in use of human capital.* When different functional areas work together, it becomes easier to determine where there may be too many people, and where there are not enough employees. A cross-functional structure facilitates the ability of people to work in different areas.	4. *Creates interpersonal conflict.* Cross-functional structures require that individuals with different backgrounds, perspectives on work, time horizons, and goals work together. Such differences can lead to greater interpersonal conflict.
5. *Increased individual motivation and attitudes.* Through a cross-functional structure, individuals have a better sense of the entire service product being delivered. When employees see the entire product, as opposed to just a piece of it, they tend to be more motivated to perform better and have higher job satisfaction, organizational commitment, and morale.	5. *Creates insecurity and loss of status.* With a different organizational structure, some managers will lose some authority as more responsibility is given to cross-functional groups and project managers. This can reduce the perceived status of functional managerial roles and make some managers insecure with their reduced authority.
	6. *More costly for organization.* Cross-functional structures can lead to increased overhead and staff, more meetings, delayed decisions, and more information processing. All this can add to organizational costs.
	7. *More difficult for individuals.* Individuals working in cross-functional structures will face greater role ambiguity. Potentially conflicting instructions or orders may lead to personal stress.

© Cengage Learning 2012

LESSONS LEARNED

1. Check for system failure (e.g., not enough elevators; too many monorail trains) before blaming people.

2. Detailed planning can avoid most service failures.

3. Plan for guest failures and how to recover from them (more on this idea in Chapter 13).

4. Design the organization to ensure service excellence.

5. A bad system can defeat a good employee.

6. The goal: Fail no guest; delight every guest.

7. Problems will recur if you can't or don't find out what caused them.

8. Identifying problems is more than just fixing a single guest experience. It is an opportunity to improve the service delivery system.

9. Everyone is responsible for monitoring and maintaining the quality of the service delivery system; everyone is responsible for avoiding service failures.

10. There are many planning tools to help deliver excellent guest experiences. Use them as much as possible.

REVIEW QUESTIONS

1. Why is it important to check the delivery system first before checking to see whether employees are to blame for service failures?

2. Recall two types of hospitality organizations with which you are familiar.

   A. What people and nonpeople parts of each organization's service delivery system can you see? Not see?

   B. What steps does each organization take to ensure that you cannot see certain parts of the delivery system, and why does it take those steps?

   C. Are any parts of these two organizations' service delivery systems (e.g., the frontline server) more important than other parts? Or are all equally important because a service delivery system is only as strong as its weakest link?

3. If you opened a new restaurant, would you bother to blueprint your service delivery system? Why or why not?

   A. If you did a blueprint, would you show it to your employees and discuss it with them, which would take time and cost money, or simply teach them their jobs on a need-to-know basis? Or would you leave it up to them whether they studied the blueprint or not?

   B. The chapter referred to a service blueprint for a frontline bank employee that covered thirty-six 11-by-18 pages. How long would your restaurant blueprint be? Compare the relative usefulness of your blueprint with the bank-employee blueprint.

4. You have been asked to manage a local music festival.

   A. How would a PERT/CPM chart help you do this?

   B. What would its essential elements, the individual circles in the chart, be?

   C. What would your PERT/CPM chart look like? Sketch it out, indicating the critical path.

5. Describe several situations in which hospitality managers could use cross-functional project and matrix teams to improve the quality and/or value of the guest experience.

6. Providing a wow service and preventing service problems are two sides of the same coin. Discuss.

1. Apply a PERT/CPM chart to a guest service situation in a hospitality organization with which you are familiar.

2. Blueprint the service experience provided by a hospitality organization with which you are familiar, with emphasis on the delivery system.

3. Find a potential problem area in that blueprint and draw a simple fishbone diagram that you might use to prevent or resolve the problem.

The airlines, in essence, provide the service of getting guests from point A to point B safely. While there are clearly many parts to this service product, safety is a critical component that gets significant attention in the planning process. Fail-safes and various forms of security have been added to provide greater security for guests, but all these come at a cost. The U.S. government has recommended the use of cost-benefit analysis for assessing potentially new regulations. The regulatory safety goal is $1–10 million per life saved, meaning that a regulation costing this amount or less per life saved is worthwhile to implement. So, by these standards, hardened cockpit doors, which are estimated to cost $800,000 per life saved, seem like a good investment; however, the Federal Air Marshal Service, estimated to cost $180 million per life saved, seems a poor investment.

Safety is an issue for all parts of the hospitality industry. Measures could include maintaining heightened security at hotels and restaurants, having trained medical staff on hand, and putting more safety measures into all aspects of the service system. Hotels could hire a full-time doctor, have extensive security teams, hire dozens of more people to inspect and test all food products coming into the kitchen; and many, many more.

How should decisions about implementing greater safety measures be made? What ethical issues are involved? Can you put a value, or a budget, on a human life? Should a safety decision be made this way? If so, how do you estimate the value to put on a human life to help determine if an investment is worthwhile? Is $1–10 million the "right" range of values? If you should not make a formal calculation using a value for a human life, how should you make these sorts of decisions?

CASE STUDIES

Room for Improvement

Monique Kazer spends quite a bit of time on the road in her job as a salesperson for a company specializing in audiovisual equipment for convention hotels and centers. She works long hours, often dines late at night, and returns to her lodging place late, sometimes after midnight. Monique has asthma and is very sensitive to cigarette smoke, so she always requests a nonsmoking room at her hotel or motel.

Several weeks ago, tired after visiting three convention hotels, in Newark, Jersey City, and Hoboken, in one day, Monique arrived a few minutes after midnight at the Hospitality Inn, where she had a guaranteed reservation. The Hospitality Inn was a unit of the major chain with which her firm did business because of the deep discounts offered. She checked in and headed for Room 315, looking forward to a hot shower and good night's sleep; tomorrow was going to be even busier. As always, she checked the door for a no-smoking sign. When she entered, the smell of cigarettes, or possibly cigars, mixed with air-freshener spray, almost made her sick. She began to cough, and her throat started to close up.

She quickly backed out, shut the door, and returned to the front desk. At least she didn't have to wait in line at that time of night, thank goodness for that. Desk agent Hyun Cho had a magazine open on the area beneath the counter that she used as her desk, but she was not reading it because—as Monique saw it—she was obviously talking to a friend on the phone. She glanced at Monique a couple of times but continued to talk on the phone, making it clear that Monique would have to wait her turn. Ordinarily, Monique would have waited a few moments, but tonight she was not in the mood so she employed her last-ditch technique for gaining attention in such a situation: She reached over the counter, took the phone out of Cho's hand, and hung it up. The service encounter went downhill from there.

Monique didn't even give a red-faced Hyun Cho a chance to mention the phone hang-up: "I made a reservation for a nonsmoking room, and you people put me in a room full of smoking fumes. Just change my room and we'll let it go at that."

Cho was a fairly conscientious night desk agent, and she had actually been talking with her babysitter, but she was still steaming from having the phone taken from her in mid-sentence. Hyun said nothing, checked the hotel records with a glance, and then said to Monique: "That *is* a nonsmoking room!"

"Check again, Ms … (looking at her name tag).… Cho. The room smells like a pre-war stag party."

"I don't care if it smells like hell warmed over. I don't need to check again, Ms…. (looking at the registration card).… Ka-Zer. I can read and I know my rooms and I can tell you that Room 315 is for nonsmokers." She concluded triumphantly, "We changed it over last week!"

Monique whispered the first curse she had uttered in a year or two, and then said, "Just move me to a nonsmoking room that has been a nonsmoking room as long as you have been open."

"No, problem, Ms. Ka-Zer. (pause) Usually. But tonight, I'm sorry, we're filled up."

Monique tried to have the room fee canceled, but Hyun refused. "If you don't show up until after midnight, it's actually the next day. No cancellations or refunds under any circumstances after midnight." She played her hole card: "Company policy." Then she added, "You ought to do something about that cough."

Monique left—tired, defeated, and still coughing—and headed out into the night to find another room, if she could. If not, there was always the back seat of the rented Crown Vic.

1. How would you have handled this situation if you were Monique Kazer?

2. How would you have handled this situation if you were Hyun Cho?

3. What devices described in the chapter might system planners have used to prevent this service failure, and how might they have used them?

Room for More Improvement

As Monique Kazer rushed through the exit of the Hospitality Inn lobby, she almost knocked manager Roberta Morales down. Morales recognized Monique from previous visits and knew that Monique's firm gave Hospitality Inns across the region a lot of business. Morales realized that something was wrong and suspected that the something was a service failure.

"I'm the inn manager. Is there something I can do for you?" she said to Monique. She heard Monique's side of the story, took her to the cocktail lounge, bought her the beverage of her choice, and asked an assistant manager to chat with Monique while she went back to the front desk. After hearing Hyun Cho's side of the story ("she yanked the phone out of my hand and slammed it down"), Roberta Morales headed back to the lounge. She would speak further with Hyun Cho later on.

1. In a later chapter, you will be reading about some techniques for handling service failures. For now, what steps might you take to retain the patronage of Monique Kazer (and her entire organization)?

2. What steps would you take with regard to Hyun Cho and the failure at the front desk?

3. Using some hypothetical but realistic numbers, how much do you think it might end up costing Hospitality Inns if manager Roberta Morales is unable to recover from this failure and ends up losing the patronage of not only Monique Kazer but her entire firm?

ADDITIONAL READINGS

Biolos, J. 2002. Six sigma meets the service economy. *Harvard Management Update*, 7 (11), 3–5.

Bitner, M. J., Ostrom, A. L., & Morgan, F. N. 2008. Services blueprinting: A practical technique for service innovation. *California Management Review*, 50 (3), 66–94.

Bretthauer, K. 2004. Service management. *Decision Sciences*, 35, 325–332.

Carey, S. 2007. Calculating costs in the clouds. *The Wall Street Journal*, March 6, pp. B1, B12.

Chesbrough, H., & Spohrer, J. 2006. A research manifesto for services science. *Communications of the ACM*, 49 (7), 35–40.

Froehle, C. M., & Roth, A. V. 2004. New measurement scales for evaluating perceptions of the technology mediated customer service experience. *Journal of Operations Management*, 22, 1–21.

George, W. R., & Gibson, B. E. 1991. Blueprinting: A tool for managing quality in service, in Stephen W. Brown et al. (eds.), *Service Quality: Multidisciplinary and Multinational Perspectives*. Lexington, MA: Lexington Books, pp. 73–91.

Gross, D. 2009. Try the beef and broccoli: P.F. Chang's simple recipe for profits. *Newsweek*, May 25, pp. 29–30.

Hill, A. V., Collier, D. A., Froehle, C. M., Goodale, J. C., Metters, R. D., & Verma, R. 2002. Research opportunities in service process design. *Journal of Operations Management*, 20, 189–202.

Johnston, R. 2005. Service operations management: Return to roots. *International Journal of Service Industry Management*, 25, 1278–1297.

Jones, P. (ed.). 2008. *Handbook of Hospitality Operations and IT*. Burlington, MA: Butterworth-Heinemann.

Kimes, S. E. 2004. Restaurant revenue management: Implementation at Chevys Arrowhead. *Cornell Hotel and Restaurant Quarterly*, 45 (1), 52–67.

Kumar, S., Phillips, A., & Rupp, J. 2009. Using six sigma DMAIC to design a high-quality summer lodge operation. *Journal of Retail and Leisure Property*, 8, 173–191.

Kwortnik, R. J., & Thompson, G. M. 2009. Unifying service marketing and operations with service experience management. *Journal of Service Research*, 11, 389–406.

Kingman-Brundage, J. 1989. The ABCs of service system blueprinting, in M. J. Bitner and Lawrence A. Crosby (eds.), *Designing a Winning Service Strategy: 7th Annual Services Marketing Conference Proceedings*. Chicago: American Marketing Association, pp. 30–33.

Lewis, M., Young, B., Mathiassen, L., Rai, A., & Welke, R. 2007. Business process innovation based on stakeholder perceptions. *Information Knowledge Systems Management*, 6, 7–27.

Machuca, J. A. D., Gonzalez-Zamora, M., & Aguilar-Escobar, V. G. 2007. Services operations management research. *Journal of Operations Management*, 25 (3), 585–603.

Mahapatra, S. S., & Khan, M. S. 2006. A methodology for evaluation of service quality using neural networks. *Proceedings of the International Conference on Global Manufacturing and Innovation*, July 27–29, pp. 1–9.

March, L., & Fugazi, R. 2002. Applications of business process redesign in hotel daily operations: The impact of redesigning airport van pickup process on hotel customer satisfaction. *Journal of Quality Assurance in Hospitality & Tourism*, 3 (1/2), 19–33.

McCartney, S. 2008. Savvier airline schedules, fewer cheap fares. *Wall Street Journal*, October 21, p. D7.

Metters, R., & Marucheck, A. 2007. Service management: Academic issues and scholarly reflections from operations management researchers. *Decision Sciences*, 38 (2), 195–214.

Michaels, D. 2009. Airlines' expert on missing bags fights lost cause. *Wall Street Journal,* August 13, pp. A1, A4.

Morgan, I., & Rao, J. 2002. Aligning service strategy through super-measure management. *Academy of Management Executive*, 16 (4), 121–131.

Roth, A. V., & Menor, L. J. 2003. Insights into service operations management: A research agenda. *Productions and Operations Management*, 12 (2), 145–164.

Shostack, G. L. 1992. Understanding services through blueprinting, in Teresa A. Swartz, D. E. Bowen, and S. W. Brown (eds.), *Advances in Services Marketing, and Management: Research and Practice*, Vol. 1. Greenwich, CT: JAI Press, pp. 75–90.

Soltani, E., Lai, P.-C., Javadeen, S. R. S., & Gholipour, T. H. 2008. A review of the theory and practice of managing TQM: An integrative framework. *Total Quality Management & Business Excellence*, 19, 461–479.

Song, H., & Li, G. 2008. Tourism demand modeling and forecasting: A review of recent research. *Tourism Management*, 29, 203–220.

Stierand, M., & Sandt, J. 2007. Organizing haute-cuisine service processes: A case study. *Journal of Hospitality and Tourism Management*, 14, 24–36.

Swaminathan, J. M. 2001. Enabling customization using standardized operations. *California Management Review*, 43 (3), 125–135.

Testa, M. R., & Sipe, L. J. 2006. A systems approach to service quality: Tools for hospitality leaders. *Cornell Hotel and Restaurant Administration Quarterly*, 47 (1), 36–48.

Thompson, G. M., & Kwortnik, R. J. 2008. Pooling restaurant reservations to increase service efficiency. *Journal of Service Research*, 10 (4), 335–346.

Tsikriktsis, N., & Heineke, J. 2004. The impact of process innovation on customer dissatisfaction: Evidence from the U.S. domestic airline industry. *Decision Sciences*, 35, 129–142.

Wright, C. M., & Mechling, G. 2002. The importance of operations management problems in service organizations. *Omega*, 30, 77–87.

NOTES

[1]Metters, R., & Marucheck, A. 2007. Service management: Academic issues and scholarly reflections from operations management researchers. *Decision Sciences*, 38, 196.

[2]Facella, P. 2009. *Everything I Know About Business I Learned at McDonald's: The 7 Leadership Principles that Drive Break Out Success*. New York: McGraw-Hill.

[3]Bitner, M. J., Ostrom, A. L., & Morgan, F. N. 2008. Service blueprinting: A practical technique for service innovation. *California Management Review*, 50 (3), 66–94.

[4]Ibid.

[5]For this discussion, we are indebted to Shostack, G. L., & Kingman-Brundage, J. 1991. How to design a service, in C. A. Congram and M. L. Friedman (eds.), *The AMA Handbook of Marketing for the Service Industry*. American Marketing Association, pp. 243–261.

[6]Albrecht, K. 1988. *At America's Service: How Your Company Can Join the Customer Service Revolution*. New York: Warner Books, p. 89.

[7]Shostack & Kingman-Brundage, 244. For more information on service blueprinting and service mapping, see Shostack, G. L. 1984. Designing services that deliver. *Harvard Business Review*, 62 (1), 133–139; and Kingman-Brundage, J. 1991. Technology, design, and service quality. *International Journal of Service Industry Management*, 2 (3), 47–59.

[8]Wyckoff, D. D. 1984. New tools for achieving service quality. *Cornell Hotel and Restaurant Administration Quarterly*, 25 (3), 78–91.

[9]See for example, McNeil, R. G., & Evans, R. A. 2004. So you want to build a convention center: The case of hope versus reality. *Journal of Convention and Event Tourism*, 6 (1&2), 23–43.

[10]Thompson, G. M., & Verma, R. 2003. Computer simulation in hospitality teaching, practice, and research. *Cornell Hotel and Restaurant Administration Quarterly*, 44, 85–93.

[11]Kuo, C., & Nelson, D. C. 2009. A simulation study of production task scheduling for a university cafeteria. *Cornell Hospitality Quarterly*, 50, 540–552.

[12]Dittman, D. A., & Hesford, J. W. 2007. Simulation-based optimization approach for investment decisions: A case study of Pure Allergy-Friendly Rooms. *Cornell Hotel and Restaurant Administration Quarterly*, 48, 88–100.

[13]Chase, R. B., & Stewart, D. M. 1994. Make your service fail-safe. *Sloan Management Review*, 35 (1), 36.