

Design of the service

Introduction

Services require an operating and delivery system in order to function. That system should be designed in such a way as to offer effective customer service and an efficiently operated process. As you will read, that in itself represents a difficult balancing act. The drive to achieve both efficiency and service quality can become unstuck to the detriment of provider and/or customer. As services comprise a range of elements, the achievement of a smooth running system and the delivery of customer satisfaction remains a challenge. Design formats can, of course, vary with the type of service, and even within a typical service there may be different approaches to what constitutes the best design. Whatever is decided, the design is the service.

3.1 The concept of design

The traditional understanding of the word 'design' is of 'a plan or drawing produced to show the look and function or workings of a building, garment or other object before it is built or made' (*The New Oxford Dictionary of English*, Oxford University Press, 1998). We usually associate design, of course, with manufactured products, e.g. a car, washing machine, DVD etc. It usually starts with a concept or idea followed by a design specification that will spell out how it works, how it looks and what it symbolizes. In support of this, decisions have to be made in respect of colour, styling, durability, reliability, materials, cost of manufacture and so on.

Design of a service, on the other hand, offers up a somewhat different challenge. Importantly, and in keeping with product design, there will still be tangible entities that need to be addressed, e.g. colour, furnishings, equipment, lighting etc. (see Chapter 4). However service, as you will have noted, is a process where people interact with the

production and delivery of an experience. Service design, therefore, should encapsulate all aspects of that experience:

- The role of the customer
- The balance between front and back office
- The impact of technology, e.g. the involvement of equipment
- The location of service consumption (e.g. a fixed single facility, multi-site, mobile)
- Employee skills/behaviour and degree of discretion
- The nature of the service process, e.g. standardized, customized
- The significance of procedures
- The nature and channels of communication
- The contribution of the physical evidence (see Chapter 4) to service satisfaction
- How design advances operational efficiency and service quality.

The above points suggest that three important functions should work together and be actively involved in the design of a service: marketing, human resource management (HRM) and operations management. One area where the three should come together is that of the employee uniform. Sometimes overlooked, it is nevertheless a significant aspect of service. Agreement over its design may nevertheless be difficult to achieve. Consider the concerns of each function and in doing so, whether they may be in conflict.

- **Marketing:** Does the uniform create the right impression or image? Will it elicit a positive, or negative response from customers?
- **HRM:** Will the uniform make the employee feel confident, credible and professional? Will it degrade or humiliate the employee?
- **Operations:** Does the uniform feel comfortable? Is it easily cleaned? Will it interfere with performance? Does it help customers identify employees easily?

Similar exercises can be carried out for the many 'moments of truth' customers experience in the course of a service delivery.

A valuable technique that will facilitate the design of a service is called blueprinting or service mapping (see later in this chapter). From this you can identify moments of truth together with a sense of how the service operates. By bringing together all the facets of a service it should focus your mind on how a service works and why. Not everything can be spelt out in a blueprint, e.g. organization climate, employee attitudes, but it should serve as a building block for addressing these and other matters of relevance in the delivery of service quality.

3.2 Service classification: a design issue

In addition to the conceptual and analytical skills of the designer, several issues and concerns have been raised in the marketing/operations literature that are significant for the development of a service operations and delivery system. You will recall from Chapter 1 the thoughts of Levitt,^{1,2} writing in the 1970s, calling for the industrialization of service in the form of a production-line approach. That, in itself, was

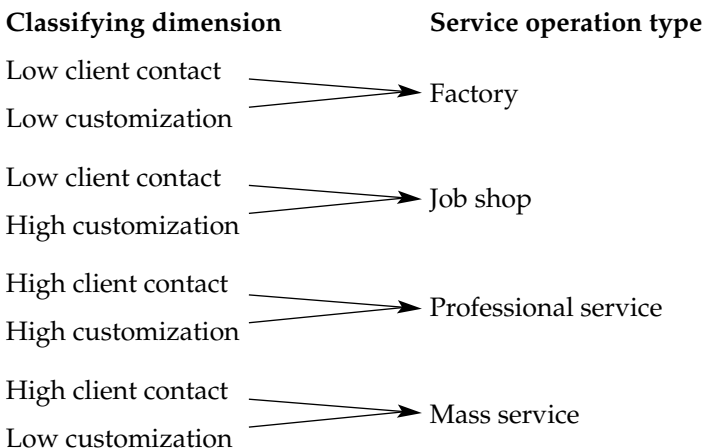
an early indication of how services might be designed with the attendant implications for consumer involvement and operational efficiency. Since then several authors have sought to establish critical dimensions for the design and classification of services.

Thomas, in 1978,³ proposed a classification of services as either 'equipment-based' or 'people-based'. Equipment-based services were further classified as being automated (vending machine, car wash), monitored by relatively unskilled operators (taxis, dry cleaning), or operated by skilled operators (airlines, computer time-sharing). People-based services rely on unskilled labour (janitorial services, guards), skilled labour (car repair, plumbing) or professionals (lawyers, accountants) for service production. Importantly, he regards the classification as a spectrum where services may move from people-based to equipment-based and vice versa. According to Thomas, placing a service on the spectrum necessitates answering two questions:

- 1 How is the service rendered?
- 2 What type of equipment or people render the service?

Thomas further acknowledged that 'many companies are in more than one type of business'. This portrayal of the mixture of 'high-tech' and 'high-touch' has been echoed more recently.⁴ Although this classification is from an operations standpoint, it can serve to remind us of an ongoing tension between mechanization of a service and a desire for human contact on the part of the customer.

Maister and Lovelock, in 1982,⁵ gave prominence to the customer in a 2×2 matrix for service classification:



Unfortunately, the extent of customer contact and customization are not explained and they do not provide examples of services for each of the matrix quadrants. However, they do identify, as mentioned above, client contact as a classifying dimension but fail to address the ambiguity surrounding it. The issue of customer contact will be discussed later in the chapter.

		Degree of interaction and customization	
		Low	High
Degree of labour intensity	Low	Service factory: <ul style="list-style-type: none"> • Airlines • Trucking • Hotels • Resorts and recreation 	Service shop: <ul style="list-style-type: none"> • Hospitals • Auto repair • Other repair services
	High	Mass service: <ul style="list-style-type: none"> • Retailing • Wholesaling • Schools • Retail aspects of commercial banking 	Professional service: <ul style="list-style-type: none"> • Doctors • Lawyers • Accountants • Architects

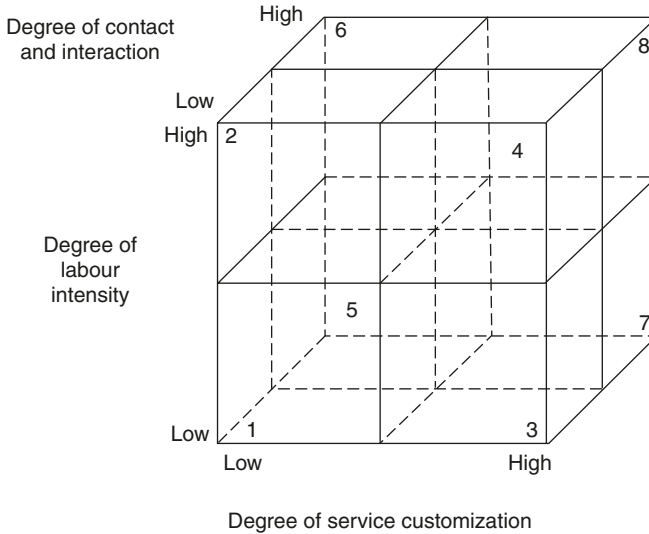
Figure 3.1 The service process matrix

Source: Schmenner (1986)⁶, reproduced by permission from Tribune Media Services

Schmenner, in 1986,⁶ suggested two elements (Figure 3.1) that can be used to classify different kinds of service businesses:

- **Degree of labour intensity**, which is defined as the ratio of the labour cost incurred to the value of the plant and equipment. As it is a ratio, Schmenner observes that even a hospital employing large numbers of doctors, nurses, technicians remains comparatively low in labour intensity because of the very expensive plant and equipment it deploys.
- **Degree of interaction and customization**, which is acknowledged by Schmenner as a more confusing element as it combines two similar but distinct concepts. A high level of interaction is present where a customer can actively intervene in the service process. High customization is in evidence when a service is designed to respond to individual needs and preferences. Although customization and interaction go hand in hand for many services, Schmenner does concede instances where one may be high and the other low. The value of this classification lies in the challenges specified for service management in each quadrant. For example, where the degree of interaction and customization is low standard operating procedures can be adopted whilst at the same time seeking to make the service warm and inviting through design of the service facility.

Haywood-Farmer, in 1988,⁷ pointed to the diversity of the service sector, prompting the need for classification to make the management job possible. Using dimensions from earlier authors, he sought to remove any existing confusion (over previous classifications) by advocating a three-dimensional model (Figure 3.2). The degree of contact asks whether the customer has to be present, as is the case with a haircut; degree of labour-intensity raises the issue of whether it is possible to automate the service, as with automatic teller machines; and the degree of service customization examines how much standardization is possible, e.g. can a standard programme be devised for all customers of a health club? Haywood-Farmer illustrates the significance of his classification for service management. For example, where a service is low in all three dimensions (cell 1) it is in reality like a factory, with emphasis on quality control and focusing on physical facilities and procedures. The back office of



Some examples of services in each octant:

- 1 Utilities, transportation of goods
- 2 Lecture teaching, postal services
- 3 Stockbroking, courier services
- 4 Repair services, wholesaling, retailing
- 5 Computerized teaching, public transit
- 6 Fast food, live entertainment
- 7 Charter services, hospitals
- 8 Design services, advisory services, healing services

Figure 3.2 A three-dimensional classification scheme

Source: Haywood-Farmer (1988), reproduced by permission from Emerald Group Publishing Ltd

a bank is an example. As one moves towards cells 5–8, two factors become prominent. Where the service is low in labour intensity, the customer's impression of the physical facilities, processes and procedures is important. Additionally, care must be taken to make sure equipment is reliable, easy to use and user proof. Secondly, as high contact and interaction services increase in labour intensity, more attention must be paid to making sure staff behave appropriately.

As customization increases (moving towards cells 3, 4, 7 and 8) the service process and product must be designed to fit the customer. In services high on all three dimensions, physical facilities, procedures, processes, personal behaviour and professional judgement all become important.

Wemmerlöv, in 1989,⁸ identified three variables that can aid the design of service systems: type of customer contact (discussed later in chapter), degree of routinization and objects of the service process.

The degree of routinization is characterized as having the following attributes:

- Low level of task variety and technical skills
- Low level of information exchange between the service system and customer
- Both service employee and customer make few judgemental decisions
- The volume of goods, people, or information per unit of time is usually high

- The arrival rate of customers or jobs is often fairly predictable or controlled by the service system
- The process can involve several customers or objects simultaneously
- The response time to a customer-initiated service request is often short.

On the other hand, a fluid service process is characterized by:

- Higher levels of technical skills
- Larger amounts of information to be exchanged between the service system and customer
- The service employee going through unprogrammed search processes and making several judgemental decisions
- A usually low unit of time for handling the volume of goods, people or information
- High uncertainty of the workflow
- One customer (or object) at a time
- A fairly long response time to a customer-initiated service.

3.3 Objects of the service processes

Design issues will be affected by what is being processed. Where people are to be processed the question of whether or not they need to be physically present for the service to be rendered will require to be answered. If physical presence is necessary, the design of the service facility, the skills of the employees and the management of the customers need to be addressed. Where customer possessions is the object of service processing, employee technical skills, quality of equipment and capacity planning are of particular significance. The final category is that of information processing. For particular services, e.g. banks, building societies, insurance companies, much if not all of the service activity can occur in a back office, factory-type setting where efficiency is the crucial operating feature.

Wemmerlöv⁹ argued that his classification scheme can, amongst other things, 'help management to better understand design and operational aspects of service systems by relating classified service processes to critical management tasks'. Amongst his 'uses of the taxonomy', he noted that 'the combination "no customer contact", "rigid processes" and "goods" creates a category that normally is thought of as manufacturing. In the same view, the combination of "direct customer contact", "interaction with service workers", "fluid processes" and "people" or "information" might be considered pure service.'

3.4 Customer contact

A central and recurring theme in the classification and design of service systems is the extent and nature of customer contact. As you are already aware from Chapter 1, Levitt^{10,11} had encouraged service managers to think of their operations as manufacturing processes. In an article entitled 'Where does the customer fit in a service operation' Chase¹² took up the mantle of Levitt, urging companies to reduce their contact with the customer in the name of increased control. Customers were regarded as

interfering with the smooth running of service operations (see Danet, B, reference 10 in Chapter 1). To address the issue of customer contact and service operational efficiency, Chase proposed that service systems should be viewed as falling along a continuum from high customer contact to low customer contact. Specifically, he asserted that ‘the potential efficiency of a service system is a function of the degree of customer contact entailed in the creation of the service product’. In effect, the more physical contact the service had with the customer, the less efficient it would be, and vice versa. He proposed a formula¹³ which stated that:

$$\text{Potential Operating Efficiency} = f\left(1 - \frac{\text{customer contact time}}{\text{service creation time}}\right)$$

where, **customer contact time** refers to the physical presence of the customer in the system and **service creation time** refers to the work process entailed in providing the service.

Extent of contact is the percentage of time the customer must be in the system relative to the total time it takes to serve him/her.

If we apply the formula hypothetically in two contrasting situations, hotels (high customer contact) and the bank branch office (low customer contact), the efficiency measure might be:

$$\text{For hotels: } 1 - \frac{2 \text{ hours}}{4 \text{ hours}} = 50\% \text{ efficiency}$$

$$\text{For bank branch: } 1 - \frac{0.25 \text{ hours}}{2 \text{ hours}} = 87.5\% \text{ efficiency}$$

The ratio of customer contact time related to service creation time is obviously much greater in the case of hotels but does that mean that they are that much less efficient? Furthermore, if the hotel was to take an ‘inefficient 8 hours’ to create the service, the resulting efficiency index would be 75%! Clearly, the nature, as well as the amount of customer contact merits attention. Customer input to the hotel facility would be defined as rather passive, whereas a relatively low contact organization like a bank branch office may experience a degree of uncertainty in terms of customer requests.

Chase subsequently reviewed his original position of shifting service activities to a remote back office in order to maximize efficiency.

This, after all, seemed to work well for manufacturers because it kept outside influences, that is, customers, from disturbing the production process. If a technician is assembling a widget, you don’t want the customer asking him what he’s doing. Or if a clerk is processing forms, talking to the customer on the phone takes her [*sic*] away from her job. In retrospect, this closed system philosophy overlooked the fact that there are positive benefits to both the customer and the organization by having the customer closely linked to the server, even though the job is traditionally performed in the customer’s absence. From

an information exchange perspective, the greater the links between consumer and producer, the easier it is to understand and respond to the customer's needs.¹⁴

In addition, Chase¹⁵ expanded the notion of contact from the original of 'physical presence in the system' to a range of 'contact technologies' (mail, telephone, face-to-face). Contact remained unclear with further reformulation of the original model defining distance contact as direct, indirect and none. Unfortunately this approach simply reaffirms the method of contact over the nature of the contact.

Chase's model, however, remains of value even today. The physical contact he professed to be so concerned about is still for many services a matter of significant importance. For certain services the physical presence of the customer is necessary, for example hairdressing, a train journey, a health spa, etc. For others physical presence is not a prerequisite, for example electronic banking. Physical presence will also vary within a service as well as across services, for example a visit to your local bank branch to finalize a loan application. The remainder of the processing of that loan application occurs independently of your physical presence. With the development of call (or contact) centres and information technology, services are looking to minimize physical contact with customers in line with organization goals for efficiency. But the pursuit of greater and greater efficiency may come with a cost in the form of poorer service quality. Increases in customer complaints, system failures, being cut off etc. – are these evidence of an efficient system?

Where the method of contact appears important is in determining the division of a service between front and back office:

The front office is that part of the system directly experienced and visible to the customer. This is where the service is performed and is thereby open to customer scrutiny, e.g. the hotel dining room.

The back office is that part of the system from which the customer is (physically) excluded, e.g. the hotel kitchens. It is often referred to as the manufacturing side of the service, not seen by the customer. This means that the technical core of an organization (commonly referred to as the production process) is sealed off from any uncertainties that may occur in other parts of the organization. The back office becomes decoupled,¹⁶ separated from the front office and is allowed to work without hindrance or interference. The main objective is to enable efficiency to be maximized in the 'production processes'.

A framework has been suggested as to how the front and back office should be organized and coordinated.¹⁷ The following concepts were viewed as significant for determining the design options and conduct of service work between the customer, front and back office.

- **Input uncertainty** – refers to the service organization's incomplete knowledge of what the customer is going to bring to the service and how he or she is likely to behave. Input uncertainty will vary with the two environmental variables: customer willingness to participate and diversity of demand.
- **Customer willingness to participate** – refers to how far customers wish to play an active part in the service. Customers' capacity to become involved can be limited by lack of knowledge, skills and understanding of their role.
- **Diversity of demands** – refers to the uniqueness of customer demands. Are they to be met in a customized or standardized way?

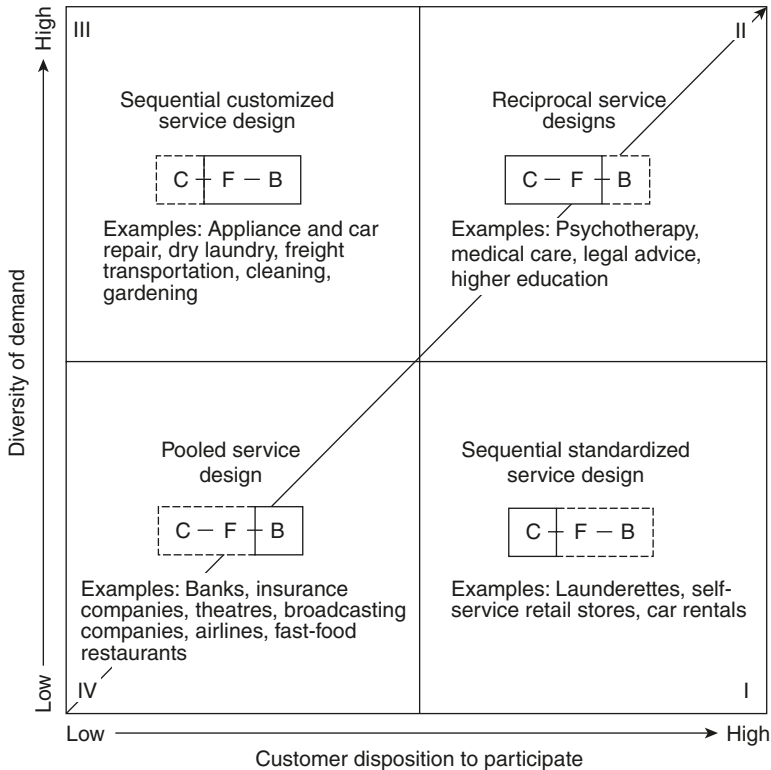


Figure 3.3 A typology of service interdependence patterns matching input uncertainty. C = customers, F = front-office employee(s); B = back-office employee(s). \square = main locus of interdependence, \square = supporting interdependencies
 Source: Larsson and Bowen (1989)¹⁷

- **Interdependencies** – refers to different patterns with respect to division of service work (between front and back office and customer) and customization versus standardization of standard actions and interdependencies.

The four service design options can be seen in Figure 3.3. A brief explanation of each follows.

- **Sequential standardized service design:** a customer-dominated design in which they serve themselves after service employees have provided the goods and facilities needed for self-service. It is a standardized service in which the front and back office can be decoupled to allow for efficient delivery of service.
- **Reciprocal service design:** joint participation of the parties ‘in which the output of each becomes the input for the others’.¹⁸ The service is produced largely on the basis of significant interactions between front-office employees and customers.
- **Sequential customized service design:** the bulk of the work here is performed by the service employees in a system of strong interdependence between back and front offices.

- **Pooled service design:** most of the work done by an efficient back office, largely decoupled from front-office disturbances. Customers do not interact extensively with service employees but engage in the sharing of resources that makes mass service possible.

Striking the right balance between front and back-office activities and responsibilities can be a difficult exercise. As Wostenholme¹⁹ observed, 'There is a "back office" mentality currently permeating service operations thinking. The front office is seen as a complex interactive process where the customer is variable and unpredictable. The back office, on the other hand, is controllable and affords labour cost savings by restricting the number of customer contact personnel. Further, the degree and type of customer contact is progressively moving towards the "hard" forms of contact as witnessed by the introduction of ATMs and ticketing machines.' The precarious future for the front office (as a physical entity accessible by the customer) is reflected in his²⁰ comment that, 'There is undoubtedly a clearly definable trend towards the distancing of the service organization from the source of its wealth – the customer.' What all this means is that in the drive for operational efficiency and control (back office supremacy), service organizations run the risk of neglecting customer expectations of what constitutes a satisfactory experience (front-office impoverishment).

The thinking behind Figure 3.3 represented a significant advance for service design. It recognized the interdependence of three parties to a service exchange, the customer, the front-office employees and the back office. Depending on the extent of customer uncertainties the degree of service standardization/customization, division of work and relationship between the three parties can be established. Of particular interest in this model is the specification of a front-office facility wherein (physical) contact is made with the customer. This is reminiscent of the original position held by Chase. Additionally, physical contact occurs where the service provider must perform the service at the customer's location (cleaning and gardening in quadrant III).

Three questions arise out of the discussion so far:

- 1 How much contact with the customer is necessary? (This could be measured in time as a percentage of the total service creation time, the original Chase model, and evaluated in terms of activity-based costing of resources deployed in customer contact).
- 2 What should be the nature of that contact (standardized/customized, passive/active)?
- 3 Does the customer need to be physically present to receive the service?

In an ongoing process of addressing these questions, services will be subject to classification and reclassification. Some, by their very nature, will remain dominated by a front-office operation, e.g. hairdressing, dentistry. Others will forge ahead in terms of back-office concentration, e.g. telecommunications, utilities. The rest will be characterized by an unending tension between back and front office. The health service is an example of this category. Formerly patients were treated mainly in hospitals. Now only the most major surgery or specialist operations will occur in hospital. With the advent of new technology in the delivery of medical care patients will be diagnosed and monitored from afar by using telemedicine facilities, e.g. NHS24 and

the Internet. For many situations the front office and direct physical contact with highly skilled medical staff will disappear to be replaced with self-management and lower qualified medical assistance. A further impact on the definition and deployment of front and back office has been the rise of the call centre. The front office is now only accessible from a distance and often through fully automated phone systems where there is no option to speak to a human being. It is as if the front office is displaying back-office characteristics, namely efficiency, rationality, manufacturing oriented systems. In place of the traditional role of exclusive engagement with customers, front-line service work now 'acts as a buffer between the relatively rationalized sphere of back office service production and the relatively, unrationalized sphere of consumption'.²¹

3.5 Service blueprint

A service blueprint is basically a flowchart of the service process. It is a map in which all the elements or activities, their sequencing and interaction, can be visualized. There are a number of essential steps in blueprinting a service.²²

- 1 Draw, in diagrammatic form, all the components and processes (Figure 3.4). The service in this case is simple and clear-cut and the map is straightforward. More complex services may require large, complicated diagrams.
- 2 Identify the fail points – where things might go wrong. In Figure 3.4 the shoeshiner may pick up the wrong wax.
- 3 Set executional standards – these are tolerances (band or range) set around each function and regarded as acceptable from a customer and cost viewpoint. Time is a good example. In Figure 3.4 the standard execution time is 2 minutes, and

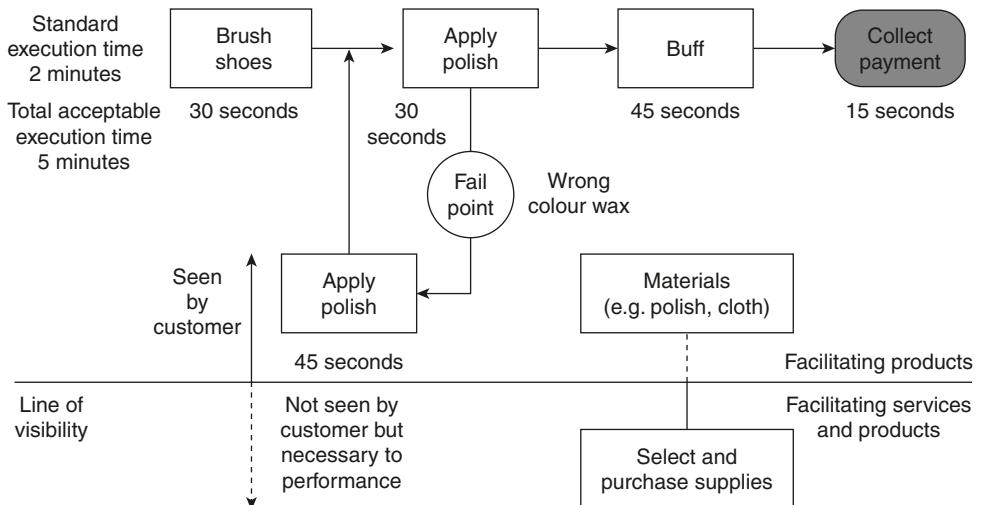


Figure 3.4 Blueprint for a corner shoeshine

Source: Shostack (1984)²². Reproduced by permission of *Harvard Business Review*, © 1984 by the President and Fellows of Harvard Colleges. All rights reserved

research showed that the customer would tolerate up to 5 minutes before lowering his or her assessment of quality.

- 4 Identify all the evidence (see Chapter 4) that is available to the customer. Each item represents an encounter point.
- 5 Analyse profitability – delays in service execution through errors or working too slowly affects profit. The shoeshiner estimates the cost of delay; anything greater than 4 minutes execution time and he loses money.

Consider the application and value of blueprinting for a car repair service. The perspective is that of a customer using it for the first time (Figure 3.5).²³ Prior to making the initial contact with the garage (phoning for appointment and arrival at the garage), the customer will have formed some expectations from, for example, word of mouth and advertising. The telephone call and particularly arrival at the garage will go some way towards confirming or contradicting the customer's expectations, and are in fact more powerful tools once he has made contact. The customer will use various pieces of evidence (telephone response time and manner, attitudes and appearance of proprietor/employees, equipment and layout etc.) as clues to the likely quality of service. Making assumptions about service quality from the type of evidence mentioned above is understandable but has the potential to mislead. The seemingly chaotic, untidy garage manned by employees covered in oil and possessing little by way of modern equipment may be perceived as likely to render a poor service. Yet the opposite may be nearer the truth.

The diagnosis represents an encounter point where the customer may, for example, describe symptoms to assist in determining the problem. It is critical in the sense that promises made to the customer and the resource implications of the job are determined on the basis of the diagnosis. If the diagnosis is subsequently found to be incorrect, relationships with the customer may be impaired. After the initial diagnosis the customer will depart, without ever seeing the repair section.

Where the organization draws the line of visibility, distinguishing the front office from the back office, is of some significance for service organizations. The nature of the service and how it is delivered offers guidance on where to draw the line, e.g. a hairdresser's operation will be predominantly front office, while a credit card company operates a very large percentage of its service in the back office. Other services, like a restaurant, may feel ambivalent about where to draw the line separating the front and back office.

In making the distinction a service organization needs to address the following questions:

- How much of the service does the customer need to witness/experience?
- Will greater involvement lead to more understanding and favourable impressions, i.e. improved effectiveness?
- What effect will there be on efficiency if the customer is allowed greater access to the service process?

As already mentioned earlier in the chapter, a delicate balance may have to be struck between the need for efficiency and the desirability of customer involvement. In the case of the car repair business, allowing the customer to experience the service may

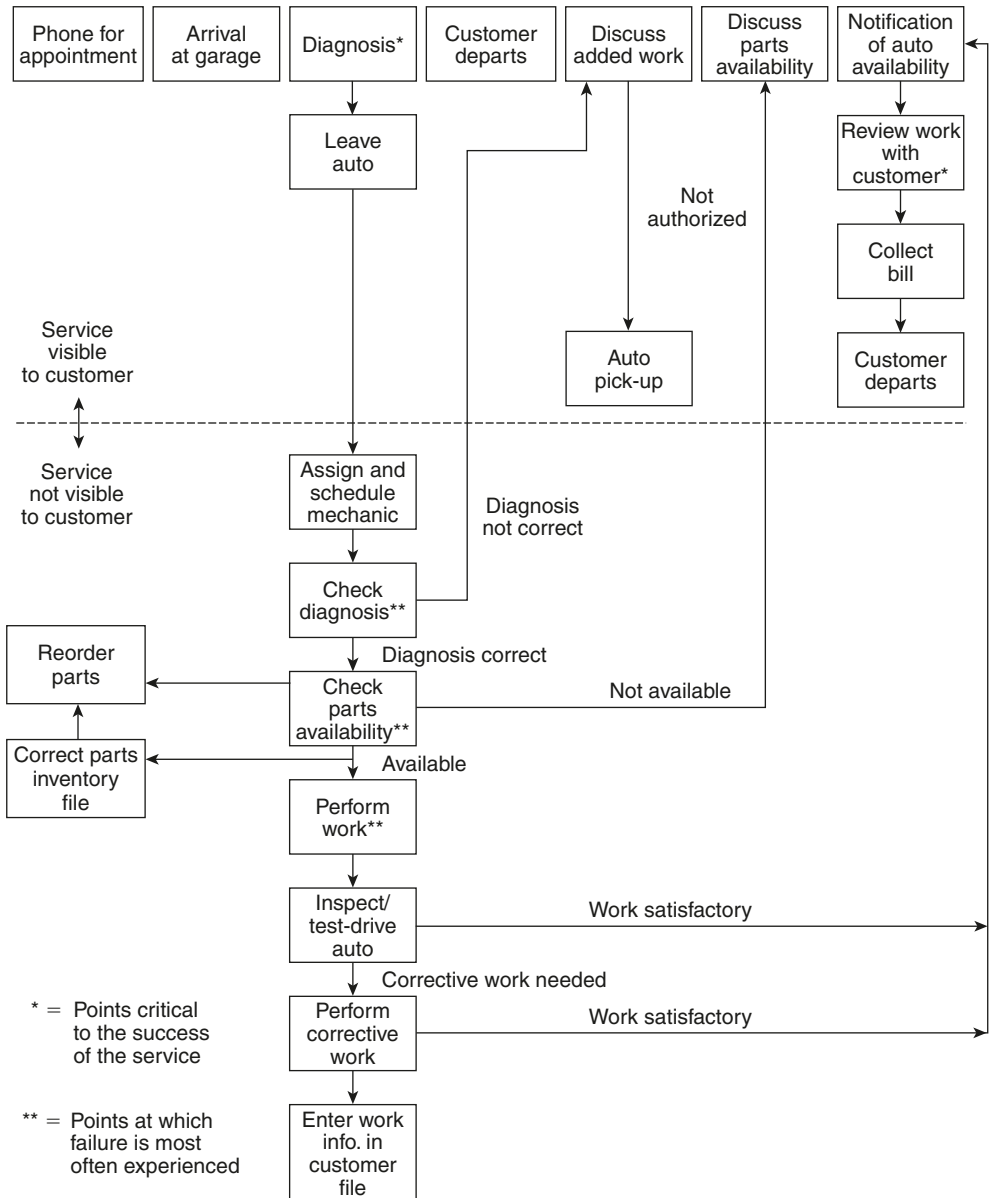


Figure 3.5 A process flow diagram for the auto repair business

Source: Heskett *et al.* (1990)²³

create minimum disruption in terms of efficiency but maximum reward in terms of customer education and understanding.

The repair process in Figure 3.5 is sealed off from the customer but the objective must be to schedule work, deploy the necessary skills and arrange the timely availability of parts in order that promises made to the customer can be achieved.

On paper this is a good example of the construction of a service blueprint. Undertaking such an exercise provides an opportunity for the service provider to

take a fresh look at the service and how it works. Stephen H. Baum, Vice-President of Booz, Allen and Hamilton Inc, New York, believes three factors are critical to making a pay-off:²⁴

- (a) The value delivered: what customers perceive they have actually received.
- (b) The service mix: the features and levels of service the customers really care about.
- (c) Plans and budgets: signals they send employees that are consistent or inconsistent with what management is trying to do.

He cites the example of a fast-food business intent on cost savings in the kitchen which was convinced that automation would result in cost reduction. 'But they were wrong,' Baum said. The issue, according to Baum, was not automation, but labour and time management. His analysis led him to the conclusion that 'Employees spend a lot of time waiting, walking, and doing other things that customers did not perceive as adding value. Much of the problem was caused by equipment choices, process sequences, and layout – not by employee performance.' Baum was able to show, through blueprinting, that automation would actually increase idle time and that by focusing on value-added time major reductions of in-store labour could be effected.

Blueprinting, then, can be regarded as a valuable and versatile tool in systems design. Its deployment can range from the simple design of a hotel bathroom through to monitoring the process flow of an important and confidential company document.²⁵ In developing a service blueprint it is worthwhile considering 'Who does what, to/with whom, how often, and under what conditions'.²⁶ Whatever the process under scrutiny, the aim must always be improvements in service operation that will both deliver customer satisfaction and utilize organizations' resources efficiently. Improving the capacity, ability and willingness to serve must always be the expressed goal of any service organization. It will not be an easy task as the process moves away from the standardized design of a fast-food restaurant where time is the major design element. Clearly, performance standards, in terms of response time, are easier to set than, for example, degree of care and attention required by employees in other service situations. Of equal importance is the establishment of critical or pressure points and fail points. In many cases these are the 'moments of truth' for the customer and any vulnerability to breakdown must of necessity be minimized.

From an organizational culture perspective the blueprint allows all the employees to see their role in the process. Such an approach may bring to the surface previously unspoken tensions, but at the same time it can give, particularly to the front-line employees, a voice in how the service should be delivered. Far too often the customer contact employees are simply left to 'carry out orders'. It may well be, as a result of a blueprinting exercise, that the way these orders are carried out requires drastic overhauling. Management can be criticized, sometimes, for thinking they know best. Mapping out the process is as much a test of the validity and endorsement of management's belief as to how things do or should work.

A process cannot be improved until there is a clear understanding of how it works. There may well be different viewpoints as to how a process should be performed and monitored. It is advisable, therefore, that the views of management, employees and even customers should be solicited. Several types of information must be gathered and in so doing a distinction drawn between peoples' perceptions of the existing processes and their suggestions for improvement.

The areas for investigation should be:

- Process activities
- Information required to perform the process
- Products generated by the process, e.g. documents, services, etc.
- People and equipment required to perform the process
- Documents that direct how the process is to be accomplished.

3.6 The 3 logics

To fully appreciate the workings of any service system reference must be made to what is known as ‘the 3 logics’. Logic is defined here as ‘a way of reasoning’ or a ‘perspective’. Underlining the significance of the 3 logics, Kingmann-Brundage²⁷ stresses that they are ‘crucial to accurate diagnosis of any service situation’. The attractiveness of this approach lies in its quest for a seamless (without failure/breakdown) and unified (cross-functional cooperation) service system. Through the determination of organizing principles, the service logical model proposes how and why a unified service system should work.²⁸ The 3 logics are defined as follows:

- **Customer logic** is the underlying rationale that drives customers’ behaviour, based on their needs and wants. It will be evident in what customers expect of the service and how it might compare with other services.
- **Technical logic** is seen as the ‘engine’ of the service operation. It is essentially concerned with the way things are done dictated largely by organization policy, rules and regulations.
- **Employee logic** is the underlying rationale that drives employee behaviour. It will be evident in employees’ perception of working conditions, working methods, organization of work and role clarity.

The service blueprint (Figure 3.5) is an ideal framework for illustrating the 3 logics. The initial contact with the garage represents the first step in framing the customer logic. How is the customer received in relation to how she/he expects to be received? Thereafter additional work and availability of parts will need to be discussed with the customer. The extra cost and further delay will be evaluated by the customer in terms of whether it is reasonable and acceptable. Finally the garage will review with the customer the work that has been done and the customer will depart reflecting on whether the service has offered value for money.

Technical logic reflects on how well the service has worked in terms of resolving the problem(s) to the customer’s satisfaction. The correctness of the diagnosis, the availability of parts and the quality of work performed on the car will indicate how well the service system is working from a technical logic perspective. The final logic, that of the employee examines how working conditions and the related matters of morale and motivation impact on job performance.

Ideally, for the service logic model to operate a unified system and provide a seamless service, the 3 logics must share a common interest. This is not inevitably so. To take just one example in practice, management efforts to contain costs and be more efficient/profitable (technical logic) may come at the expense of customer satisfaction

and employee support. In the view of Leidner,²⁹ referring to the three parties to service work as customers, management and employees, 'it is not uncommon for the aims of the three parties to diverge and in the case of employees and management, be diametrically opposed'. So, although service logic appears attractive in principle, it has some way to go to overcome the hurdles in practice.

Summary

However a service is portrayed, it is a function of design. A range of decisions have to be made from seemingly straightforward issues such as employee uniform design through to the degree and nature of customer contact. Various classifications and options have been suggested, incorporating major variables.

One feature that remains contentious is the balance between front and back office. For many services the front office appears under threat, not only in terms of its retention but also the nature of its operation. Specifically, the front office may adopt the characteristics of the back office.

One tool that is valuable for specifying the precise details of a service is the blueprint. It enables the provider to determine critical/fail points the existence of which can be attributed to a design issue. But no matter how attractive the design is on paper, the tensions exhibited by 'the 3 logics' illustrate the design challenge in practice.

Appendix 3.1 A procedure for blueprinting a service

Select a relatively simple service, ideally one you have experience of (are familiar with) as employee and/or customer. To facilitate understanding of the process, you will probably need to draw upon the knowledge/experiences of management, employees and customers.

Part I: Drawing a service blueprint

You will develop a blueprint of the process steps involved in creating and delivering the service you have selected. Keep your blueprint as simple as possible.

- Show the process for delivering the intended service outcome; e.g. answer the questions 'What happens first, second, third, etc.?' and 'Who performs each step or makes each decision?'
- Which parts of the service process work well, and why?
- Where do things 'go wrong' (break down) in the service delivery, and why?
- How well does the service process deliver the key dimensions of service quality, i.e. tangibles, reliability, responsiveness, assurance, empathy?
- What measures or indicators are used/should be used to evaluate overall performance, e.g. levels of customer and employee satisfaction, revenue/profit/usage, etc.?

Part II: Interpreting the service map

After you have drawn the map, the next step is interpreting the service process. The following issues are simply illustrative of those you may wish to address.

- **Customer expectations:** What can be said, in general, about the level of service customers *desire* and the level of service customers find *acceptable*? How is management planning to address this gap?
- **Customer role:** How involved is the customer in the production and delivery of the service? How would you characterize the nature of that involvement?
- **Employee role** (particularly front-line): What skills/competencies are needed (required) versus what skills/competencies do employees actually have? How is management planning to address the gap – e.g. with training, better employee selection practices, improve/simplify the service process (perhaps through technology)? How would you characterize the quality of the work environment? Consider such issues as training, pay, supervision, physical environment, etc. as explanatory variables.
- **Procedures:** Are they standardized or customized? Technology: How significant a role does it play in the process? What impact does it have on customers? On employees?
- **Organizational culture:** Consider the phrase ‘This is the way we do things around here’ by asking ‘Is there a better way to deliver the service?’ Where are the areas of organizational resistance to innovative service delivery ideas?

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