Winning in Service Markets Series: Vol. 6

Designing Customer Service Processes

Jochen Wirtz

Winning in Service Markets is a highly practical book. I love the comprehensive coverage of services marketing and the rigor. Also, it is easy to read and full of interesting, best practice examples. I recommend this book to everyone working in a service organization.

Jan Swartz
President, Princess Cruises

Winning in Service Markets provides a set of useful frameworks and prescriptions rooted in both practice and research. As such, it represents a refreshing alternative to the prevailing literature available to managers who are looking for insights rooted in sound theory. A must read for any practicing manager in the service economy.

Leonard A. Schlesinger
Baker Foundation Professor, Harvard Business School

From a customer's perspective, services are experiences. From the organization's perspective, services are processes that have to be designed and managed to create the desired customer experience. This makes processes the architecture of services. *Designing Service Processes* will discuss how service processes can be designed and improved to deliver the promised value proposition. This book is the sixth book in the Winning in Service Markets series by services marketing expert Jochen Wirtz to cover the key aspects of services marketing and management based on sound academic evidence and knowledge.

WS Professional
www.worldscientific.com
Y0008 sc

Winning in Service Markets Series

Series Editor: Jochen Wirtz *(National University of Singapore, Singapore)*

The Winning in Service Markets Series covers the key aspects of services marketing and management based on sound academic evidence and knowledge. The books in this series is written by services marketing expert Jochen Wirtz, author of globally leading textbook for Services Marketing. Each book in the series covers different themes in the study of services marketing and management, is accessible, practical and presented in an easy-to-read format for busy practitioners and eMBA students.

Forthcoming:*

Balancing Capacity and Demand in Service Operations
by Jochen Wirtz
Crafting the Service Environment
by Jochen Wirtz
Managing People for Service Advantage
by Jochen Wirtz
Managing Customer Relationships and Building Loyalty
by Jochen Wirtz
Designing Complaint Handling and Service Recovery Strategies
by Jochen Wirtz
Service Quality and Productivity Management
by Jochen Wirtz
Building a World Class Service Organization
by Jochen Wirtz

Published:

Vol. 1 Understanding Service Consumers
by Jochen Wirtz

Vol. 2 Positioning Services in Competitive Markets
by Jochen Wirtz

Vol. 3 Developing Service Products and Brands
by Jochen Wirtz

Vol. 4 Pricing Services and Revenue Management
by Jochen Wirtz

Vol. 5 Service Marketing Communications
by Jochen Wirtz

Vol. 6 Designing Customer Service Processes
by Jochen Wirtz

*More information on this series can also be found at:
http://www.worldscientific.com/series/wsms

Winning in Service Markets Series: Vol. 6

Designing Customer Service Processes

Jochen Wirtz

WS Professional

NEW JERSEY • LONDON • SINGAPORE • BEIJING • SHANGHAI • HONG KONG • TAIPEI • CHENNAI • TOKYO

Published by

WS Professional, an imprint of
World Scientific Publishing Co. Pte. Ltd.
5 Toh Tuck Link, Singapore 596224
USA office: 27 Warren Street, Suite 401-402, Hackensack, NJ 07601
UK office: 57 Shelton Street, Covent Garden, London WC2H 9HE

For orders of individual copies, course adoptions, and bulk purchases: sales@wspc.com
For orders of individual chapters and customized course packs: sales@wspc.com
For adaptations or translation rights and permissions to reprint; rights@wspc.com

Winning in Service Markets Series — Vol. 6
DESIGNING CUSTOMER SERVICE PROCESSES

ISBN 9781944659264 (mobile book)

Desk Editor: Karimah Samsudin

Printed in Singapore

Dedication

To my past and future EMBA and Executive Program participants.

I have been teaching EMBA and Executive Programs for over 20 years. This Winning in Service Markets Series is dedicated to you, the participants from these programs. You brought so much knowledge and experience to the classroom, and this series synthesizes this learning for future EMBA candidates and managers who want to know how to bring their service organizations to the next level.

Preface

The main objective of this series is to cover the key aspects of services marketing and management, and that is based on sound academic research. Therefore, I used the globally leading text book I co-authored with Professor Christopher Lovelock (Title: *Services Marketing: People, Technology, Strategy*, 8th edition) as a base for this series, and adapted and rewrote it for managers. This is a unique approach.

This series aims to aims to bridge the all-too-frequent gap between cutting edge academic research and theory, and management practice. That is, it provides a strongly managerial perspective, yet is rooted in solid academic research, complemented by memorable frameworks.

In particular, creating and marketing value in today's increasingly service and knowledge-intensive economy requires an understanding of the powerful design and packaging of intangible benefits and products, high-quality service operations and customer information management processes, a pool of motivated and competent front-line employees, building and maintaining a loyal and profitable customer base, and the development and implementation of a coherent service strategy to transform these assets into improved business performance. This series aims to provide the knowledge required to deliver these.

Winning in Service Markets comprises of the following volume:

Vol 1: Understanding Service Consumers
Vol 2: Positioning Services in Competitive Markets
Vol 3: Developing Service Products and Brands
Vol 4: Pricing Services and Revenue Management
Vol 5: Service Marketing Communications
Vol 6: Designing Customer Service Processes
Vol 7: Balancing Capacity and Demand in Service Operations
Vol 8: Crafting the Service Environment
Vol 9: Managing People for Service Advantage
Vol 10: Managing Customer Relationships and Building Loyalty
Vol 11: Designing Complaint Handling and Service Recovery Strategies
Vol 12: Service Quality and Productivity Management
Vol 13: Building A World-Class Service Organization

Contents

Introduction

From a customer's perspective, services are experiences. From the organization's perspective, services are processes that have to be designed and managed to create the desired customer experience. This makes processes the architecture of services. *Designing Service Processes* will discuss how service processes can be designed and improved to deliver the promised value proposition. This book is the sixth book in the Winning in Service Markets series by services marketing expert Jochen Wirtz to cover the key aspects of services marketing and management based on sound academic evidence and knowledge.

VOLUME 6

Designing Customer Service Processes

Well done is better than well said.

Benjamin Franklin
one of the Founding Fathers of the US, 1706–1790

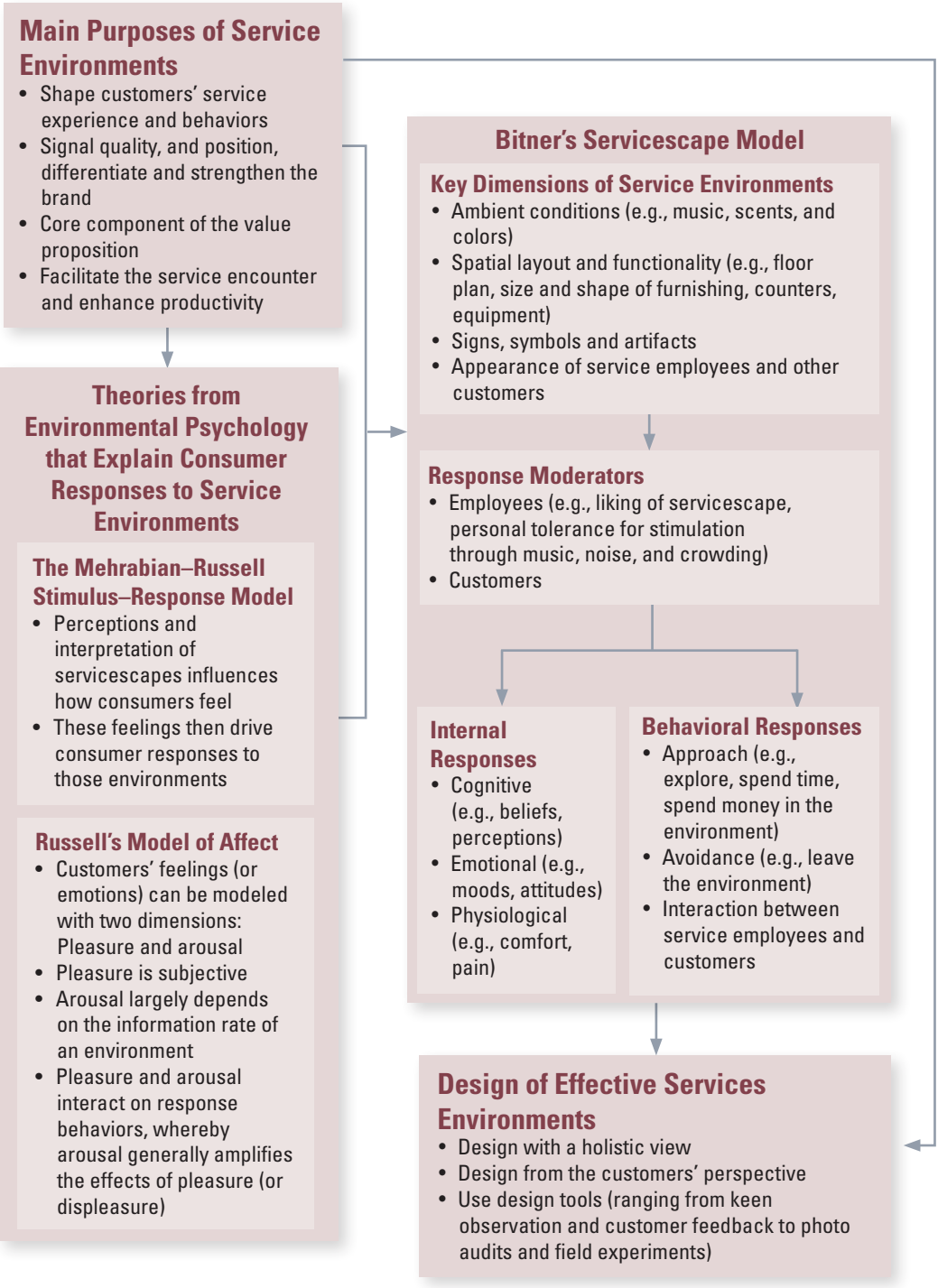
The new frontier of competitive advantage is the customer interface. Making yours a winner will require the right people and, increasingly, the right machines — on the front lines.

Jeffrey Rayport and Bernard Jaworski
Professor at Harvard Business School, founder and chairman of Marketspace LLC; and Professor at Claremont Graduate University, respectively

Ultimately, only one thing really matters in service encounters — the customer's perceptions of what occurred.

Richard B. Chase and Sriram Dasu
Professors at University of Southern California

Figure 1: Organizational framework



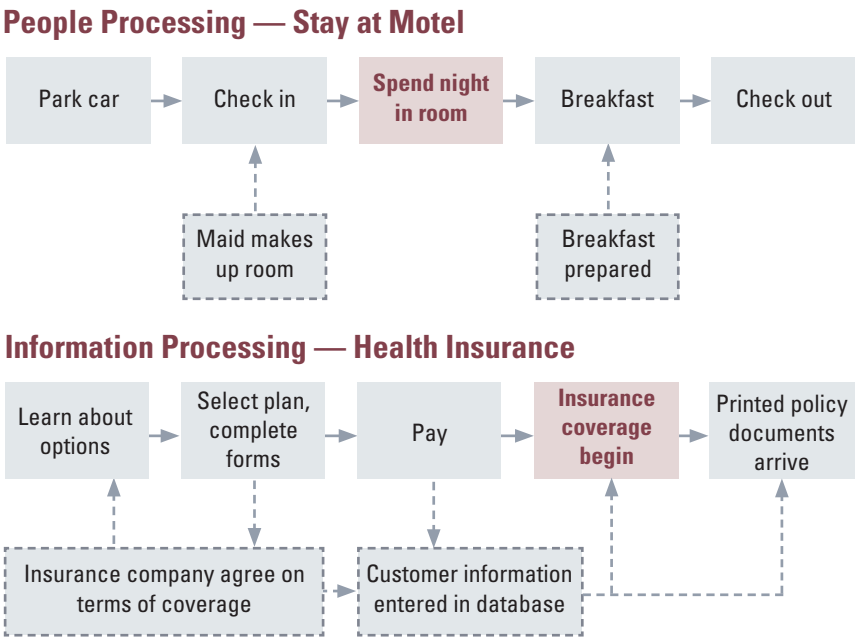
WHAT IS A SERVICE PROCESS?

From a customer's perspective, services are experiences. From the organization's perspective, services are processes that have to be designed and managed to create the desired customer experience. This makes processes the architecture of services. Processes describe the method and sequence in which service operating systems work, and specify how they are linked together to create the value proposition promised to the customers. Badly designed processes are likely to annoy customers because they often result in slow, frustrating, and poor quality service delivery. Similarly, poor processes make it difficult for front-line employees to do their jobs well, thus resulting in low productivity and increasing the risk of service failures. This volume will discuss how service processes can be designed and improved to deliver the promised value proposition (Figure 1).

DESIGNING AND DOCUMENTING SERVICE PROCESSES

The first step to design or analyze a process is to document or describe it. Flowcharting and blueprinting are two key tools used for documenting

Figure 2: Simple flowchart for delivery of motel service and health insurance service.



and redesigning existing service processes, and for designing new ones. To distinguish flowcharting and blueprinting from each other in a service context, a flowchart can be described as an existing process, often in a fairly simple form, while flowcharting is a technique for displaying the nature and sequence of different steps involved when a customer "flows" through the service process. It is an easy way to quickly understand the total customer service experience. Flowcharting the sequence of encounters customers have with a service organization yields valuable insights into the nature of an existing service. Figure 2 displays two simple flowcharts that demonstrate what is involved in each of the featured services.

Blueprinting is a more complex form of flowcharting that specifies in detail how a service process is constructed, including what is visible to the customer, and all that goes on in the back-office. It is not an easy task to create a service, especially one that must be delivered in real time with customers present in the service factory. To design services that are both satisfying for customers and operationally efficient, marketers and operations specialists need to work together, and a blueprint can provide a common perspective and language for the various departments involved.

The term blueprinting originated from the ship designing and construction industry who used to capture the architectural drawings for a new building or a ship called blueprints, the reproductions of which have been traditionally printed on special paper on which all the drawings and annotations appear in blue. These blueprints show what the product should look like and the detail specifications to which it should conform. In contrast to the physical architecture of a building or a piece of equipment, service processes have a largely intangible structure that makes them all the more difficult to visualize. The same is also true of processes such as logistics, industrial engineering, decision theory, and computer systems analysis, each of which employs blueprint-like techniques to describe processes involving flows, sequences, relationships, and dependencies.

Service blueprints map customer, employee, and service system interactions. More importantly, they show the full customer journey from service initiation to final delivery of the desired benefit, which may include many steps and service employees from different departments. For example, in the context of a cable service, it may involve a sales agent, an installation team, a call-center employee to do the scheduling, and the back-office officers to set up the billing and payment; all are

equally responsible for a trouble-free installation.[1] Blueprints show the key customer actions, how customers and employees from different departments interact (called the line of interaction), the front-stage actions by those service employees, and how these are supported by backstage activities and systems. By showing inter-relationships among employee roles, operational processes, supplies, information technology, and customer interactions, blueprints can help bring together marketing, operations, and human resource management within a firm. Together, they can then develop better service processes, including defining service scripts and roles to guide interactions between staff and customers designing fail points and excessive customer waits out of processes; and finally, setting the service standards and targets for service delivery teams.

Developing a Service Blueprint

In order to develop a service blueprint, all the key activities involved in creating and delivering the service in question have to be identified in the first step, and then the linkages between these activities are specified. Initially, it is best to keep the activities relatively aggregated in order to define the "big picture". This can be done by first developing a simple flowchart documenting the process from the customer's perspective and then refine any given activity by drilling down to obtain a higher level of detail. In an airline context for instance, the passenger activity of "boards aircraft" actually represents a series of actions and can be broken down into steps such as "wait for seat rows to be announced, give agent boarding pass for verification, walk down the jet way, enter aircraft, let flight attendant verify boarding pass, find a seat, stow carry-on bag, and sit down".

More details can be added next. Typical service blueprints have the following design characteristics that help to see how a blueprint should be developed[2]:

- *Front-stage activities* map the overall customer experience, the desired inputs and outputs, and the sequence in which delivery of that output should take place.
- *Physical evidence of front-stage activities* is what the customer can see and use to assess service quality.

- *Line of visibility* is a key characteristic of service blueprinting that distinguishes between what customers experience "front-stage", and the activities of employees and support processes "backstage" where customers cannot see them, between the two lines of what is called the line of visibility. When a firm clearly understands the line of visibility, it is able to better manage physical and other evidence for front-stage activities to give customers the desired experience and quality signals. Some firms are too focused on operations and neglect the customer's purely front-stage perspective. For instance, accounting firms often have detailed documented procedures and standards on how to conduct an audit, but may lack clear standards for hosting a meeting with clients, or for how staff members should answer the telephone.
- *Backstage activities* that must be performed to support a particular front-stage step.
- *Support processes and supplies* involve a lot of information. The information needed at each step in the blueprint is usually provided by information systems. For example, without the right information at the front-line staff's fingertips, processes such as banking, online broking, or even borrowing a book from your university library could not be completed, and the service process could break down. Supplies required to be made available for both front and backstage steps are also necessary for many services. For example, restaurants need to have the supplies of the right fresh produce and wines; and car rental firms of vehicles, global positioning systems (GPSs) and child seats. Supplies are essential to deliver high quality core services.
- *Potential fail points* can be identified by managers when they develop a blueprint of the service process. Fail points are where there is a risk of things going wrong, resulting in diminished service quality. When managers are aware of these fail points, they are better able to design them out of a process (such as by using *poka-yokes*, as discussed later in this volume) and have backup plans (such as for service recovery, as discussed in Volume 11) for unavoidable failures (e.g., departure delays due to bad weather).

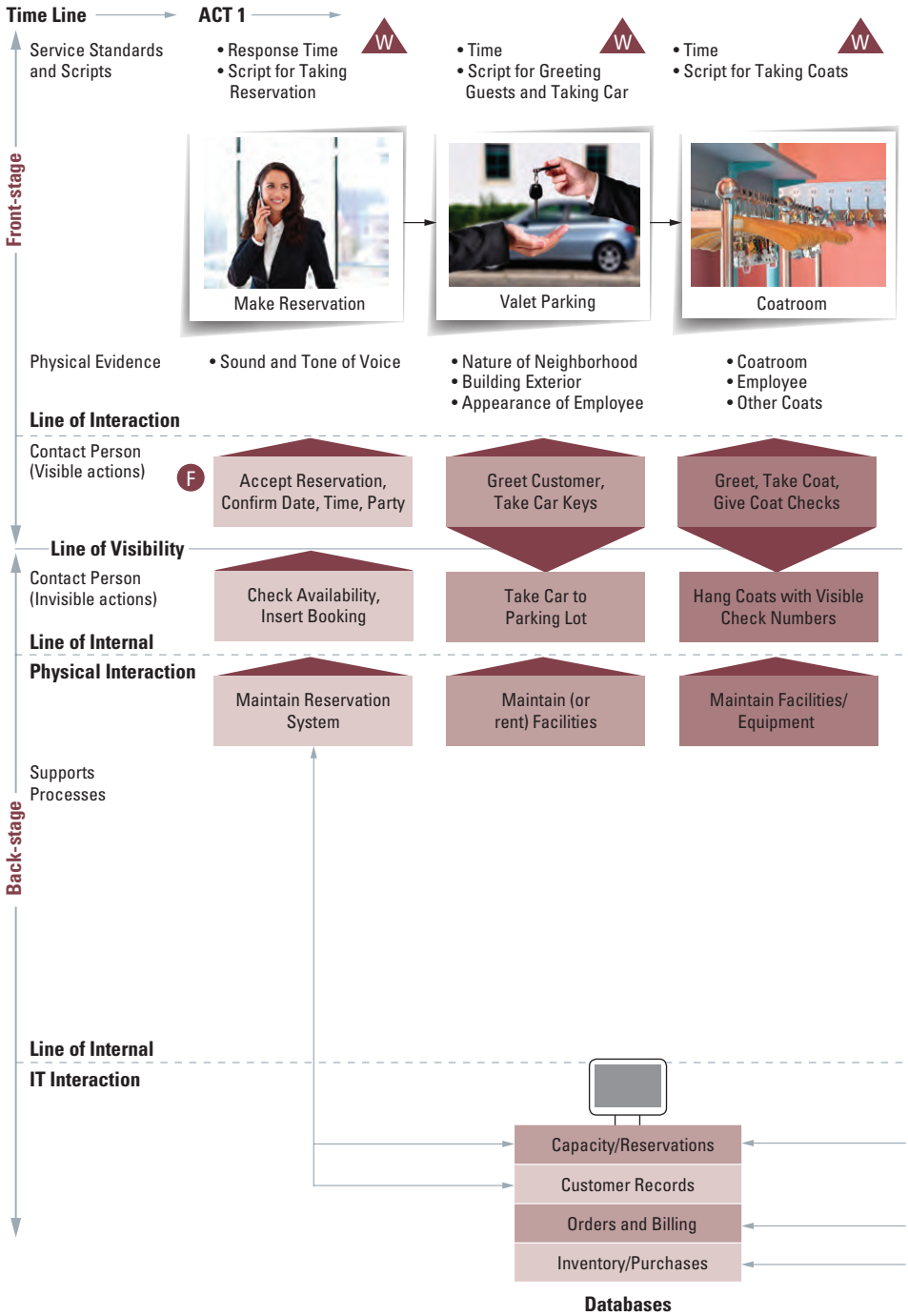
Figure 3: Long waiting lines indicate operational problems that need to be addressed.

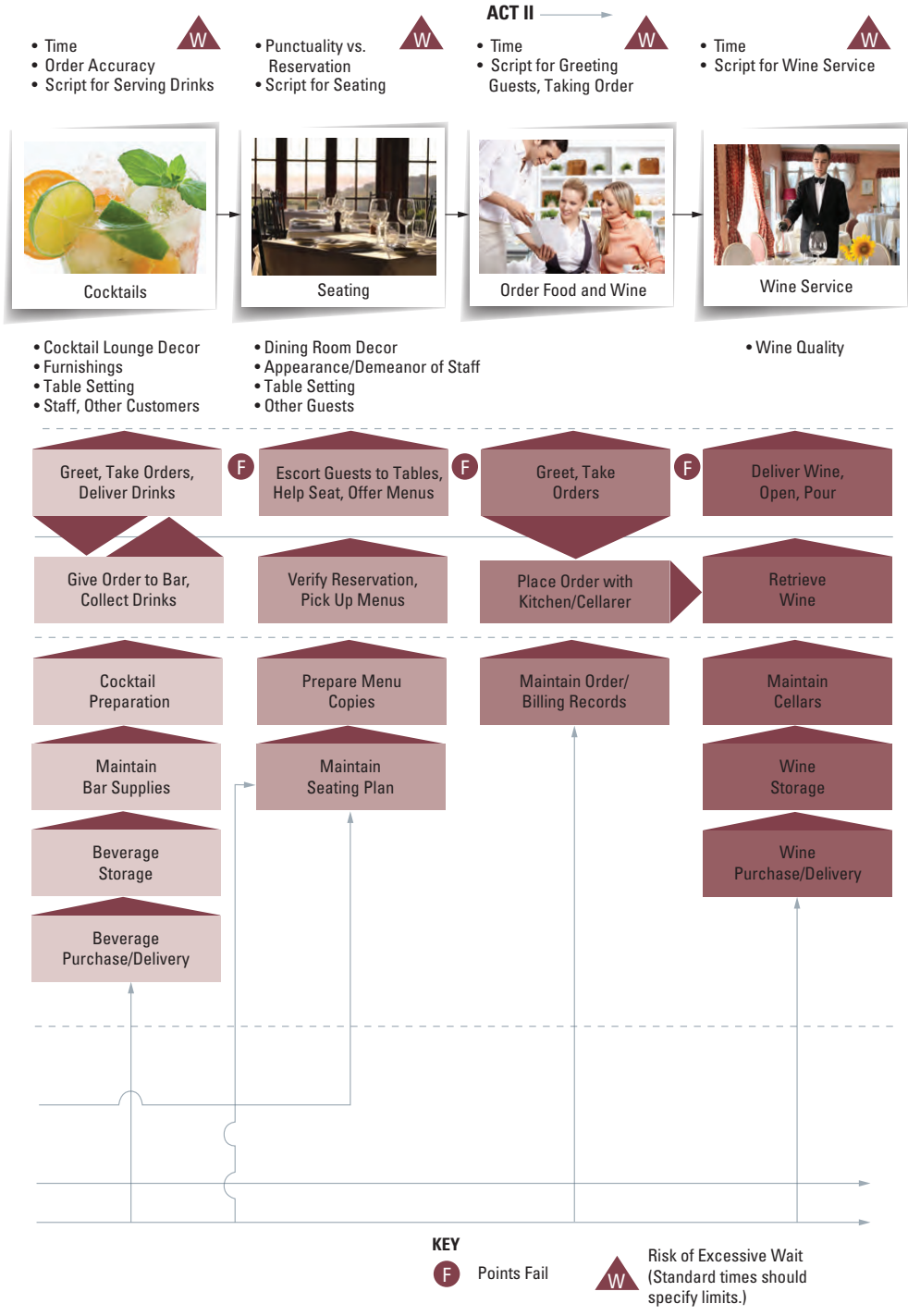
- *Identifying customer waits* — Blueprints can also pinpoint stages in the process at which customers commonly have to wait (Figure 3), and where there are points of potentially excessive waits. These can then either be designed out of the process, or if not always possible, firms can implement strategies to make waits less unpleasant for customers (see Volume 7).
- *Service standards and targets* should be established for each activity to reflect customer expectations. They include specific times set for the completion of each task and the acceptable wait between each customer activity. Developing service blueprints gives marketing and operational personnel detailed process knowledge that can then be used to develop standards. The final service blueprint should contain key service standards for each front-stage activity, including the estimated time for the completion of a task and maximum customer wait times in between tasks. Standards should then be used to set targets for service delivery teams to ensure that service processes perform well against customer expectations.

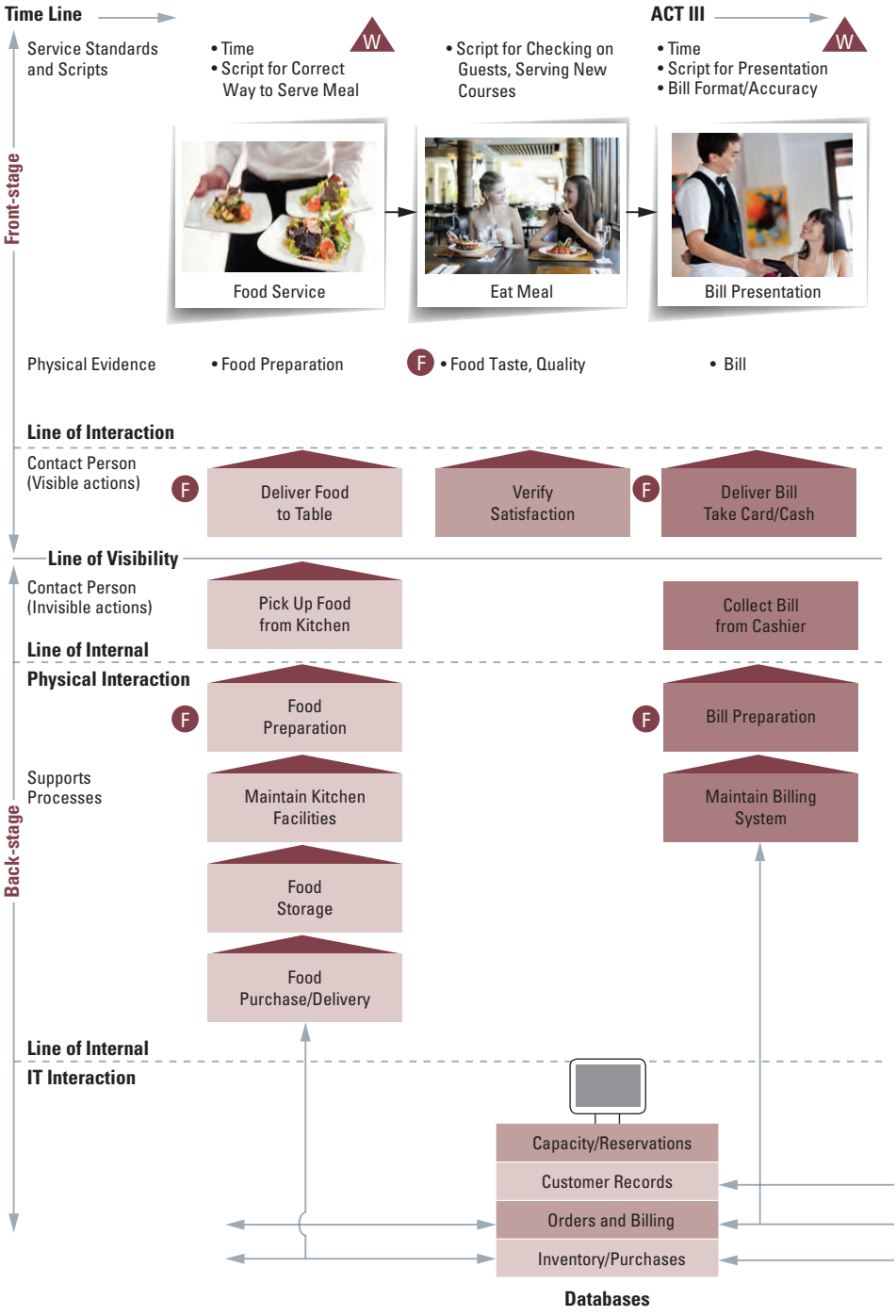
Blueprinting the Restaurant Experience: A Three-Act Performance

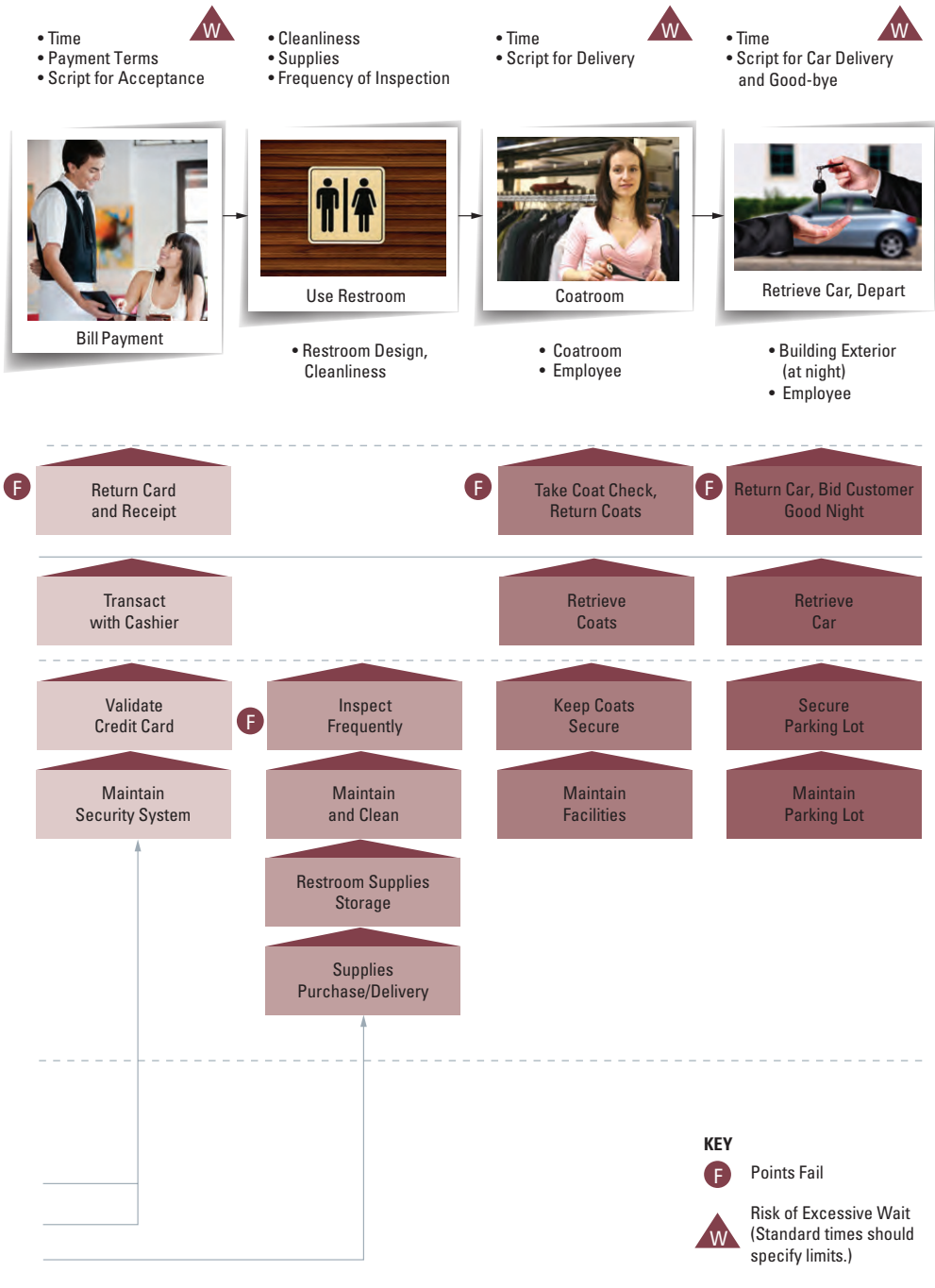
To illustrate how the blueprinting of a high-contact, people-processing service can be done, we examine the dinner experience for two at Chez Jean, an upscale restaurant that enhances its core food service with a variety of other supplementary services (Figure 4). A rule of thumb in full-service restaurants is that the cost of purchasing the food ingredients represents about 20% to 30% of the price of the meal. The balance can be seen as the fees that customers are willing to pay for a great dining experience that includes "renting" tables and chairs in a pleasant setting,

Figure 4: Blueprinting a full-service restaurant experience.




ACT II
• Time
• Order Accuracy
• Script for Serving Drinks
W
• Punctuality vs. Reservation
• Script for Seating
W
• Time
• Script for Greeting Guests, Taking Order
W
• Time
• Script for Wine Service
W
Cocktails
Seating
Order Food and Wine
Wine Service
• Cocktail Lounge Decor
• Furnishings
• Table Setting
• Staff, Other Customers
• Dining Room Decor
• Appearance/Demeanor of Staff
• Table Setting
• Other Guests
• Wine Quality
Greet, Take Orders, Deliver Drinks
F
Escort Guests to Tables, Help Seat, Offer Menus
F
Greet, Take Orders
F
Deliver Wine, Open, Pour
Give Order to Bar, Collect Drinks
Verify Reservation, Pick Up Menus
Place Order with Kitchen/Cellarer
Retrieve Wine
Cocktail Preparation
Prepare Menu Copies
Maintain Order/ Billing Records
Maintain Cellars
Maintain Bar Supplies
Maintain Seating Plan
Wine Storage
Beverage Storage
Wine Purchase/Delivery
Beverage Purchase/Delivery
KEY
F
Points Fail
W
Risk of Excessive Wait (Standard times should specify limits.)


Time Line
ACT III
Service Standards and Scripts
• Time
• Script for Correct Way to Serve Meal
W
• Script for Checking on Guests, Serving New Courses
• Time
• Script for Presentation
• Bill Format/Accuracy
W
Front-stage
Food Service
Eat Meal
Bill Presentation
Physical Evidence
• Food Preparation
F
• Food Taste, Quality
• Bill
Line of Interaction
Contact Person (Visible actions)
F
Deliver Food to Table
Verify Satisfaction
F
Deliver Bill Take Card/Cash
Line of Visibility
Contact Person (Invisible actions)
Pick Up Food from Kitchen
Collect Bill from Cashier
Line of Internal Physical Interaction
F
Food Preparation
F
Bill Preparation
Supports Processes
Maintain Kitchen Facilities
Maintain Billing System
Food Storage
Food Purchase/Delivery
Back-stage
Line of Internal IT Interaction
Capacity/Reservations
Customer Records
Orders and Billing
Inventory/Purchases
Databases


• Time
• Payment Terms
• Script for Acceptance
W
Bill Payment
• Cleanliness
• Supplies
• Frequency of Inspection
Use Restroom
• Restroom Design, Cleanliness
• Time
• Script for Delivery
W
Coatroom
• Coatroom
• Employee
• Time
• Script for Car Delivery and Good-bye
W
Retrieve Car, Depart
• Building Exterior (at night)
• Employee
F
Return Card and Receipt
F
Take Coat Check, Return Coats
F
Return Car, Bid Customer Good Night
Transact with Cashier
Retrieve Coats
Retrieve Car
Validate Credit Card
F
Inspect Frequently
Keep Coats Secure
Secure Parking Lot
Maintain Security System
Maintain and Clean
Maintain Facilities
Maintain Parking Lot
Restroom Supplies Storage
Supplies Purchase/Delivery
KEY
F
Points Fail
W
Risk of Excessive Wait (Standard times should specify limits.)

the food preparation services of expert chefs and their kitchen equipment, and serving staff to wait on them in the dining room.

Most service processes can be divided into three main steps:

1. Preprocess stage where the preliminaries occur, such as making a reservation, parking the car, getting seated, and being presented with the menu.
2. In-process stage where the main purpose of the service encounter is accomplished, such as enjoying the food and drinks in a restaurant.
3. Post-process stage where the activities necessary for the closing of the encounter happens, such as getting the check and paying for dinner.

It is important to differentiate these stages as customers tend to have different objectives and sensitivities in these stages. For example, research in the context of restaurants found that people are more upset about a delay during the pre-process or post-process stages than in-process stage.[3] Also, the pre- and post-process stages typically are not the core of the service, and customers want efficiency and convenience in those stages (e.g., a convenient way to get a reservation, and getting the check and payment done quickly when one wants to leave the restaurant), whereas the in-process stage has to deliver the core benefits of the service.

In Figure 4, a more theatrical terminology is used for these three acts to represent the three stages to connect to the theatre analogy perspective discussed in Volume 1, and to emphasize the drama and experience dimension of this service process.

The key components of the blueprint in Figure 4, reading from top to bottom, are:

1. Definition of standards for each front-stage activity (only a few examples are actually stated in the figure)
2. Principal customer actions (illustrated by pictures)
3. Physical and other evidence for front-stage activities (stated for all steps)
4. Line of interaction
5. Front-stage actions by customer-contact personnel
6. Line of visibility

7. Back-stage actions by customer-contact personnel
8. Support processes involving other service personnel
9. Support processes involving information technology

Reading from left to right, the blueprint prescribes the sequence of actions over time. In Volume 1, we compared service performances to theater. To emphasize the involvement of human actors in service delivery, we followed the practices adopted by some service organizations by using pictures to illustrate each of the 14 principal steps involving our two customers, beginning with making a reservation, and concluding with their departure from the restaurant after the meal. Like many high-contact services involving discrete transactions — as opposed to the continuous delivery found in utility or insurance services — the "restaurant drama" can be divided into three "acts", representing activities that take place before the core product is encountered, the delivery of the core product (in this case, the meal), and the subsequent activities still involved with the service provider.

The "stage" or servicescape includes both the exterior and interior of the restaurant. Front-stage actions take place in a very visual environment; restaurants are often quite theatrical in their use of physical evidence (such as furnishings, décor, uniforms, lighting, and table settings) and often employ background music in their efforts to create a themed environment that matches their market positioning.

Act I — Prologue and Introductory Scenes. In this particular drama, Act I begins with a customer making a reservation by telephone. This action could take place hours or even days in advance of visiting the restaurant. In theatrical terms, the telephone conversation can be matched with a radio drama, with impressions being created by the nature of the respondent's voice, speed of response, and style of the conversation. When our customers arrive at the restaurant, a valet parks their car, they leave their coats in the coatroom, and enjoy a drink in the bar area while waiting for their table. The act concludes with them being escorted to a table and seated.

These five steps constitute the couple's initial experience of the restaurant performance, each involving an interaction with an employee

— by phone or face-to-face. By the time the two of them reach their table in the dining room, they have been exposed to several supplementary services, and have also encountered a sizeable cast of characters, including five or more contact personnel, as well as many other customers.

Standards can be set for each service activity, but these should be based on a good understanding of guest expectations. Below the line of visibility, the blueprint identifies key actions to ensure that each front-stage step is performed in a manner that meets or exceeds customer expectations. These actions include recording reservations, handling customers' coats, delivery and preparation of food, maintenance of facilities and equipment, training and assignment of staff for each task, and the use of information technology to access, input, store, and transfer relevant data.

Act II — Delivery of the Core Product. As the curtain rises on Act II, our customers are finally about to experience the core service they came for. For simplicity, the meal scenario is condensed into four scenes. In practice, reviewing the menu and placing the order are two separate activities; whereas meal service proceeds on a course-by-course basis. If you were actually running a restaurant yourself, you would need to go into greater detail to identify each of the many steps involved in what is often a tightly-scripted drama. Assuming all goes well, the two guests will have an excellent meal, well-served in a pleasant atmosphere, and perhaps a fine wine to enhance it. However, if the restaurant fails to satisfy their expectations (and those of its many other guests) during Act II, it is going to be in serious trouble. There are numerous potential fail points. Is the menu information accurate? Is everything listed on the menu available this evening? Will explanations and advice be given in a friendly and non-condescending manner for guests who have questions about specific menu items, or are unsure about which wine to order?

After our customers decide on their meals, they place their orders with the server, who must then pass on the details to personnel in the kitchen, bar, and billing desk. Mistakes in transmitting information are a frequent cause of quality failures in many organizations. Bad handwriting, unclear verbal requests, or a wrong entry into a handheld wireless ordering device can lead to incorrect preparation or delivery of the wrong items altogether.

In the subsequent scenes of Act II, our customers may evaluate not

only the quality of food and drink — the most important dimension of all — but also how promptly it is served (not too quickly, for guests do not want to feel rushed), and the style of service. Even if the server can perform the job correctly, the experience of the customer can still be spoiled if the server is disinterested, unfriendly, or has an overly casual behavior.

Act III — The Drama Concludes. The meal may be over, but much is still taking place both front-stage and backstage as the drama moves to its close. The core service has now been delivered, and our customers are happily digesting. Act III should be short. The action in each of the remaining scenes should move smoothly, quickly and pleasantly, with no shocking surprises at the end. Most customers' expectations would probably include the following:

- An accurate, intelligible bill is presented promptly as soon as the customer requests it.
- Payment is handled politely and expeditiously (with all major credit cards accepted).
- The guests are thanked for their patronage and invited to come again.
- Customers visiting the restrooms find them clean and properly supplied.
- The right coats are promptly retrieved from the coatroom.
- The customer's car is brought to the door without much of a wait, in the same condition as when it was left. The attendant thanks them again and bids them a good evening.

Identifying Fail Points

Running a restaurant is a complex business and much can go wrong. A good blueprint should draw attention to the points in service delivery where things are particularly at risk of going wrong. From a customer's perspective, the most serious fail points, marked in our blueprint by *an F in a circle*, are those that will result in the failure to access or enjoy the core product. They involve items such as the reservation ("Could the customer get through by phone?", "Was a table available at the desired time and date?", or "Was the reservation recorded accurately?") and seating ("Was a table available when promised?").

Since service delivery takes place over time, there is also the possibility of delays between specific actions that require the customers to wait. Common locations for such waits are identified on the blueprint by *a W within a triangle.* Excessive waits will annoy customers. In practice, every step in the process — both front- and backstage — has some potential for failures and delays. In fact, failures often lead directly to delays (e.g., orders that were never passed on) or time spent correcting mistakes.

David Maister coined the acronym OTSU (opportunity to screw up) to stress the importance of thinking through all the things that might go wrong in the delivery of a particular service.[4] It is only by identifying all the possible OTSUs associated with a particular process that service managers can put together a delivery system that is designed to avoid such problems.

Fail-Proofing to Design Fail Points Out of Service Processes

Once fail points have been identified, careful analysis of the reasons for failure in service processes is necessary. This analysis often reveals opportunities for fail-proofing certain activities in order to reduce or even eliminate the risk of errors.[5]

One of the most useful Total Quality Management (TQM) methods in manufacturing is the application of *poka-yokes* or fail-safe methods to prevent errors in the manufacturing processes. The term *poka-yoke* is derived from the Japanese words *poka* (inadvertent errors) and *yokeru* (to prevent). Richard Chase and Douglas Steward introduced this concept to fail-safe service processes.[6] Server *poka-yokes* ensure that service employees do things correctly, as asked, in the right order and at the right speed. Examples include surgeons whose surgical instrument trays have individual indentations for each instrument. For a given operation, all of the instruments are nested in the tray so that it is clear if the surgeon has not removed all the instruments from the patient before closing the incision (Figure 5).

Some service firms use *poka-yokes* to design frequently occurring service failures out of the service processes, and to ensure that certain steps or standards in the customer-staff interaction are followed. A bank ensures eye contact by requiring tellers to record the customer's eye color on a checklist at the start of a transaction. Some firms place mirrors at the exits of staff areas, and front-line staff can then automatically check their

Figure 5: The practice of poka-yoke is observed in the operating room.

appearance before greeting a customer. At one restaurant, servers place round coasters in front of those diners who have ordered a decaffeinated coffee and square coasters in front of the others, and Starbucks barristers are trained to repeat their customers' orders to ensure that the correct coffee is served.

Designing *poka-yokes* is part art and part science as most of the procedures seem trivial, but this is actually a key advantage of this method. A three-step approach for effectively using *poka-yokes* includes systematically collecting data on problem occurrence, analyzing the root causes, and establishing preventive solutions. This process is described in the context of preventing failures caused by customers in *Service Insights 3* later in this volume.

Setting Service Standards and Targets

The service blueprint, combined with discussions with customers and front-line employees, helps firms to see which service and process attributes are important to customers at each touch point. Through both formal research and on-the-job experience, service managers can learn the nature of customer expectations at each step in the process. Customers' expectations range across a spectrum — referred to as the zone of tolerance — from desired service (an ideal) to a threshold level of merely adequate service.

Those aspects of the service process that require the attention of management (i.e., attributes that are most important to customers and most difficult to manage) should be the basis for setting standards. Service providers should design standards for each step sufficiently high to satisfy and even delight customers; if that is not possible, they will need to modify customer expectations. These standards might include time parameters, the script for a technically correct performance, and prescriptions for appropriate style and demeanor. Our restaurant blueprint shows key standards for each touch point.

As the axiom "What is not measured is not managed" goes, standards must be expressed in ways that permit objective measurement. Process performance needs to be monitored against standards, and compliance targets need to be determined. Importantly, even soft and intangible (but important) service attributes need to be made measurable. This is often achieved through using service process indicators that try to capture the essence of, or at least approximate, these important attributes.

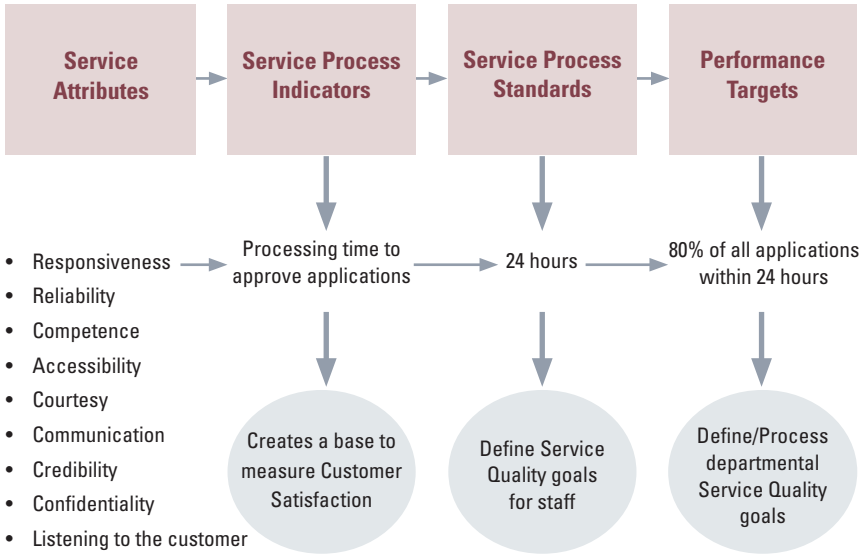
For example, in a retail banking context, the attribute "responsiveness" can be operationalized as "processing time to approve a loan application". Service standards are then ideally based on customer expectations and policy decisions which, in turn, are based on how these expectations can be met cost effectively. In cases where standards do not meet customer needs, expectations need to be managed (e.g., when dealing with exceptional cases, expected application approval times can be communicated by service employees verbally).

Finally, performance targets define specific process and/or team performance targets (e.g., 80% of all applications within 24 hours) for which team leaders will be held accountable for. Figure 6 shows the relationship between indicators, standards, and targets.

The distinction between standards and performance targets is important. As they are subsequently used for evaluating staff, branch, and/or team performance, it makes the setting of standards and targets highly sensitive and political. By separating standards and targets, the firm can be 'hard' about reflecting customer expectations in the performance standards, but 'realistic' about what the teams can actually deliver.

In practice, management can stand firm on setting the right standards (i.e., according to customer needs and expectations), and go easy on negotiating performance targets that reflect operational reality

Figure 6: Setting standards and targets for customer service processes.



(i.e., it may not be possible to consistently achieve the standards). This separation of standards and targets can be important for three reasons. First, the correct (i.e., customer-driven) standards get communicated to and are internalized by the organization. Second, when implemented well, process owners, and department or branch managers will, over time, raise their performance levels through continuous and incremental improvements to bring them more in line with customer expectations. Third, it facilitates buy-in and support for the (tough) service standards as it also provides latitude to management and staff.[7]

Consumer Perceptions and Emotions in Service Process Design[8]

As Jason Barger, author and consultant, said: "People will forget what you said, people will forget what you do, but people will never forget how you made them feel". Therefore, service processes also need to be designed with emotional intelligence.

Sriram Dasu and Richard Chase highlighted key principles about sequencing service encounters based on their in-depth research in designing emotionally smart processes[9]:

1. *Start strong.* Ideally, service firms should try to provide consistently high performance at each step. In reality however, many service performances are inconsistent. Nevertheless, it is always important to start and finish strong. The opening scenes of a service drama are particularly important because customers' first impressions can affect their evaluations of quality during the later stages of the service delivery. Perceptions of their service experiences tend to be cumulative. If a few things go badly at the outset, customers may simply walk out. Even if they stay, they may now be looking for other things that are not quite right. On the other hand, if the first few steps go well, their zone of tolerance may increase so they are more willing to overlook minor mistakes later on in the service performance.
2. *Build an improving trend.* People in general like things to keep moving in a positive direction. Thus, a service encounter that is perceived to start at an adequate level and then builds up in quality is generally rated better than one that starts well but declines at the end.[10]
3. *Create a peak.* To improve the perception of your service, you are better off making one step sensational and the other steps merely adequate. Customers tend to remember the peak! For example, the Sea World in Orlando could spend more money on various attractions, but the thing that counts — the signature Shamu the Whale show — must be done to perfection.
4. *Get bad experiences over with early.* Unpleasant news (e.g., about delays), discomfort (e.g., as part of medical treatments), unpleasant tasks (e.g., completing registration forms), and unavoidable long waits should be early in the experience, not at the end. This way, customers avoid the dread of pain or aggravation, and these negative aspects of the experience are less likely to dominate the memory of the entire service encounter.
5. *Segment pleasure, combine pain.* Since an event is perceived as longer when it is segmented or broken up into separate steps, service processes should extend the feeling of pleasurable experiences by dividing them, and combining unpleasant experiences into a single event as far as possible.

6. *Finish strong.* Performance standards should not be allowed to fall off toward the end of service delivery. Rather, the finish should be strong — think of rock concerts which always conclude with big hits, comedians who save their best jokes for the end, and fireworks close with an amazing array of colors lighting the sky and a deafening finale. Ending on a high note is an important aspect of every service encounter, even if it is just a cheerful and affirmative: "Have a nice day!"

Emotionprints. In order to manage the customer experience well and implement the principles for sequencing service processes, firms can also map the expected associated emotions at each stage of the service processes. Flowcharts that describe how customers feel are called emotionprints. For example, it can be anticipated that expectant mothers will feel happy and excited when they first see the ultrasound photo of their baby. On the other hand, they may also be anxious during a test for abnormalities in a fetus. Hence, hospitals can anticipate common customer emotions at each step in a process and train their staff to react accordingly. An attitude of celebration would include cheering and applauding. On the other hand, faced with an emotionally negative situation in the service process, staff could show compassion, listen attentively and speak softly.[11]

Finally, the restaurant example was deliberately chosen to illustrate a familiar high-contact, people-processing service. However, many possession-processing services (such as repair or maintenance) and information-processing services (such as insurance or accounting) involve far less contact with customers, because much of the action takes place backstage. In these situations, a failure committed at the front-stage is likely to be viewed even more seriously by customers as it represents a higher proportion of the customer's service encounters with a company. Furthermore, the firm has fewer subsequent opportunities to create a favorable impression.

SERVICE PROCESS REDESIGN

Service processes become outdated over time as changes in technology, customer needs, added service features, new service offerings, and even changes in legislation make existing processes inefficient or irrelevant.

Mitchell T. Rabkin MD, former president of Boston's Beth Israel Hospital (now Beth Israel-Deaconess Medical Center, a teaching hospital of Harvard Medical School), characterized the problem as "institutional rust" and declared: "Institutions are like steel beams — they tend to rust. What was once smooth, shiny and nice tends to become rusty".[12] He suggested two main reasons for this deterioration of processes. The first involves changes in the external environment that make existing practices obsolete, and thus, require the redesign of underlying processes — or even the creation of brand-new processes — in order for the organization to remain relevant and responsive. In healthcare, such changes may reflect new forms of competition, legislation, technology, health insurance policies, and evolving customer needs.

The second reason for institutional rusting occurs internally. Often, it reflects a natural weakening of internal processes, creeping bureaucracy, or the development of unofficial standards (*Service Insights 8.1*). There are many symptoms that indicate the processes are not working well and need to be redesigned. They include:

- A lot of information exchange is needed with the customer and between different service units as the data available is not useful.
- A high ratio of checking or control activities to value-adding activities.
- Increased processing of exceptions.
- Growing number of customer complaints about inconvenient and unnecessary procedures.

SERVICE INSIGHTS 1

Rooting Out Unofficial Standards in a Hospital[13]

One of the distinctive characteristics of Mitchell T. Rabkin's 30-year tenure as president of Boston's Beth Israel Hospital was his policy of routinely visiting all areas of the hospital. He usually did so unannounced and in a low-key fashion. No one working at the hospital was surprised to see Dr. Rabkin drop by at almost any time of the day or night. His natural curiosity gave him unparalleled

insights into how effectively service procedures were working and the subtle ways in which things could go wrong. As the following story reveals, he discovered that there is often a natural deterioration of messages over time.

One day, I was in the EU (emergency unit), chatting with a house officer (physician) who was treating a patient with asthma. He was giving her medication through an intravenous drip. I looked at the formula for the medication and asked him, "Why are you using this particular cocktail?" "Oh," he replied, "that's hospital policy." Since I was certain that there was no such policy, I decided to investigate.

What had happened went something like this. A few months earlier, Resident (physician) A says to Intern B, who is observing her treat a patient: "This is what I use for asthma." On the next month's rotation, Intern B says to new Resident C: "This is what Dr. A uses for asthma." The following month, Resident C says to Intern D, "This is what we use for asthma." And finally, within another month, Intern D is telling Resident E, "It's hospital policy to use this medication."

As a result of conversations like these, well-intentioned but unofficial standards keep cropping up. It is a particular problem in a place like this, which is not burdened by an inhuman policy manual where you must look up the policy for everything you do. We prefer to rely on people's intelligence and judgment and limit written policies to overall, more general issues. One always has to be aware of the growth of institutional rust and to be clear about what is being done and why it is being done.

Service Process Redesign Should Improve Both Quality and Productivity

Managers in charge of service process redesign projects should look for opportunities to achieve a quantum leap in both productivity and service quality at the same time.[14] *Service Insights 2* shows how a small hospital practice did just that.

SERVICE INSIGHTS 2

Redesigning Customer Service in a Small Hospital Practice[15]

Things were not going smoothly at Family Medicine Faculty Practice (FMFP), a small practice within a hospital system. Its patients were often placed on hold for long times when they called; there was a lack of available and convenient appointment slots; the waiting room was frequently crowded with lengthy delays before patients could see their doctors.

Dr Schwartz, the medical director, and Dr Bryan, the assistant medical director, decided to change this situation and engaged Coleman Associates, a consulting firm that specializes in redesigning processes. Over the course of four days, a Coleman Associates team worked closely with the clinic's staff on-site, shoulder-to-shoulder, and radically redesigned work processes. It was an amazing transformation; the redesign started on a Monday afternoon, and by Friday morning the Faculty Practice was operating in a whole new way!

The Redesigned Service Model

FMFP had altogether 12 staff, of which nine were support staff and three were physicians. The clinic was considered lean with only three support staff per physician, which is much lower than the national average of 4.8. As a central part of the redesign, staff were reorganized into three Patient Care Teams. Each Patient Care Team consisted of a clinician, a medical assistant, and a receptionist who acted like a one-stop shop for all the patients in their care. The Patient Care Teams took care of all tasks related to their patients, including walk-ins, collection of co-payments, filing of medical charts, confirming the next day's appointments, checking insurance eligibility, and any other patient transactions.

The three Patient Care Teams shared three 'back office' staff which had the following redesigned roles: a medical records staffer, a phone attendant, and a flowmaster not specifically assigned to any of the three teams. The medical records staff was in charge of getting medical charts 24-hours in advance of clinic sessions and filing

lab results in charts on a real-time basis so that no work was left to accumulate. If a patient called FMFP for an appointment, the call would be answered by the phone attendant. The flowmaster was in-charge of moving patients from the front waiting room into the exam rooms and out as smoothly and as fast as possible. The flowmaster communicated with each Patient Care Team's medical assistant to get an accurate estimate of the wait time for each patient. Basically, the flowmaster solved any flow problems occurring in the clinic to keep the visit cycle time within 45 minutes for 90% of all visits.

After the redesign, the phone attendant picked up calls and passed it to the relevant Patient Care Team receptionist. In future, they had further plans for direct lines to each Patient Care Team to eliminate the traffic to the phone attendant. The receptionists would be given wireless phones so that patient calls could still be picked up even as they filed medical charts from visits already completed. Patient Care Team receptionists filed charts immediately after visits, thus reducing the incidence of lost charts.

During the booking of appointments, if a patient had a question the receptionist could not answer, she would communicate directly, via walkie-talkie, with the Patient Care Team's medical assistant to get an immediate answer so that work was handled on a real-time basis and not stacked up to be dealt with later.

New tools and equipment helped to stretch FMFP's available resources. For example, digital floor scales were placed in every exam room to weigh adult patients quickly and privately, so there was no need for an extra stop at vitals station. In fact, all work was done in the exam room reflecting the redesign principle: "Organize our work around the patient, not the patient around our work."

As staff gained more experience working together every day in their Patient Care Teams, they also became stronger and more adept in handling variations in patient flow. Stacks of paper seemingly melted during the week when work was redesigned.

FMFP's staff worked harder than ever, but they were also thrilled with the results and all the compliments they received from delighted patients about the new service processes.

Examining service blueprints is an important step in identifying such opportunities and then redesigning the ways in which tasks are performed. Redesign efforts typically focus on achieving the following four key objectives, and ideally, redesign efforts should achieve all four simultaneously:

1. Reduced number of service failures
2. Reduced cycle time from customer initiation of a service process to its completion
3. Enhanced productivity
4. Increased customer satisfaction

Service process redesign often involves reconstruction, rearrangement, and substitution of service processes. These efforts typically include[16]:

- *Examining the service blueprint with key stakeholders.* By closely examining blueprints of existing services, managers can identify problems in a service process, and discover ways to improve it. Each of the stakeholders in a process (i.e., customers, front-line employees, support staff, and IT teams) should be invited to review the blueprint with the purpose of brainstorming for ideas on how to improve the process. This involves identification of missing or unnecessary steps and changes in sequence. Stakeholders also highlight ways in which developments in information technology, equipment and new methods offer advantages.

  For example, Avis does research each year on what factors car renters care about the most. The company breaks down the car rental process into more than 100 incremental steps, including making reservations, finding the pickup counter, getting to the car, driving it, returning it, paying the bill, and so forth. Because Avis knows customers' key concerns, it claims it can quickly identify ways to improve their satisfaction while also driving the firm's productivity. What travelers desire most is to get their rental car quickly and drive away, so the firm has designed its processes to achieve that goal. "We're constantly making little enhancements around the edges," says Scott Deaver, company's then-Executive Vice President for Marketing. Obviously, Avis is living up to its tagline, "We Try

Harder", which the company has employed for some 40 years. "It's not a slogan," says Deaver, "it's in the DNA of the place."

- *Eliminating non-value adding steps.* Often, activities at the front- and back-end processes of services can be streamlined with the goal of focusing on the benefit-producing part of the service encounter. The outcomes of such process redesigns typically include increased productivity and customer satisfaction at the same time.

  For example, a customer wanting to rent a car is not interested in filling out forms, processing payment, or waiting for the returned car to be checked. Service redesign tries to eliminate such steps that customers do not view as value adding. Now, some car rental companies allow customers to rent a car online and pick it up from a designated car park, where a large electronic board lists the name of the customer, the car, and the parking lot numbers. The key is in the car, and the only interaction with a car rental employee is at the exit when driving the car out of the carpark where the customer's driving license is checked and the contract is signed (including the customer confirming the condition of the car). When returning the car, it is simply parked at an allocated area at the rental company's carpark, the key is dropped into a safe deposit box, the final bill is deducted from a predetermined customer credit card and emailed to the billing address, and the customer does not have to come into contact with service personnel.
- *Addressing bottlenecks in the process.*[17] Bottlenecks and resulting customer waits are a feature of many service processes. It is the step in the service process with the lowest throughput rate that determines the effective capacity of the entire process. For an efficient process, ideally all the steps should have the same capacity so that none of the stations form a bottleneck or stays idle. The objective is to design a balanced process in which the processing times of all the steps are approximately the same, and consumers "flow" smoothly through the process without having to wait at any one step.

  Determining the processing time and capacity for each step in the blueprint allows one to see the actual capacity available in each step. One way to identify bottlenecks is to simply observe where customers have to wait. Once bottlenecks are identified, management can address them by devoting more and better resources, and/or

redesigning the process and its tasks to increase capacity (see also Volume 7 for other ways to manage service capacity).

- *Shifting to self-service.* Significant productivity and sometimes even service quality gains can be achieved by increasing self-service. For example, decades ago, FedEx already aimed and succeeded in shifting more and more of its transactions from its call centers to its website, thus reducing the number of employees in its call centers by tens of thousands of people.[18] Businesses are also taking advantage of smartphones and tablets to shift to self-service. One example is Fish & Co., an innovative seafood restaurant chain in Southeast Asia and the Middle East which replaced its menu with an iPad so that customers can perform self-service ordering. An app shows all the delicious food available with lots of drilldown information if desired, and allows diners to send their orders directly to the kitchen. At the back-end, the app links to the restaurant's point-of-sale system to complete the order. Customers can have fun by connecting to social media websites like Facebook to share their meal orders and comments with their friends. The app also has features that upsell menu items and combine dishes with recommended side orders.[19]

Figure 7: Here is a look at Nao, the 58-centimeter-tall humanoid robot that can analyze customers' facial expressions and behaviors, and answer the most basic questions related to customer-service.

Although not self-service in the traditional sense, robots will increasingly be deployed to serve customers, and customers need to feel comfortable interacting with robots in the same way they learned to interact with ATMs and websites. For example, the Bank of Tokyo Mitsubishi UFJ in Tokyo will use robots to greet their customers, answer basic questions, and guide them to the correct service counter. Nao, a 58-centimeter tall robot model, can analyze customers' facial expressions and behaviors, and answer the most basic questions related to customer service (Figure 7). Bank spokesman Kazunobu Takahara said: "We can ramp up communication with our customers by adding a tool like this." The robot costs around $8,000, a fraction of the costs of having front-line employees performing these tasks, and it can speak up to 19 languages in preparation for the Tokyo 2020 Olympics![20]

CUSTOMER PARTICIPATION IN SERVICE PROCESSES

Service process redesign for productivity and efficiency often calls for customers to become more involved in the delivery of the service. Blueprinting helps to specify the role of customers, and to identify the extent of contact between them and service providers.

Customers as Service Co-Creators

Customer participation refers to the actions and resources supplied by customers during service production, including mental, physical, and even emotional inputs.[21] Some degree of customer participation in service delivery is unavoidable in many services that involve real-time contact between customers and providers. However, the extent of such participation varies widely.[22]

Customers can be thought of as service co-creators. Value is created when the customer and service providers interact during production, consumption, and delivery of the service. This means that customers are actively participating in the process, and that their performance affects the quality and productivity of output. Therefore, service firms need to look at how customers themselves can contribute effectively to value creation, and firms need to educate and train customers to have the skills and motivation needed to perform their tasks well.[23]

Reducing Service Failures Caused by Customers

In addition to educating customers, *poka-yokes* can be used to develop systems that make customers perform their roles effectively in service processes. Stephen Tax, Mark Colgate, and David Bowen found that customers cause about one-third of all service problems.[24] Therefore, firms should focus on preventing customer failures as is described in *Service Insights 3*.

SERVICE INSIGHTS 3

A Three-Step Approach to Preventing Customer Failures

Fail-safe methods (or *poka-yokes*) need to be designed not only for employees but also for customers, especially when customers participate actively in the creation and delivery processes. Customer *poka-yokes* focus on preparing the customer for the encounter (including getting them to bring the right materials for the transaction and to arrive on time, if applicable), understanding and anticipating their role in the service transaction, and selecting the correct service or transaction.

A good way is to use the following three-step approach to prevent customer-generated failures:

(1) Systematically collect information on the most common failure points.

(2) Identify their root causes. It is important to note that an employee's explanation may not be the true cause. Instead, the cause must be investigated from the customer's point of view. Human causes of customer failure include lack of needed skills, failure to understand their role, and insufficient preparation. Some processes are complex and unclear. Other causes may include weaknesses in the design of the servicescape or self-service technology (e.g., "unfriendly" user machines and websites).

(3) Create strategies to prevent the failures that have been identified. The five strategies listed below may need to be combined for maximum effectiveness.

(i) Redesign the customer involvement in the process (e.g., redesign customers' role as well as processes). For example, aircraft lavatory doors must be locked in order for the lights to be switched on. ATMs use beepers so that customers do not forget to retrieve their cards at the end of their transaction. In future, customer identification with cards and PINs at ATMs are likely to be replaced by biometric identification (e.g., retina reading combined with voice recognition), thereby designing lost cards or forgotten PIN problems out of the process, and increasing customer convenience.

(ii) Use technology. For example, some hospitals use automated systems that send short text messages or emails to patients to confirm and remind them of their appointments, and inform them on how to reschedule an appointment, if required.

(iii) Manage customer behavior. For example, one may print dress code requests on invitations, send reminders of dental appointments, or print user guidelines on customer cards (e.g., "Please have your account and PIN number ready before calling our service representatives").

(iv) Encourage "customer citizenship" (e.g., customers help one another to prevent failure, e.g., in weight-loss programs).

(v) Improve the servicescape. For example, many firms forget that customers need user-friendly directional signs to help them find their way around; failing which, they might become frustrated.

Helping customers to avoid failure can become a source of competitive advantage, especially when companies increasingly use self-service technologies.

Source: Stephen S. Tax, Mark Colgate, and David E. Bowen, "How to Prevent Customers from Failing," *MIT Sloan Management Review*, 47, Spring 2006, pp. 30–38.

SELF-SERVICE TECHNOLOGIES

The ultimate form of involvement in service production is for customers to undertake a specific activity on their own, using facilities or systems provided by the service supplier. In effect, customer's time and effort replaces that of a service employee. In the case of Internet- and app-based services, customers even provide their own terminals.

Consumers are faced with an array of self-service technologies (SSTs) that allow them to produce a service without direct service employee involvement.[25] SSTs include automated banking terminals, self-service scanning at supermarket checkouts, self-service gasoline pumps, and automated telephone systems such as phone banking, automated hotel checkout, self-service train ticketing machines (Figure 8), and numerous Internet- and app-based services.

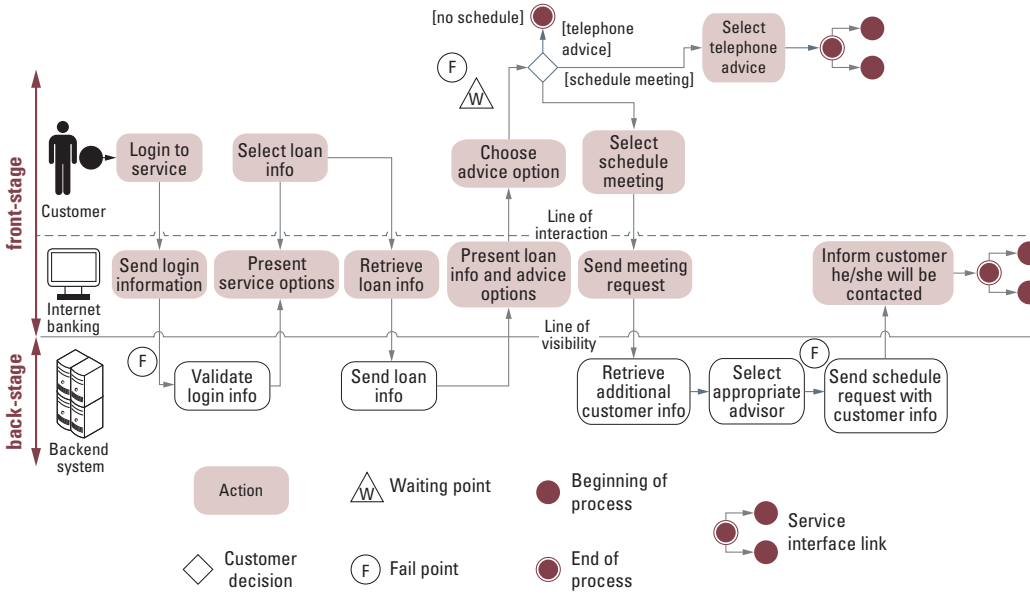
Information-based services lend themselves particularly well to the use of SSTs, and include not only supplementary services such as getting information, placing orders and reservations, and making payments, but also the delivery of core products in fields such as banking, research, entertainment, and self-paced education. Even consultation and sales processes, traditionally carried out face-to-face, have been transformed into self-service processes with the use of electronic recommendation agents (*Service Insights 4*).[26]

Figure 8: Tourists appreciate easy-to-understand instructions when traveling abroad and making payment for train tickets.

Many companies have developed strategies designed to encourage customers to serve themselves through apps and the Internet. They hope to divert customers from using more expensive alternatives such as face-to-face contact with employees, use of intermediaries such as brokers and travel agents, or voice-to-voice telephony. Using service blueprints (Figure 9) helps to visualize and design self-service processes.

Increasingly, customers also help each other in peer-to-peer problem solving, facilitated by online brand communities and firm-hosted platforms. Research has

Figure 9: Blueprint for a self-service internet-delivered banking process.



Source: Lia Patrício, Raymond P. Fisk, João Falcão e Cunha, and Larry Constantine (2011), "Multilevel Service Design: From Customer Value Constellation to Service Experience Blueprinting," *Journal of Service Research*, Vol. 14, No. 2, pp. 180–200; Reprinted by Permission of SAGE Publications, Inc.

shown that encouraging customers to help themselves by posting their questions, and to help others by responding to peer questions reduces the resources a firm has to expand on traditional customer support services. Promoting peer-to-peer customer interactions is a strategic lever to increase the efficiency and effectiveness of a firm's support service.[27]

Nevertheless, not all customers take advantage of SSTs. Matthew Meuter and his colleagues observe: "For many firms, often the challenge is not managing the technology but rather getting consumers to try the technology".[28]

SERVICE INSIGHTS 4

Making Electronic Recommendation Agents More Effective

Consumers often face a bewildering array of choices when purchasing goods and services from online vendors. One way in which these "e-tailers" try to assist consumers is to offer electronic

recommendation agents as part of their service. Recommendation agents are low-cost "virtual salespeople" designed to help customers make their selections from among large numbers of competing offerings. These recommendation agents generate rank-ordered lists according to predicted consumer preferences. However, research by Lerzan Aksoy shows that many existing recommendation agents rank options in different ways than customers do. For example, they weigh product attributes differently from customers, and they use alternative decision strategies that do not match the simple rules of thumb used by customers.

The research simulated the selection of a cell phone from among 32 alternatives, described on a website as each having differing features relating to price, weight, talk time, and standby time. The study results demonstrated that it helps consumers to use a recommendation agent that thinks like them, either in terms of attribute weights or decision strategies. When the ways in which agents work are completely dissimilar, consumers may actually be worse off than if they had simply used a randomly ordered list of options. Even though the subjects in this research tended to listen to the agent's recommendations, those who felt it had a dissimilar decision strategy and dissimilar attribute weights from their own, were less likely to come back to the website, recommend it to friends, or believe that the site had met their expectations well.

In conclusion, to make recommendation agents add value to the customer and enhance sales and repeat business, firms need to closely understand their customers' decision making strategies, attributes, and attribute weightings (refer to Volumes 1 and 2).

Source: Lerzan Aksoy, Paul N. Bloom, Nicholas H. Lurie, and Bruce Cooil, "Should Recommendation Agents Think Like People?" *Journal of Service Research*, 8, May 2006, pp. 297–315.

Customer Benefits and Adoption of Self-Service Technology

Given the significant investment in time and money required for firms to design, implement and manage SSTs, it is critical for service marketers to understand how consumers decide between using an SST option and relying on a human provider. Multiple attitudes drive customer intentions

to use a specific SST, including overall attitudes toward related service technologies, toward the specific service firm and its employees, and importantly, the overall perceived benefits, convenience, costs and ease of use customers see in using an SST.[29] Firms need to recognize that SSTs present both advantages and disadvantages for their customers. Key advantages of using SSTs include[30]:

- Greater convenience, including time savings, faster service, flexibility of timing (e.g., through 24/7 availability) and flexibility of location (e.g., many ATMs). Customers love SSTs when they bail them out of difficult situations, often because SST machines are conveniently located and accessible 24/7. A website is as close as the nearest computer or smartphone, making this option much more accessible than the company's physical sites.
- Greater control over service delivery, more information, and higher perceived level of customization.
- Lower prices and fees.

Success at the customer interface requires an understanding of what target customers want from an interaction. Sometimes a well-designed SST can deliver better service than a human being. Said one customer about the experience of purchasing convenience store items from a new model of automated vending machine, "A guy in the store can make a mistake or give you a hard time, but not the machine. I definitely prefer the machine".[31] Many SSTs enable users to get detailed information and complete transactions faster than they could through face-to-face or telephone contact. Experienced travelers rely on SSTs to save time and effort at airports, rental car facilities, and hotels. A Wall Street Journal article summarized the trend — "Have a Pleasant Trip: Eliminate Human Contact".[32] In short, many customers like SSTs when they work well and especially when customers have to use them frequently.

Customers may derive fun, enjoyment, and even spontaneous delight from SST usage. For example, children take a lot of delight in doing self-scanning at supermarket checkouts or making orders on tablets in restaurants as they find this activity enjoyable.

However, there are always some consumers who feel uncomfortable with SSTs, feel anxious and stressed, or may view service encounters as

social experiences, and prefer to deal with people. Even after an initial trial, not all customers will continue using an SST. It is important that the first trial is satisfying, and customers feel confident that they can use the SST effectively in the future. If this is not the case, customers are likely to go back to using traditional, front-line employee-provided services. Some retail banks, for example, use "greeters" in their branches to assist customers in migrating to in-branch SSTs. This not only helps customers to overcome technology anxiety and ensures a successful first trial, but also builds confidence in their ability to use the SST again.[33]

In sum, customers love SSTs when they are easy to use, perform better, and cheaper than the alternative of being served by a service employee. However, not all customers are comfortable with using SSTs.

Customer Disadvantages and Barriers of Adoption of Self-Service Technology

Customers hate SSTs when they fail. Users get angry when they find that self-service machines are out of service, their PIN numbers are rejected, websites are down, or tracking numbers do not work. Even when SSTs do work, customers get frustrated by poorly designed technologies that make service processes difficult to understand and use. A common complaint is the difficulty in navigating one's way around a website or completing online registrations and forms that keep rejecting their entries.

Users also get frustrated when they themselves mess up, due to errors such as forgetting their passwords, failing to provide information as requested, or simply hitting the wrong button. Self-service logically implies that customers can cause their own dissatisfaction. However, even when it is the customers' own fault, they may still blame the service provider for not providing a simpler and more user-friendly system, and on the next occasion, revert to the traditional human-based system.[34]

A key problem with SSTs is that so few of them include effective service recovery systems. In many instances, when the process fails, there is no simple way to solve the problem on the spot. Typically, customers are forced to telephone, email, or make a personal visit to the service company to solve the problem, which may be exactly what they were trying to avoid in the first place!

Thus, the challenge for the service firm is to design SSTs to be as "idiot-proof" as possible, mitigate common customer errors, use customer

poka-yokes, and even design service recovery processes for customers so that they can help themselves should things go wrong.[35]

Assessing and Improving SSTs

Mary Jo Bitner suggests that managers should put their firms' SSTs to the test by asking the following basic questions[36]:

- *Does the SST work reliably?* Firms must make sure that SSTs work as promised and the design is user-friendly. Southwest Airlines' online ticketing system has set a high standard for simplicity and reliability. It boasts the highest percentage of online ticket sales of any airline — a clear evidence of customer acceptance!
- *Is the SST better than the interpersonal alternative?* If it does not save time or provide ease of access, cost savings or some other benefit, then customers will continue to use the familiar interpersonal choice. Amazon.com's success reflects its efforts to create a highly personalized yet efficient alternative to visiting a retail store,[37] which has become the most preferred way of browsing and buying books today. The fast growth of e-books will only accelerate this trend.

Figure 10: As a fail-safe measure, departmental stores normally have employees on standby near self-checkout lanes to assist if there are problems.

- *If the SST fails, are systems in place to recover the service?* It is critical for firms to provide systems, structures, and recovery technologies that will enable prompt service recovery when things go wrong (Figure 10). Most banks display a phone number at their ATMs, giving customers direct access to a 24-hour customer service center where they can talk to a "real person" if they have questions or run into difficulties. Supermarkets that have installed self-service checkout lanes usually assign one employee to monitor the lanes; this practice combines security with customer assistance. In telephone-based service systems, well-designed voicemail menus include an option for customers to reach a customer-service representative.

Designing a website to be easy to use and virtually failure-proof is no easy task and can be very expensive, but it is through such investments that companies can encourage self-service and create loyal users.

Managing Customers' Reluctance to Change

Increasing the customers' participation level in a service process, or shifting the process entirely to self-service using SSTs, require the firm to change customer behavior. This is often a difficult task as customers resent being forced to use SSTs.[38] *Service Insights 6* identifies ways of addressing customer resistance to change, particularly when the innovation is a radical one.

Once the nature of the changes has been decided, marketing communications can help prepare customers for the change, explaining the rationale, the benefits, and what customers will need to do differently in the future.

SERVICE INSIGHTS 6

Managing Customers' Reluctance to Change

Customer resistance to changes in familiar processes and long-established behavior patterns can thwart attempts to improve productivity and even quality. The following six steps can help smoothen the path of change.

(1) *Develop customer trust.* It is more difficult to introduce productivity-related changes when people are distrustful of the initiator, as they often are in the case of large, seemingly impersonal institutions. Customers' willingness to accept change may be closely related to the degree of goodwill they bear towards the firm.

(2) *Understand customers' habits and expectations.* People often get into a routine of using a particular service, with certain steps being taken in a specific sequence. In effect, they have their own individual service script or flowchart in mind. Innovations that disrupt deeply-rooted routines are more likely to face resistance. Aligning new processes more closely with customers' habits and expectations enhances the chances of success.

(3) *Pre-test new procedures and equipment.* To determine probable customer response to new procedures and equipment, marketing researchers can employ concept and laboratory testing, and/or field testing. If service personnel are going to be replaced by automatic equipment, it is essential to create designs that customers of almost all types and backgrounds will find easy to use. Even the phrasing of instructions needs careful thought. Unclear or complex instructions may discourage customers with poor reading skills.

(4) *Publicize the benefits.* Introduction of self-service equipment or procedures requires consumers to perform part of the task themselves. Although this additional "work" may be associated with such benefits as extended service hours, time savings, and (in some instances) monetary savings, these benefits are not necessarily obvious — they have to be promoted. Customers have to be informed about the innovation to arouse their interest, and specific benefits to customers should be clarified of using a new delivery system.

(5) *Teach customers to use innovations and promote trial.* Assigning service personnel to demonstrate new equipment and answer

questions — providing reassurance as well as educational assistance — is a key element in gaining acceptance of new procedures and technology. The costs of such demonstration programs can be spread across multiple outlets by moving staff members from one site to another if the innovation is rolled out sequentially across the various locations. For web-based innovations, firms can consider to provide access to e-mail, chat or even telephone-based assistance. Promotional incentives such as price discounts, loyalty points, or lucky draws may also help to stimulate trial. Once customers have tried a self-service option (particularly an electronically-based one) and find that it works well, they will be more likely to use it regularly in the future.

(6) *Monitor performance and continue to seek improvements.* Introducing quality and productivity improvements is an ongoing process, especially for SSTs. It is important to monitor utilization, frequency of transaction failures (and their fail points), and customer complaints over time. Service managers have to work hard to continuously improve SSTs and keep up the momentum so that SSTs can achieve their full potential and not left to become white elephants.

CONCLUSION

We emphasized the importance of designing and managing service processes central in creating the service product and significantly shaping the customer experience is emphasized. Blueprinting is covered in detail as a powerful tool to understand, document, analyze, and improve service processes as it helps to identify and reduce service fail points, and provides important insights for service process redesign.

An important part of process design is to define the roles customers should play in the production of services. Their level of desired participation needs to be determined, and customers need to be motivated and taught to play their part in the service delivery to ensure customer satisfaction and firm productivity. The increasing importance of SSTs and strategies to increase their adoption were also discussed.

SUMMARY

1. The Underlying Architecture of Services

From the customer's perspective, services are experiences. From the organization's perspective, services are the processes that are designed and managed to create the desired experience for customers. Processes are the underlying architecture of services.

2. Flowcharting and Blueprinting

Flowcharting is a technique for displaying the nature and sequence of the different steps in delivering a service to the customer. It is a simple way to visualize the total customer service experience. Blueprinting is a more complex form of flowcharting, specifying in detail how service processes are constructed, including what is visible to the customer and all that goes on in the back office. Blueprints facilitate the detailed design and redesign of customer service processes.

3. The Design Elements of a Blueprint

- The front-stage activities that map the overall customer experience, the desired inputs and outputs, and the sequence in which the delivery of that output should take place.
- The physical evidence the customer can see and use to assess service quality.
- The line of visibility clearly separates what customers experience and can see front-stage, and the back-stage processes customers cannot see.
- The back-stage activities that must be performed to support a particular front-stage step.
- The support processes and supplies where support processes are typically provided by the information system, and supplies are needed for both front- and back-stage steps.
- Fail points are where there is a risk of things going wrong and affecting service quality. Fail points should be designed out of a process (e.g., via the use of poka-yokes), and firms should have backup plans for failures that are not preventable.

- Common customer waits in the process and points of potential excessive waits. These should then either be designed out of the process, or if that is not possible, firms can implement strategies to make waits less unpleasant.
- Service standards and targets should be established for each activity, reflecting customer expectations. This includes specific times to be set for the completion of each task and the acceptable wait between each customer activity.

4. Developing Fail-Safe Methods

A good blueprint identifies fail points where things can go wrong. Fail-safe methods, also called poka-yokes, can then be designed to prevent and/or recover such failures for both employees and customers. A three-step approach can be used to develop poka-yokes:

- Collect information on the most common fail points.
- Identify the root causes of those failures.
- Create strategies to prevent the failures that have been identified.

5. Service Blueprints

Service blueprints help to set service standards that should be high enough to satisfy customers. As standards need to be measurable, important but subjective or intangible service attributes need to be operationalized. This can often be achieved through service process indicators that capture the essence or at least approximate these attributes. Once standards are decided, performance targets can be set.

6. Design Service Processes with Emotional Intelligence

Service processes need to be designed with emotional intelligence. Below are the key principles about sequencing service:

- *Start strong*. The opening scenes of a service drama are particularly important, because customers' first impressions can affect their evaluations of quality during later stages of service delivery.
- *Build an improving trend*. All things being equal, it is better to start a little lower and build a little higher than to start a little higher and fall off a little at the end.

- *Create a peak*. Customers tend to remember the peak!
- *Get bad experiences over with earlier on* so that negative aspects of the experience are less likely to dominate the memory of the entire service encounter.
- *Segment pleasure but combine pain*. Service processes should extend the feeling of pleasurable experiences by dividing them up throughout the experience, and combining unpleasant experiences into a single event.
- *Finish strong*. Ending on a high note is an important aspect of every service encounter, even if it is just a cheerful and affirmative "Have a nice day".

A tool that helps to manage customer emotions is *emotionprints*, which documents likely customer emotions at each stage of the service process. The objective is to manage the customer experience well.

7. Customer Service Processes

Changes in technology, customer needs, and service offerings require customer service processes to be redesigned periodically. Symptoms indicating that a process is not working well include:

- A lot of information exchange is required; the data available is not useful.
- A high ratio of checking or control activities to value-adding activities.
- Increased processing of exceptions.
- Growing numbers of customer complaints about inconvenient and unnecessary procedures.

8. Objectives of Service Process Redesign Efforts

- Reduce number of service failures
- Reduce cycle time
- Improve productivity
- Increase customer satisfaction

Service process redesign includes reconstruction, rearrangement, or substitution of service processes. These efforts typically include:

- Examining the service blueprint with key stakeholders — customers, frontline employees, support staff and IT teams are invited to review the blueprint and to brainstorm for ideas on how to improve the process.
- Elimination of non-value adding steps.
- Reducing bottlenecks and balancing process capacity.
- Shifting to self-service.

9. Levels of Customer Participation

Understand the levels of customer participation in service processes, which can range from low, to moderate and high.

10. Customers as "Service Co-Creators"

Customers are often involved in service processes as co-producers and can therefore be thought of as "service co-creators". Their performance affects the quality and productivity of output. Therefore, service firms need to educate and train customers so that they have the skills and motivation needed to perform their tasks well.

11. Self-Service Technologies (SSTs)

The ultimate form of customer involvement is self-service. Most people welcome self-service technologies (SSTs) that offer more convenience (i.e., time savings, faster service, 24/7 availability, and more locations), cost savings, and better control, information, and customization. However, poorly designed technology and inadequate education in how to use SSTs can cause customers to reject SSTs.

Three basic questions can be used to assess the potential for success of an SST and to improve it:

- Does the SST work reliably?
- Is the SST better for customers compared to other service delivery alternatives?
- If the SST fails, are there systems in place to recover the service?

12. Changing Customer Behavior

Increasing the customers' participation level in a service process or shifting the process entirely to self-service requires the firm to change customer behavior. There are six steps to guide this process and reduce customer reluctance to change:

- Develop customer trust.
- Understand customers' habits and expectations.
- Pretest new procedures and equipment.
- Publicize the benefits of changes.
- Teach customers to use innovations and promote trial.
- Monitor performance and continue to seek improvements.

ENDNOTES

1 To analyze, improve and design end-to-end customer journey using bottom-up (data driven) and top down judgment driven approaches, see: Alex Rawson, Ewan Duncan, and Conor Jones (2013), "The Truth About Customer Experience: Touchpoints Matter, But It's the Full Journey that Really Counts", *Harvard Business Review*, Vol. 91, No. 9, pp. 90–98.

2 G. Lynn Shostack (1984), "Designing Services That Deliver", *Harvard Business Review*, January–February, pp. 133–139; Jane Kingman-Brundage (1989), "The ABCs of Service System Blueprinting," in M.J. Bitner and L.A. Crosby (eds.), *Designing a Winning Service Strategy*. Chicago: American Marketing Association; Lia Patrício, Raymond P. Fisk, and João Falcãe Cunha (2008), "Designing Multi-Interface Service Experiences: The Service Experience Blueprint," *Journal of Service Research*, Vol. 10, No. 4, pp. 318–334.

For an excellent approach to designing and mapping complex service systems, see: Lia Patrício, Raymond P. Fisk, João Falcão e Cunha, and Larry Constantine (2011), "Multilevel Service Design: From Customer Value Constellation to Service Experience Blueprinting", *Journal of Service Research*, Vol. 14, No. 2, pp. 180–200.

An additional tool that helps to visualize service operations, processes and interactions involving networks of entities is the Process-Chain-Network (PCN) analysis, see: Scott E. Sampson (2012), "Visualizing Service Operations", *Journal of Service Research*, Vol. 15, No. 2, pp. 182–198.

3 Laurette Dube, Bernd H. Schmitt, and France Leclerc (1991), "Consumers' Affective Responses to Delays at Different Phases of a Service Delivery", *Journal of Applied Social Psychology*, Vol. 21 No. 10, pp. 810–820.

4 David Maister, now President of Maister Associates, coined the term "Opportunities to Screw Up" (OTSU) while teaching at Harvard Business School.

5 For descriptions of how poka-yokes can be used to improve business operations see: Sameer Kumar, Brett Hudson and Josie Lowry (2010), "Consumer Purchase Process Improvements in E-tailing Operations," *International Journal of Productivity and Performance Management*, Vol. 59, No. 4, pp. 388–403; Sameer Kumar, Angelena Phillips and Julia Rupp (2009), "Using Six Sigma DMAIC to Design a High-quality Summer Lodge Operation," *Journal of Retail & Leisure Property*, Vol. 8, No. 3, pp. 173–191.

6 This section is based in part on Richard B. Chase and Douglas M. Stewart, "Make Your Service Fail-Safe," *Sloan Management Review*, 35, Spring 1994, pp. 35–44.

7 This section was adapted from Jochen Wirtz and Monica Tomlin, "Institutionalizing Customer-driven Learning through Fully Integrated Customer Feedback Systems," Managing *Service Quality*, Vol. 10, No. 4 (2000): 205–215.

8 Parts of this section were based on: Sriram Dasu and Richard B. Chase (2013), *The Customer Service Solution: Managing Emotions, Trust, and Control to Win Your*

Customer's Business. New York: McGraw-Hill. This book provides an excellent overview of designing service processes with emotional intelligence.

9 Adapted from: Sriram Dasu and Richard B. Chase (2013), *The Customer Service Solution: Managing Emotions, Trust, and Control to Win Your Customer's Business*. New York: McGraw-Hill, pp. 134–135.

We added the item "start strong" based on the following research: Eric J. Arnould and Linda L. Price, "River Magic: Extraordinary Experience and the Extended Service Encounter," *Journal of Consumer Research*, Vol. 20, June 1993, pp. 24–25; Richard B. Chase and Sriram Dasu (2014), "Experience Psychology — A Proposed New Subfield of Service Management", *Journal of Service Management*, Vol. 25, No. 5, pp. 574–577.

10 David E. Hansen and Peter J. Danaher, "Inconsistent Performance during the Service Encounter: What's a Good Start Worth?" *Journal of Service Research*, Vol. 1 (February 1999), pp. 227–235; Richard B. Chase and Sriram Dasu OP. COIT., 2001. Richard B. Chase and Sriram Dasu, "Want to Perfect Your Company's Service? Use Behavioral Science." *Harvard Business Review,* 79, June 2001, pp. 79–84.

A recent study also showed that a service failure at the end of an extended service encounter has a stronger impact on overall satisfaction than a failure earlier in the process; see: Ina Garnefeld and Lena Steinhoff (2013), "Primary versus Recency Effects in Extended Service Encounters", *Journal of Service Management*, Vol. 24, No. 1, pp. 64–81.

11 Sriram Dasu and Richard B. Chase (2010), "Designing the Soft Side of Customer Service," *MIT Sloan Management Review*, Vol. 52, No. 1, pp. 33–39.

12 Mitchell T. Rabkin, MD, cited in Christopher H. Lovelock, *Product Plus*. New York: McGraw-Hill, 1994, pp. 354–355.

13 Source: Christopher Lovelock (1994), *Product Plus*. New York: McGraw-Hill, p. 355.

14 See, for example, Michael Hammer and James Champy, *Reengineering the Corporation: A Manifesto for Business Revolution,* (New York: Harper Business, revised edition, 2006).

For a nice documentation of a service process redesign cum introducing cross-functional teams, see: Agneta Larsson, Mats Johansson, Fredrik Bååthe, and Sanna Neselius (2012), "Reducing Throughput Time in a Service Organization by Introducing Cross-Functional Teams", *Production Planning & Control*, Vol. 23, No. 7, pp. 571–580.

15 www.patientvisitredesign.com, accessed 30 April 2016.

16 This section is partially based on Leonard L. Berry and Sandra K. Lampo, "Teaching an Old Service New Tricks — The Promise of Service Redesign," *Journal of Service Research,* 2, no. 3 (2000): 265–275. Berry and Lampo identified the five service redesign concepts: self-service, direct service, pre-service, bundled service, and physical service. We expanded some of these concepts in this section to embrace more of the productivity enhancing aspects of process redesign.

17 Parts of this section were adapted from: Robert Johnston, Graham Clark, and Michael Shulver (2012), *Service Operations Management: Improving Service Delivery*. 4th ed., Essex, United Kingdom: Pearson Education.

18 Leonard L. Berry and Sandra K. Lampo, "Teaching an Old Service New Tricks — The Promise of Service Redesign," *Journal of Service Research,* 2, No. 3 (February 2000): 265–275.

19 Victoria Ho, "Businesses Swallow the Tablet and Smile," *The Business Times*, 14 March 2011.

20 Atsuko Fukase (2015), "Robots to Greet Customers at Japanese Bank", The Wall Street Journal, 13 January 2015. http://blogs.wsj.com/japanrealtime/2015/01/13/robots-to-greet-customers-at-japanese-bank, accessed on 3 May 2016.

21 Amy Risch Rodie and Susan Schultz Klein, "Customer Participation in Services Production and Delivery," in T. A. Schwartz and D. Iacobucci, eds. *Handbook of Service Marketing and Management*. Thousand Oaks, CA: Sage Publications, 2000, pp. 111–125.

22 Mary Jo Bitner, William T. Faranda, Amy R. Hubbert, and Valarie A. Zeithaml, "Customer Contributions and Roles in Service Delivery," *International Journal of Service Industry Management*, 8, No. 3, 1997, pp. 193–205.

23 There is a large body of literature dealing with customer co-creation of value. Key articles include: Atefeh Yazdanparast, Ila Manuj and Stephen M. Swartz, "Co-creating Logistics Value: A Service-Dominant Logic Perspective," *The International Journal of Logistics Management*, 21, No. 3, 2010: 375–403; Evert Gummesson, Robert F. Lusch and Stephen L. Vargo, "Transitioning from Service Management to Service-Dominant Logic," *International Journal of Quality and Service Sciences*, 2, No. 1, 2010: 8–22; Kristina Heinonen, Tore Strandvik and Karl-Jacob Mickelsson, "A Customer-Dominant Logic of Service," *Journal of Service Management*, 21, No. 4, 2010: 531–548; Robert F. Lusch, Stephen L. Vargo and Matthew O'Brien, "Competing Through Service: Insights from Service Dominant Logic," *Journal of Retailing*, 83, No. 1, 2007: 5–18; Stephen L. Vargo and Robert F. Lusch, "Service-Dominant Logic: Continuing the Evolution," *Journal of the Academy of Marketing Science*, 36, No. 1, 2008: 1–10. Loic Ple and Ruben Chumpitaz Caceres, "Not Always Co-Creation: Introducing Interactional Co-Destruction of Value in Service-Dominant Logic" *Journal of Services Marketing*, 24, No. 6, 2010: 430–437.

Additional important research on customer participation in service processes is published in: Kimmy Wa Chan, Chi Kin (Bennett) Yim, and Simon S.K. Lam (2010), "Is Customer Participation in Value Creation a Double-Edged Sword? Evidence from Professional Financial Services Across Cultures", *Journal of Marketing*, Vol. 74, No. 3, pp. 48–64; Andrew S. Gallan, Cheryl Burke Jarvis, Stephen W. Brown, and Mary Jo Bitner (2013), "Customer Positivity and Participation in Services: An Empirical Test in a Health Care Context", *Journal of the Academy of Marketing Science*, Vol. 41, No. 3, pp. 338–356; Thomas Eichentopf, Michael Kleinaltenkamp, and Janine van Stiphout (2011), "Modelling Customer Process Activities in Interactive

Value Creation", *Journal of Service Management*, Vol. 22, No. 5, pp. 650–663; Beibei Dong, K. Sivakumar, Kenneth R. Evans, and Shaoming Zou (2015), "Effect of Customer Participation on Service Outcomes: The Moderating Role of Participation Readiness", *Journal of Service Research*, Vol. 18, No. 2, pp. 160–176.

24 Stephen S. Tax, Mark Colgate, and David E. Bowen, "How to Prevent Customers from Failing," *MIT Sloan Management Review*, 47, Spring 2006, pp. 30–38.

25 Matthew L. Meuter, Amy L. Ostrom, Robert I. Roundtree, and Mary Jo Bitner, "Self-Service Technologies: Understanding Customer Satisfaction with Technology-Based Service Encounters," *Journal of Marketing*, 64, July 2000, pp. 50–64.

26 Gerard Haübl and Kyle B. Murray, "Preference Construction and Persistence in Digital Marketplaces: The Role of Electronic Recommendation Agents," *Journal of Consumer Psychology*, 13, No. 1, 2003, pp. 75–91; Lerzan Aksoy, Paul N. Bloom, Nicholas H. Lurie, and Bruce Cooil, "Should Recommendation Agents Think Like People?" *Journal of Service Research*, 8, May 2006, pp. 297–315.

27 Sterling A. Bone, Paul W. Fombelle, Kristal R. Ray, and Katherine N. Lemon (2015), "How Customer Participation in B2B Peer-to-Peer Problem-Solving Communities Influences the Need for Traditional Customer Service", *Journal of Service Research*, Vol. 18, No. 1, pp. 23–38.

28 Matthew L. Meuter, Mary Jo Bitner, Amy L. Ostrom, and Stephen W. Brown, "Choosing Among Alternative Service Delivery Modes: An Investigation of Customer Trial of Self-Service Technologies," *Journal of Marketing*, 69, April 2005, pp. 61–83.

29 A large number of studies examined the attitudes and perceptions that drive adoption of SST. Important studies include: James M. Curran, Matthew L. Meuter, and Carol G. Surprenant, "Intentions to Use Self-Service Technologies: A Confluence of Multiple Attitudes," *Journal of Service Research*, 5, February 2003, pp. 209–224; Joel E. Collier and Daniel L. Sherrell (2010), "Examining the Influence of Control and Convenience in a Self-Service Setting", *Journal of the Academy of Marketing Science*, Vol. 38, No. 4, pp. 490–509; Jeffrey S. Smith, Mark R. Gleim, Stacey G. Robinson, William J. Kettinger, and Sung-Hee 'Sunny' Park (2014), "Using an Old Dog for New Tricks: A Regulatory Focus Perspective on Consumer Acceptance of RFID Applications", *Journal of Service Research*, Vol. 17, No. 1, pp. 85–101; Katja Gelbrich and Britta Sattler (2014), "Anxiety, Crowding, and Time Pressure in Public Self-Service Technology Acceptance", *Journal of Service Marketing*, Vol. 28, No. 1, pp. 82–94; Toni Hilton, Tim Hughes, Ed Little and Ebi Marandi (2013), "Adopting Self-Service Technology to Do More with Less", *Journal of Service Marketing*, Vol. 27, No. 1, pp. 3–12; Joel E. Collier and Sheryl E. Kimes, "Only if it is Convenient: Understanding How Convenience Influences Self-Service Technology Evaluation", *Journal of Service Research*, Vol. 16, No. 1, pp. 39–51.

30 Pratibha A. Dabholkar, "Consumer Evaluations of New Technology-Based Self-Service Options: An Investigation of Alternative Models of Service Quality,"

International *Journal of Research in Marketing,* 13, 1996, pp. 29–51; David G. Mick and Susan Fournier, "Paradoxes of Technology: Consumer Cognizance, Emotions, and Coping Strategies," *Journal of Consumer Research,* 25, September 1998, pp. 123–143; Mary Jo. Bitner, Stephen W. Brown, and Matthew L. Meuter, "Technology Infusion in Service Encounters," *Journal of the Academy of Marketing Science,* 28, No. 1, 2000, pp. 138–149; Dabholkar *et al.*, 2003 op. cit. Maria Åkesson, Bo Edvardsson, and Bård Tronvoll (2014), "Customer Experience from a Self-Service System Perspective", *Journal of Service Management*, Vol. 25, No. 5, pp. 677–698; Meuter *et al.*, 2000; Mary Jo Bitner, "Self-Service Technologies: What Do Customers Expect?" *Marketing Management*, Spring 2001, pp. 10–11.

31 Jeffrey F. Rayport and Bernard J. Jaworski, "Best Face Forward," *Harvard Business Review,* 82, December 2004,

32 Kortney Stringer, "Have a Pleasant Trip: Eliminate All Human Contact," *Wall Street Journal*, 31 October 2002.

33 Cheng Wang, Jennifer Harris, and Paul Patterson (2013), "The Roles of Habit, Self-Efficacy, and Satisfaction in Driving Continued Use of Self-Service Technologies: A Longitudinal Study", *Journal of Service Research*, Vol. 16, No. 3, pp. 400–414.

If a SST is perceived as delivering service quality, it has a positive impact on the intention to return to a retail store; see Hyun-Joo Lee, Ann E. Fairhurst and Min-Young Lee, "The Importance of Self-Service Kiosks in Developing Consumers' Retail Patronage Intentions," *Managing Service Quality*, 19, No. 6, 2009: 687–701.

34 Neeli Bendapudi and Robert P. Leone, "Psychological Implications of Customer Participation in Co-Production," *Journal of Marketing,* 67, January 2003, pp. 14–28.

35 Zhen Zhu, Cheryl Nakata, K. Sivakumar, and Dhruv Grewal (2013), "Fix It or Leave It? Customer Recovery from Self-Service Technology Failures", *Journal of Retailing*, Vol. 89, No. 1, pp. 15–29.

36 Bitner, 2001, op. cit.

37 Brad Stone (2013), *The Everything Store: Jeff Bezos and the Age of Amazon*. Little, Brown and Company.

38 Machiel J. Reinders, Pratibha A. Dabholkar, and Ruud T. Frambach, "Consequences of Forcing Consumers to Use Technology-Based Self-Service," *Journal of Service Research*, 11, No. 2, 2008, pp. 107–123.

ABOUT THE AUTHOR

Jochen Wirtz is Professor of Marketing and Vice Dean, Graduate Studies, at the National University of Singapore (NUS), and an international fellow of the Service Research Center at Karlstad University, Sweden. Furthermore, he is the founding director of the dual degree UCLA–NUS Executive MBA Program (ranked globally #6 in the Financial Times 2016 EMBA rankings) and international fellow of the Service Research Center at Karlstad University, Sweden, and Academic Scholar at the Cornell Institute for Healthy Futures (CIHF) at Cornell University, USA. Dr. Wirtz holds a PhD in services marketing from the London Business School and has worked in the field of services for over 25 years.

Professor Wirtz's research focuses on service marketing and has been published in over 200 academic articles, book chapters and industry reports. He is an author or co-author of more than 10 books, including *Services Marketing — People, Technology, Strategy* (8th edition) (World Scientific, 2016), co-authored with Professor Lovelock, which has become one of the world's leading services marketing text book that has been translated and adapted for more than 26 countries and regions, and with sales of some 800,000 copies.

In recognition of his excellence in teaching and research, Professor Wirtz has received more than 40 awards, including the prestigious Academy of Marketing Science (AMS) 2012 Outstanding Marketing Teacher Award (the highest recognition of teaching excellence of AMS globally), and the top university-level Outstanding Educator Award at NUS. He was also the winner of the inaugural Outstanding Service Researcher Award 2010, and the Best Practical Implications Award 2009, both by Emerald Group Publications.

Professor Wirtz was a banker and took the banking exam at Chamber of Commerce and Industry in Munich. He has since been an active management consultant, working with international consulting firms including Accenture, Arthur D. Little and KPMG, and major service firms in the areas of strategy, business development and customer feedback systems. He has also been involved in several start-ups including in Accellion (www.accellion.com), Angeloop (https://angeloop.co), TranscribeMe (www.transcribeme.com), and Up! Your Service (www.upyourservice.com).

Originally from Germany, Professor Wirtz spent seven years in London before moving to Asia. Today, he shuttles between Asia, the US and Europe. For further information, see www.JochenWirtz.com.

ACKNOWLEDGMENTS

First, I would like to thank my mentor, friend and co-author Professor Christopher Lovelock. Since first meeting in 1992, he has become a dear friend who has had significant influence on my thinking and development. We have worked together on a variety of projects, including cases, articles, conference papers, and several books. Winning in Service Markets is, in fact, derived from our best-selling textbook, Services Marketing: People, Technology, Strategy, 8th edition. I am eternally grateful to Christopher for his friendship and support.

Although it's impossible to mention everyone who has contributed in some way to this book through their research, their contributions and discussions at the many academic conferences where we have met, as collaborators on various research projects, and as friends who have always been ready to discuss, criticize, and provide feedback and suggestions. I particularly want to express my appreciation to the following: Tor Andreassen, Norwegian School of Management; John Bateson of Cass Business School; Leonard Berry of Texas A&M University; David Bowen of Thunderbird Graduate School of Management; Richard Chase of the University of Southern California; Jayanta Chatterjee of Indian Institute of Technology at Kanpur, India; James Heskett, Earl Sasser and Leonard Schlesinger, all of Harvard Business School; Bo Edvardsson of University of Karlstad; Pierre Eiglier of Université d'Aix-Marseille III; Michael Ehret of Nottingham Trent University; Raymond Fisk of the Texas State University; Christian Grönroos of the Swedish School of Economics in Finland; Miguel Angelo Hemzo, Universidade de São Paulo, Brazil; Irene Ng of University of Warwick; Jay Kandampully of Ohio State University; Ron Kaufman of UP! Your Service; Sheryl Kimes of Cornell University; Tim Keiningham of Rockbridge Associate; Jos Lemmink of Maastricht University; Xiongwen Lu of Fudan University, China; Paul Maglio of University of California, Merced, USA; Anna Mattila of Pennsylvania State University; Ulrich Orth of Kiel University; Chiara Orsingher of University of Bologna; A. "Parsu" Parasuraman of University of Miami; Paul Patterson of the University of New South Wales, Australia; Anat Rafaeli of Technion-Israeli Institute of Technology, Roland Rust of the University of Maryland; Benjamin Schneider formerly of the University of Maryland; Jim Spohrer of IBM; Javier Reynoso of Tec de Monterrey, Mexico; Christopher Tang of UCLA; Rodoula Tsiotsou of University of Macedonia; and Valarie Zeithaml of the University of North Carolina.

Finally, I'd like to thank you, the reader of this book, for your interest in this exciting and fast-evolving field of services management and marketing. If you have any feedback, please contact me via www. JochenWirtz.com. I'd love to hear from you!

Services Marketing is available for various audiences:

Essentials of Services Marketing
Published by Pearson Education

Suitable for:
- Polytechnic Students
- Undergraduate Students

Available in the following formats:
- Paperback
- E-book

Services Marketing: People, Technology, Strategy

Suitable for:
- Advanced Undergraduate Students
- Master's-Level/MBA Students

Available in the following formats:
- Hardcover
- Paperback
- E-book
- Bundle of Paperback & E-book
- Rental 6 months

Winning in Service Markets: Success Through People, Technology Strategy

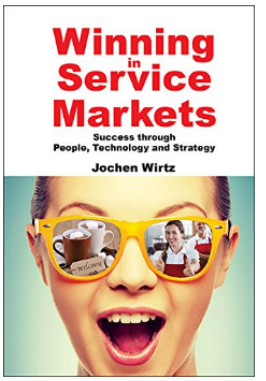
Suitable for:
- Executive Program/EMBA Participants
- Practitioners/Senior Management

Available in the following formats:
- Hardcover
- Paperback
- E-book
- Bundle of Paperback & E-book

Services Marketing Series
- The content in terms of core theory, models and frameworks is largely the same across these publications. However, they are presented and designed to fit their particular target audiences.
- Services Marketing is available in some 26 languages and adaptations for key markets around the world.

Winning in Service Markets Series
Key chapters of Winning in Service Markets are available as stand-alone publications in e-book and paperback:
- Vol. 1: Understanding Service Consumers
- Vol. 2: Positioning Services in Competitive Markets
- Vol. 3: Developing Service Products & Brands
- Vol. 4: Pricing Services & Revenue Management
- Vol. 5: Service Marketing Communications
- Vol. 6: Designing Customer Service Processes
- Vol. 7: Balancing Demand & Capacity in Service Operations
- Vol. 8: Crafting the Service Environment
- Vol. 9: Managing People for Service Advantage
- Vol. 10: Managing Customer Relationships & Building Loyalty
- Vol. 11: Designing Complaint Handling & Service Recovery Strategies
- Vol. 12: Service Quality & Productivity Management
- Vol. 13: Building a World Class Service Organization (Assessment Tool)

Click book covers for links to Amazon:



Contact
- For orders of individual copies, course adoptions, bulk purchases: sales@wspc.com
- For orders for individual chapters, customized course packs: sales@wspc.com
- For adaptions or translation rights, permissions to reprint: rights@wspc.com
- For further information see: www.JochenWirtz.com
- For questions regarding contents: Jochen Wirtz, jochen@nus.edu.sg.

Professor Jochen Wirtz

Click below to follow his research & publications

Videos accompanying this publication are available. Subscribe to: