Chapter X

Service Innovation II: Designing the Service Delivery Process

Chapter Objectives

- Recognize the challenges associated with designing new services.
- Demonstrate how process flow charts and service blueprints can be used as tools to design new services and improving existing ones.
- Identify the factors that should be considered when designing services.
- Show how designing new services can be viewed as preparing for an onstage performance to improve both its effectiveness and efficiency.
Managerial Issues

As discussed in an earlier chapter (Service Innovation I: Idea Generation), the design of new services encompasses everything ranging from the design of a completely new service to enhancing an existing service by changing some of its service features. Whether the service design issues are large or small, the service delivery process should be designed to meet the specific needs of its customers. The proper approach to service design, then, would identify what the service should entail. This would include: (a) where customers should be served, (b) when they should be served, (c) who should serve them, and (d) how they should be served. Incorporating all of these customer-related issues into the design of both the service delivery process and the overall service system assures that all of the required elements are properly integrated and focused on satisfying the customer.

The Customer's Perspective

Think about the last time you went to your favorite restaurant. Can you remember all of the different steps that were involved? Did you have trouble finding a parking space? Did you have to wait for a table or did you have a reservation? Was there a place to wait? Was it comfortable or crowded? Did you have to serve yourself while you were there (like going to the salad bar)? Was the waitstaff friendly or were
they rude? Did they seem knowledgeable about the menu and any specials that may have been offered that night? Was your order correct when you received it and was your food properly prepared? Was the bill correct? Did it appear that you were being rushed through your meal so that another group of customers could be seated? What did you like best about the experience? What things could have been improved?

All of these questions pertain to the restaurant’s service delivery process; the process that interacts directly with the customer. How it is designed and aligned to meet the needs of the customer is critical to the success of the restaurant. The same holds true for every service, whether it is a traditional brick-and-mortar service establishment that we personally visit, like a restaurant or a beauty salon, or a digital service that we access through the Internet like Expedia, Amazon and EBay.

A Framework for Service Process Innovation

The Service System

The service system comprises the service delivery process and all of the supporting processes that are required in the co-creation of value for the customer.

The service system is often the service organization. However, the service system can be expanded to include suppliers to whom part of the service delivery process has been outsourced and who therefore can affect the customer’s experience (this is known as business process outsourcing or BPO). For example, when you make an online airline reservation at Expedia, how quickly and accurately Delta Airlines confirms your reservation and seat assignments significantly affects your experience and satisfaction with Expedia’s reservation process.

Service Delivery Process. This is the end-to-end process that directly interacts with the customer. It consists of all the steps that a customer goes through in the co-creation of value. The service delivery process begins when the customer first interacts with the service organization or system and ends when the delivery of the desired service is completed and the customer exits the process.

Supporting Processes. These consist of all the other processes that together with the service delivery process define the service system. Each supporting process affects the customer’s experience during the delivery of the service. Examples of supporting processes include the human resource management process and the information technology process.

The relationships among these terms are shown in Exhibit X.1.

Need for Alignment

Aligning goals and resources is critical to the success of every service system or organization. First the firm must establish a service strategy that defines how value is created for the customer. Next the firm must define the service concept, which describes in detail the customer requirements and how they are going to be satisfied. The third component in the alignment is the design of the service delivery process itself. Here the firm use service blueprinting to identify the specific steps that take place during the interaction between the firm and the customer. Finally, the firm must ensure that the supporting processes are aligned with the delivery process to produce the best possible customer experience and at the same time, use resources wisely. The priority sequence for aligning these elements is shown in Exhibit X.2.
Challenges in Designing the Service Process

Because services are intangible they can be difficult to describe, and that difficulty creates a challenge for service designers. Lynn Shostack identified four risks inherent in describing services:¹

**Oversimplification.** Shostack writes, “To say that ‘portfolio management’ means ‘buying and selling stocks’ is like describing the space shuttle as ‘something that flies.’” All too often some of the most important steps in the service delivery process are overlooked in the initial design, only to be identified later when customers complain about the process.

**Incompleteness.** Customers are only able to describe the parts of the service with which they are familiar and with which they have direct contact. The designers must recognize that situations will often occur that were not anticipated, so the design of the process needs to be sufficiently flexible to accommodate them.

**Subjectivity.** People are biased by their own experiences with services or by personal situations that have nothing to do with the service. For example, if you had a bad day at the office, your dinner that night, even if it is at your favorite restaurant, will most likely not leave you with a positive feeling.

**Biased interpretation.** When people describe services to others additional bias is added in the way they use words, which are open to the interpretation of the listener. For example, what one person means by “polite and responsive” may be very different from what other people think when they hear those same words.

Like any process, the service design process can be improved by using a structured approach that systematically collects information from both customers and service providers to design a service process that meets customer needs, rather than a process that seems good to the manager. (The chapter on Collecting Customer Data describes in detail some of the ways information about customers can be collected and analyzed.)

Exhibit X.2: The Priority Sequence for Designing the Service Delivery Process

### Service Strategy

The first step in designing a successful service delivery process is to develop a specific service strategy by identifying and understanding the specific needs of the customer. Through thoughtful market research, the target market can be identified and its needs understood. The next step is to determine what it is that these customers really expect from a particular type of service. Even within a given industry, customer expectations vary significantly with the type of service and the particular customer needs. For example, customers eating at a quick service restaurant like Wendy’s or Panera Bread will not have the same expectations as they will have at a steakhouse like Bugaboo Creek or at a Michelin three star restaurant in Paris like L’Ambroisie.

The challenge with learning about customer needs is significantly magnified for new services. There has been much debate in the literature about whether customers can, in fact, correctly identify what they really want in a new service. Customers may not be able to specifically articulate a new service concept, but they can certainly describe their basic needs and their basic expectations from a service delivery process. For example, a service like Chuck E. Cheese’s addresses the needs of parents who want to take their small children to a restaurant to have a fun meal away from home. Chuck E. Cheese’s offers safe games and activities with small prizes for “winners” (all children win something) and animatronic music and entertainment. Kids are permitted – and even encouraged – to run around the facility and have fun while their parents enjoy an afternoon or evening away from home. The prizes and animatronics might not have been identified by prospective customers as part of a desired service, but the notion that kids like to move around and play games, that they like to win and be rewarded, and that they are attracted to animals, music, and movement would certainly be recognized by most parents. This chain’s service concept clearly incorporates both the needs of the customers and the creativity of the service designer.

Similarly, Apple has responded creatively to meeting customers’ needs in the design of its retail stores. Some of its customers know exactly what they’re looking for and want to be able to immediately locate their choice and pay for it quickly. Others, however, wish to wander, browse, and play with the products before they make a decision. Apple stores have successfully addressed the needs of both groups of customers in its service design: a carefully organized and well-labeled floor plan; a “genius bar,” where customers can get advice about products and help with problems; an efficient check-out system that is available for customers who want efficiency and speed of service; and an airy, open layout design with products displayed on tables to satisfy the needs of those just browsing. The store layout provides clear evidence of the direct link to different customer preferences – and its creativity and innovative feel differentiates Apple stores from those of its competitors.

These design challenges are equally important for online services. Amazon, for example, learned from its customers that free shipping was an important factor in their purchasing decision, so it now offers free shipping with a minimum $25.00 purchase. Amazon also provides information on other books purchased by people who bought the same book(s) that you have.
Service Concept

The actual design of the service delivery process begins with the service concept, which provides the link between the service strategy and the service delivery process. The service concept describes in detail exactly what the customers’ requirements are, in term of how they perceive value, and how they are to be satisfied. The “what” focuses on identifying the specific needs of the target customers; the “how” focuses on establishing the organization’s competitive priorities that will allow it to meet those customer requirements in the delivery of the service. The service concept encompasses four elements:2,3

- the service operation – the specific manner in which the service is delivered.
- the service experience – the customer’s direct experience with the service.
- the service outcome – the benefits and results for the customer receiving the service.
- the value of the service – the benefit that customers perceive from the service in comparison to the cost of that service.

In defining the service concept, management must also be attuned to the skills, qualifications and interests of the workforce. For example, nurse practitioners are able to perform physical examinations and treat medical problems that in the past could only be done by a physician. Using nurse practitioners to deliver care achieves two workforce goals: providing good care for patients and freeing physicians to concentrate on the more complicated cases that may be more interesting to them and that use their skill set more efficiently. Using nurse practitioners to provide care formerly provided only by physicians can also reduce the total cost of providing care.

Service Blueprints

Service blueprints are process flow charts that are used specifically for designing service operations.4 (A process flow chart is a very effective tool for depicting the different steps required in the completion of in a process. A more detailed description of a process flow chart is presented in the chapter on Measuring Service Process Performance.) With both process flow charts and service blueprints, process activities are depicted as rectangles, the movements from one step in the process to another are shown as arrows, waits are drawn as inverted triangles, and decision points are shown as diamonds.

As planning tools for service design, service blueprints help identify the points in the service process where special attention must be paid: where customers may be confused, where employees must make decisions (and might therefore be prone to errors), where waits are likely to occur in the flow of customers or in the flow of work, and where additional intervention (such as attention from a manager) might be required. Service blueprints are often drawn to indicate where the part of the operation that is visible to the customer (that is, the front office or front-of-the-house operations) is separated by from the part of the operation that is visible only to the workers (that is, the back office or back-of-the-house operations). Customers are primarily concerned with the parts of the operation they interact with directly. It is important to remember here that "contact" need not imply that the customer must be physically present at the service site. Customers interact with service processes in many ways: personal face-to-face contact, voice contact (via telephone), e-mail, and some service processes have no contact with service workers (such as automatic teller machines (ATMs) and websites). Regardless of the type of

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service, customers expect prompt attention (efficiency), appropriate action (effectiveness), and courteous service from front-of-the-house operations.

Valerie Zeithaml and Mary Jo Bitner identify four specific components of service blueprints that differentiate “blueprints” from process flow charts: (a) customer actions, (b) onstage contact employee actions, (c) backstage contact employee actions, and (d) support processes. These components are separated in the blueprint by three lines: the line of interaction, the line of visibility, and the line of internal interaction.5

The physical elements of the service are listed across the top of the service blueprint. And include both the environment in which the service takes place, as well as evidence that the service is taking place. With the checking in process at a hotel, for example, customers enter through the lobby, obtain the keys for their rooms, and take elevators to the floors on which their rooms are located.

**Customer actions** are the steps in the process performed by the customer. **Onstage contact employee actions** are the steps performed by the service provider in the presence of the customer. For example, the waiter at a restaurant takes an order at a customer’s table. **Backstage contact employee actions** are the activities undertaken by the service provider behind the scenes, which are outside the customers’ view. The backstage activities of that same waiter may include communicating with the chef about the order, plating the salad course and printing a check. Support processes include any actions taken by other members of the service team that support the activities of the service providers. In the restaurant, a number of kitchen staff may be involved with preparing a meal in the kitchen. Other employees may maintain inventories of ingredients and do clean-up. Exhibit X.3 shows a service blueprint for a restaurant.

There are several differences between service blueprints and process flow charts. The process flow chart shows decision points and waits, which typically are not shown on the service blueprint. Decision points are particularly important to understand thoroughly when a process is being designed because it is at the decision points that judgments take place and errors are likely to occur.

The service blueprint, on the other hand, shows the interaction between different players in the newly designed process, which demonstrates how important it is for everyone involved in the new service to understand the process, the handoffs, and how they are related. The line of visibility makes clear to everyone involved in providing the service what the customer should and should not see.

You can also create a “hybrid” of the service blueprint and process flow chart. The hybrid diagram shows all of the decisions and connections that the process flow chart shows at the same time that it illustrates the concepts traditionally shown in a service blueprint.

Service blueprints are not just applicable to designing traditional services that interact directly with the customer. They can also be applied to online services and IT services, as illustrated in Exhibit X.4.

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Exhibit X.3: Service Blueprint for a Restaurant

Exhibit X.4: Service Blueprint for an IT Service
**Poka-yoke.** *Poka-yoke,* a Japanese term meaning “mistake proofing,” is widely used in manufacturing processes and products. An example of poka-yoke, is the requirement to put an automobile’s transmission in “Park” before you can remove the key. This ensures that the car will not roll. However, it also has application in service processes. Service designers should think of innovative approaches to “foolproof” the service delivery process wherever possible to reduce and even eliminate errors. One good example of applying poka-yoke in a service process is the bathroom door on an airplane. In order to turn on the light in the bathroom, passengers must lock the door, thereby ensuring their privacy and avoiding any embarrassment that may result from an unlocked door.

Richard Chase and Douglas Stewart divide opportunities for firms to apply poka-yoke or fail-safing techniques to service processes into three categories: (a) task errors, which pertain to the performance of the service, (b) treatment errors, which focus on the interaction with the customer, and (c) tangible errors, which address the physical evidence in the process. Examples of common errors that providers commit in each of these categories are presented in Exhibit X.5

**Exhibit X.5: Type of Provider Errors that Can be Committed in the Service Delivery Process**

<table>
<thead>
<tr>
<th>Category: Types of Errors:</th>
<th>Task Errors</th>
<th>Treatment Errors</th>
<th>Tangible Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Errors Work done:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- incorrectly</td>
<td>- acknowledge the customer</td>
<td>- clean facilities</td>
<td></td>
</tr>
<tr>
<td>- in wrong order</td>
<td>- listen to the customer</td>
<td>- provide clean uniforms</td>
<td></td>
</tr>
<tr>
<td>- in wrong order</td>
<td>- react properly to customer</td>
<td>- control atmosphere (noise, odor, lighting)</td>
<td></td>
</tr>
<tr>
<td>- not requested</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- too slowly</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chase and Stewart also identify three categories in which customers can commit errors. These are: (a) preparation errors prior to engaging the service, (b) encounter errors, which take place during the service delivery, and (c) resolution errors subsequent to the service being delivered. Examples of common errors that customers commit in each of these categories are presented in Exhibit X.6

**Exhibit X.6: Type of Customer Errors that Can be Committed in the Service Delivery Process**

<table>
<thead>
<tr>
<th>Category: Types of Errors:</th>
<th>Preparation Errors</th>
<th>Encounter Errors</th>
<th>Resolution Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation Errors Failure to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- bring proper materials</td>
<td>- signal service failures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- understand role in process</td>
<td>- learn from experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- engage correct service</td>
<td>- adjust expectations appropriately</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- “do homework”</td>
<td>- execute appropriate post-service actions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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*Chase, Richard B and Stewart, Douglas M. “Make Your Service Fail-Safe,” *Sloan Management Review; Spring 1994 (35,3).*
**Service Style.** Service style is the “how” of the service delivery process. Customers may expect or desire a particular mood or ambience to be associated with a service. The atmosphere of a direct contact service involves all of the senses: sight, hearing, smell, and even tactile sensations. For example, the ambience of a haute cuisine restaurant might invite the customer with pleasant decor and candlelight, soft background music, the aromas of good food, and the comfort of cushioned armchairs. In contrast, the ambiance at a fast food restaurant like Wendy’s or Burger King suggests a totally different service style with its well lit environment, bright colors and group seating areas.

While customers expect a certain style and atmosphere in the front-of-the-house service operation, the back-of-the-house operations are invisible to customers. Therefore, the front-of-the house should focus on improving customer service and the back-of-the-house design should focus on increasing efficiency.

**Supporting Processes**

The supporting processes are all of the different elements in the service delivery system, as shown in Exhibit X.1 that affect the service delivery process. These include: (a) technology (which are the right ones and how does the customer interact with them?), (b) human resources (how many employees do we need and what are the skill levels required?), (c) inventories (how much inventory do we need and where do we need it?), (d) equipment (what types of equipment are needed and how does the customer interact with it?), (e) facilities (how big should they be and what décor package should they have?), and (f) marketing (who is our target market and how do we create value for them?) Many of these issues are addressed in more detail in the following section.

**Operations-Related Design Decisions**

The chapter on Defining Service Strategies discusses how the choice of strategy affects operations decisions, particularly with respect to how they can affect the design of the service delivery process. As we saw in that chapter, those strategic decisions, which were classified as either structural or infrastructural, need to be closely aligned in order to design a service process that truly provides the customer with a positive experience. Many of these operations decisions not only affect the design of the service delivery process but also the supporting processes as well.

**Structural Decisions**

The specific structural decisions that directly affect the design of the service delivery process include (a) capacity, (b) technology, and (c) vertical integration. (Location, which is also a structural decision, does not directly affect the design of the service delivery process, and is discussed in detail in the chapter on Facility Location and Layout.)

**Layout.** The layout of the facility is an important element in the design of the service delivery process. For the front of the house, management must consider such issues as the cost of the space itself (retail space is typically very expensive), the efficiency of the service staff and the comfort and convenience of customers. Some service organizations design their layout to encourage customers to make additional purchases. For example, CVS locates its pharmacies at the back of its retail stores so customers will have to walk down the aisles to get there, often buying items on impulse. Back-of-the-house layouts typically focus on efficiency and front-of-the-house layouts typically focus on effectively meeting customer needs. The Facility Location and Layout chapter describes several types of service facility layouts,
including (a) process layouts, which organize materials and equipment according to the process performed, such as the different departments in a hospital; (b) product layout, which organizes the steps in a service process in the order they are provided, such as the layout of the self-service stations at a cafeteria style restaurant; and (c) fixed position layout, such as the special services desk at a bank, where all new account transactions take place, or an operating room in a hospital. That chapter also describes the importance of ambience, the functionality of the space, and the signs, symbols and artifacts that provide cues to the customers about the style and nature of the service.

**Capacity.** The size of the service facility is an important consideration in designing the delivery process. When capacity is inadequate, customers may be uncomfortable or may choose not to purchase the service, which argues for excess capacity. On the other hand, when there is too much capacity, operating costs may be too high to permit delivering the service at a price customers are willing to pay. Capacity needs to be planned not only for the actual service delivery, but, for many services, also for customers who may have to wait for service. (The chapter on Managing Capacity and Demand provides a detailed examination of service capacity issues.)

**Technology.** At its simplest level, technology is the way work is performed. One can pay a bill by writing a check with a checkbook and a pen, or pay the bill online. The technology an organization adopts can affect its ability to deliver new services and to compete in new markets. A classic example is the comparison between McDonald’s and Burger King. McDonald’s configured its restaurants with grills that are multi-purpose pieces of equipment while Burger King chose to cook hamburgers using a specialized broiling process, which many customers believed produced a tastier hamburger. When the demand for fast-food breakfast meals developed, however, McDonald’s had an advantage: eggs can be cooked on a grill, but not on a broiler. Burger King had to add new equipment and reconfigure its kitchens to be able to produce simple breakfast foods. By the time it had made the necessary renovations, McDonald’s had captured much of the breakfast market. The decision between adopting multi-purpose equipment and specialized equipment continues to be important in services. Typically, larger volumes make specialized (and often faster) equipment cost-effective, but the flexibility afforded by more labor-intensive multi-purpose equipment can also be a competitive advantage in a fast-paced society where customer requirements change quickly.

Today technology decisions often focus on how to provide the service to the customer. Which customer interface to choose depends on the market being served and their needs — not only for the core service, but also for the broader, overall experience. For example, should the process be face-to-face between workers and customers (as between a bank teller and customer)? Should it be self-service (as with a bank ATM)? Should it be a remote conversation on the telephone (as with a call center)? Should it be through the Internet (as with online banking)? As part of this decision process managers need to recognize that the choice of technology can very often segment their customer base, and that they, therefore, need to provide more than one type of customer interface to ensure that they do not lose customers who, for whatever reasons, do not want to use a particular technology.

**Self-service.** There is a growing trend towards self-service, from ATMs at banks to self-service checkouts in supermarkets, to kiosks for checking at the airport. This growth in self-service is driven primarily by advances in technology. In many cases, self-service creates a win-win situation, providing more convenience to the customer and at a lower cost to the service provider. Online self-service, such as airline reservations and bill paying through your bank, allow customers 24x7 access to these services. A word of caution when introducing self service processes: as suggested earlier, not every customer wants
self service; many want the traditional full service that they have used in the past, and will often go elsewhere if self-service is the only option available.

**Vertical Integration.** Traditionally, vertical integration refers to owning either suppliers (backward integration) or customers (forward integration). The notion of “virtual vertical integration” is now often used to describe firms that work very closely with their suppliers and customers to achieve many of the advantages of vertical integration without actual ownership. Decisions related to either ownership of the supply chain or linkages to other organizations in the supply chain clearly need to be considered in the design of the service process. For example, expanding on an earlier example, Expedia’s links to various airlines and credit card companies are integral elements of its online reservation process.

**Infrastructural Decisions**
The infrastructural decisions focus on the “soft” worker-related issues (in contrast to the more “concrete” issues that are related to structural decisions such as facility size and layout, equipment and technology). These decisions apply to the design of the overall service system, which includes the service delivery process. The specific infrastructural decisions that relate directly to the design of the service delivery process include: (a) workforce configuration, (b) quality, (c) policies and procedures, and (d) organizational structure.

**Workforce Configuration.** The workers who interact with the customers as part of the service delivery process are an important element in the design of the service system. While this might seem like a straightforward decision for some services, for others it is critical in making the customer’s experience a positive one.

Service organizations should consider several important variables when deciding how to configure the workforce. Of course, as in any hiring decision, service organizations need to think about the nature of the work to be performed and the required worker qualifications and/or skills. Does the job require a particular type of skill or training? How much experience should the worker have? Along with task-related capabilities, workers who will directly interact with customers must also have people skills that might not be as critical for workers in the back-of-the-house operations. For example, a cook in a restaurant need not have the well developed people skills that make waiters successful: an easy smile, a pleasant demeanor, and the ability to defuse the emotion of an angry or irritable customer.

Another important variable to consider when making workforce decisions, of course, is cost. There are times when a firm should hire the worker with the most training and experience and be willing to assume the higher costs associated with that worker. There are other times, however, when a more cost-efficient alternative will not only be adequate, but may even be service enhancing, thereby creating a win-win situation. For example, hospitals learned in the 1970s and 1980s that many expectant parents wanted a birth experience other than the controlled, problem-focused experience they could expect with high-risk-oriented medical care. When midwives were introduced as alternative care providers in some hospitals settings, large patient followings were built up. Women generally make the health care decisions for their families. As a result, the loyalty to a hospital that developed when a midwife delivered a healthy baby and the parents had a positive experience was demonstrated through returns to that hospital for other types of healthcare services. Nurse practitioners and physician assistants were also found to be highly regarded by their patients, providing high quality services and enhancing the healthcare experience for their patients. While midwives, nurse practitioners, and physician assistants increased customer satisfaction, they also decreased costs for the organizations that employed them, since they were paid significantly less than the physicians who would have provided similar care.
Quality. The design of the service system must address two important aspects of service quality: performance quality and conformance quality (See the chapter on Understanding Service Quality for a more detailed discussion of these dimensions of quality). Performance quality relates to the primary operating characteristics of the service. For example, the design of a restaurant must consider whether the service will provide a gourmet dining experience or a fast food experience or something in between. Many other design decisions will depend on the performance quality decision, including workforce decisions and policies and procedures.

Another important aspect of service quality from a process design perspective is conformance quality. Whether the restaurant is gourmet or fast food, the service should control the process variables that are seen as important to customers, in terms of both establishing quality standards and maintaining consistency, so that the quality of the service is excellent, given the market being served. For example, in a fast food restaurant, customers are likely to be concerned about the freshness of the food, whether the hot foods are hot and the cold foods are cold, whether the restaurant is clean and attractive, whether servers are prompt and polite, and whether they have convenient access to the restaurant (which may mean parking or a convenient drive-through window). For each of these variables a standard can be established and conformance can be monitored over time. At what temperature should hot foods be maintained? For how long can they be held? At what point should unsold food be discarded? Designing quality throughout the service system is critical to the success of the service firm.

Policies and Procedures. Policies and procedures for doing work contribute to building a strong service system design and can support the decisions made about workforce and quality. For example, in a law firm there needs to be clear guidelines as to what work can be performed by a paralegal and what work requires a lawyer.

Hours of Operation. An important policy decision relates to when customers want to be served. Banks used to be the classic example of a service industry that was not attuned to the needs of their customers; 10:00 a.m. to 3:30 p.m. Monday through Friday became known as "bankers’ hours" – pleasant for the workers but very inconvenient for most of their customers. In recent years, banks have expanded their branch hours to be more accessible to customers and provide 24x7 service through their ATMs and Internet services. Retail stores now open earlier and close later; universities offer evening and weekend classes as well as online alternatives, all in order to better meet the needs of the customers in their specific target markets. While it is easy for competitors to follow an expanded hour policy, customer loyalty is often won by the first firm to offer increased customer convenience.

Organizational Structure. Understanding reporting relationships within a service organization is critical for service design. Building in appropriate coaching and mentoring enables the firm to consistently serve customers well. (A more comprehensive discussion of these issues is presented in the chapter on Creating a Service Culture.) Similarly, service managers need to understand the flow of the design of the service in order to know where in the process service workers may encounter challenges and when they need to be ready to intervene to either help the front-line service provider or to interact with the customer.
Mapping Customer Emotions

Service blueprinting provides management with an understanding of the roles of the provider and customer during the service delivery process and how they interact in the co-creation of value. As such, service blueprinting can be viewed as a very “mechanical” approach that identifies the sequential steps or activities that when taken as a whole constitute the service delivery process for a particular organization.

However, a critical element that is missing in service blueprinting is the inclusion of the different possible emotional states that customers might exhibit or go through during their respective interactions with a firm’s service delivery process and how the service provider might recognize and address these emotional states with the goal of enhancing the customer’s overall experience with the service.

There is clearly a need for managers to map customer emotions throughout the service delivery process so they can better understand how to assess and improve their customers’ experiences. As an example, Bain & company surveyed senior executives at 362 companies where 96 percent of them said that their organizations were “customer focused.” Eighty percent of them believed that they provided their customers with a “superior experience.” Yet in another survey, customers were asked to rate the quality of goods and services that they purchased and only 8% of the companies received a superior rating.7

Classifying Customer Emotions

As a first step in understanding how customer emotions affect their “journeys” through the service delivery process we classify customer emotions, as they relate to service delivery, along several dimensions, which include: (a) intent of the service, (b) source of emotions and (c) variability in emotions during the process.

Intent of Service. Different services evoke different types of emotions. “From an emotional perspective, we are very different than Disney World,” says Michael O’Connell, Vice President for Planning and Marketing at Mount Auburn Hospital in Cambridge, Massachusetts. “Where Disney World’s goal is to make people happy, our focus is on reducing peoples’ anxieties.”

The intent of the service can include (a) enjoyment, like going out to a restaurant or going on a cruise, (b) transactional, like buying a movie ticket or paying your bills online, (c) urgent, like going to a hospital’s emergency room or making a 911 call, or (d) informative, where you are seeking knowledge, as when you “Google” something or seek product information. Customers in each of these services require a different approach, in terms of how the service organization meets their emotional needs.

Source of Emotions. In some cases, customers bring specific external emotions with them when they enter the service delivery process, while in other cases the emotions are generated during the process. A parent bringing a sick child to an emergency room is an example of the former while a hotel informing someone with a guaranteed reservation that they are overbooked and have no rooms available is an example of the latter. A process-generated emotion could also be caused by a customer who provides the wrong information.

**Variability in Emotions during the Process.** For some service processes, like the checkout process at the supermarket, there is little if any variability in customer emotions (unless, of course, a problem arises). For other processes, there can be a wide range of customer emotions. An example of this type of process is the full service check-in counter at an airport. Some customers may simply want to change their tickets, while for others, this may be their first flight and so may have a lot of anxiety.

There can also be significant variability for individual customers as they proceed through the process. This is especially true when a mistake is made, as when an airline flight is overbooked, or when a credit card approval is denied. Service managers, therefore, need to know where in their delivery processes these opportunities for failure can occur and be prepared to address any emotional change in their customers when it does occur.

**Expressive Service Blueprinting**

One technique for mapping the customer’s emotions throughout the service delivery process is expressive service blueprinting. First, the traditional service blueprint needs to be developed, identifying all of the steps the customer is involved in during the service delivery process. Expressive service blueprinting can then be used to graphically depict the different possible emotional states that a customer might have at each step in the process and how it affects the customer’s relationship with the firm. Management and/or the service designers can then seek out the causes of these emotional states, and assess if and how they might want to change them with the goal of improving the customer’s overall experience with the service. (Not every step in the service blueprint needs to undergo an in-depth analysis of the customer’s emotions.)

Changing the customer’s emotional state could involve one of several actions: (a) changing the steps in the service delivery process, (b) changing how the provider interacts with the customer during that step (by providing employees with additional training, for example), and (c) changing the physical evidence associated with that step (which could include both the physical evidence resulting from the process as well as the physical evidence that defines the environment in which the step takes place). As an example of each of these different actions, to lower a passenger’s anxiety with using a self-service check-in kiosk at the airport, an airline could (a) redesign the self-service software program so that the process could be more easily understood by passengers, (b) have an airline employee offer to assist passengers with the self-service check-in process, and (c) redesign the kiosk itself with perhaps additional signage that better explains the check-in process and printed documents (like a receipt and boarding pass) that are easier to read.

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Service as a Performance

Stephen Tax and Ian Stuart describe services as performances and suggest that service managers “look to the theater” to learn how to improve the way in which to design and deliver services.9 From studying the production of a play, they discovered the following four key elements that are important in service design:

Integrating Design Processes

Performances have three components: business functions, technical functions and artistic functions. They see the script as the service concept, providing the cast and crew with a shared understanding of

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what needs to be done. The stage manager is viewed as the service manager, who hires, trains and motivates the team.

**Ready, Aim, Fire**
Theatrical productions open on time, ready for peak performance, which is unlike many new services that open late, with details not thoroughly thought out and that need significant tweaking — a "ready, fire, aim" approach. The constant experimentation that accompanies the pre-opening period provides an opportunity for everyone to be involved and creative. The message here is that managers of all services should involve the entire service team in focusing on all of the details that make the difference to the customer.

**Efficient Design**
Because rehearsals don’t generate revenues, theaters are as efficient as they can be. Communication is key here; daily rehearsals, weekly production meetings and dress rehearsals all prepare everyone for the performance, and create an opportunity to voice concerns about decisions made along the way. Again, the message for all services is clear: communicating about customer requirements, practicing how to manage customer interactions — particularly the challenging ones — and identifying potential problems before they occur. The end result is a smooth service delivery with fewer customer complaints.

**Do It Right at First**
Experimenting during the design phase makes it possible to deliver a superior “performance” when the service does open. Even services that do not involve direct customer contact can benefit from these service-as-performance design elements. Functional integration, a continuous focus on the needs of the customer, communication among the members of the service team and identifying and eliminating problems in the design phase produce services that are more likely to be both effective and efficient.

**The Impact of Technology**
Clearly, technology significantly affects the way service processes and systems are designed. From self-service kiosks at airports, to RFID electronic toll payments, to the vast array of online services now available, technology provides innovative ways to better serve customers. Technology creates more value for the customer by providing services that are faster, and more available, and often at lower prices. Service design has been enhanced by software that can be run on office computers and hardware/software devices substitute for personal service in a variety of settings.

**Software**
Service managers use software programs to make better decisions about a variety of service design issues. For example, service processes can be simulated to determine how much capacity is required to meet varying levels of customer demand. These simulations can demonstrate when and where in the process waiting lines will form and how long customers may have to wait when different numbers of servers are scheduled. Other computer programs, as we saw in the Service Science in Practice example, enable service managers to experiment with different facility layouts. These programs allow managers to visualize how customers would move through the facility and can identify where potential bottlenecks can occur. Using simulation a number of layouts can be “tried out” virtually before any physical structures are built.
Process flow charts and service blueprints can be easily produced and modified with software specifically designed for this purpose, enabling everyone in the organization to see exactly what the service process is intended to be.

Online business process management software, particularly in the human resource management area, permits policies and procedures to be readily accessible online by employees and easily maintained and updated by management, enabling everyone in the organization to be “on the same page” in terms of how to serve customers.

The Internet has made it possible to design many services that complement already existing services. Online banking, online retail purchasing and even online local weather reports enhance services offered by existing service firms. New software technologies have transformed web page development from a complicated process that could be done by only a highly skilled programmer to a point-and-click process that enables anyone to develop attractive and fully functional websites. And services such as e-mail have become so much a part of our lives that it is hard to remember what it was like without them.

**Hardware/Software Devices**

New devices that encompass both hardware and software have also had a profound effect on the design of innovative services. Self-service equipment such as of kiosks at airports, checkouts at supermarkets, gas stations pumps and ATMs allow service firms to provide service that may be more accessible and accurate and at only at a fraction of the cost of traditional face-to-face service.

Point-of-sale (POS) equipment in brick-and-mortar retail stores (some of which are also self-service), which are equipped with bar code scanners and/or RFID tag readers allow customers to be processed faster and more accurately. The data collected by these machines allows management to make better decisions about process capacity and workforce scheduling, both of which can affect future changes in the service delivery process.

The explosive growth in the use of mobile devices like the iPhone and Blackberry provides additional opportunities for incorporating innovative ideas into the design of the service delivery process.

**Summary**

A firm’s ability to design and introduce new and innovative services is clearly an advantage in today’s highly competitive global environment, and technology is often the catalyst for innovation. While this chapter focused primarily on the service delivery process – the direct interaction with the customer – it is important to note that innovation applies to the entire service system.

Whether you are designing a traditional brick-and-mortar retail service with direct interactions between workers and customers or an online service where there is no human interaction, the basic elements of service delivery process design are the same: focus on the needs and desires of the customer, define the service content and style, and describe all the steps required in the delivery of the service. It is equally important to identify all of the supporting processes that are needed to deliver the desired customer experience. These supporting processes include configuring the workforce, defining and monitoring quality standards, and establishing the necessary policies and procedures. To achieve a successful design, all of these elements must be properly aligned and integrated. A transdisciplinary approach that
spans the traditional boundaries between marketing, operations, human resource management and technology results in a robust service design that is both effective in meeting customer needs and resource efficient for the firm.

**Key Words**

- **customer actions**: the steps in the process performed by the customer.
- **back-of-the-house operations**: that part of the service delivery process that does not interact directly with the customer and which is most often outside the purview of the customer.
- **front-of-the-house operations**: that part of the service delivery process in which the customer is present.
- **line of interaction**: defines the specific interactions that take place between the customer and the service provider.
- **line of internal interaction**: identifies the specific interactions that take place between those employees that interact directly with the customers and those employees who work in the back of the house.
- **Line of visibility**: separates the front of the house, where the customer is and can see from the back-of-the-house, which is not open to the view of the customer.
- **process flow chart**: an illustration of the specific steps, flows and decision points in a process.
- **service concept**: is a detailed description of what customer needs are to be satisfied and how they are to be satisfied.
- **service blueprint**: specialized process flow charts that depict the different elements of the service design.
- **service system**: all of the elements, including the service delivery process, that are required in the providing the customer with a service that is both effective and efficient.
- **support or supporting processes**: actions taken by members of the service team who do not have direct contact with the customer but whose activities support the activities of the contact service providers.

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