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A Framework for Analyzing the Quality of the Customer Interface

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The service encounter plays a critical role in determining customer satisfaction. It is the service firm's 'moment of truth'. Surveying and building upon the existing literature, Gabriel Bitran and Maureen Lojo develop a framework for evaluating and improving the quality of the customer interface. They discuss the dimensions of quality and describe six basic phases of service encounters. The management of waiting time, personal interactions, and gaps between customers' expectations and perceptions are also addressed.

Introduction

As described in the first article in this series,[1] the context in which service firms operate can be partitioned into three distinct segments: the external environment, the internal environment, and the customer interface. The *external environment* encompasses product definition and differentiation, as well as competitive forces. The *internal environment* concerns issues similar to those in traditional management of manufacturing operations. Planning and managing these two environments were discussed in the previous paper. We now turn to the third segment, the customer interface. In addressing this segment, we continue our survey of the existing literature on service operations and integrate previous work into a unified framework.

The *customer interface* is the environment in which the service is delivered. It involves contact with the customer, encompassing interactions that are person-to-person, via mail, telephone, fax, computer, or some combination of these. It is this interaction that will shape to a great extent the customer's perception of the service received, and so it can be viewed as the firm's 'moment of truth'. It is at this point that a firm can jeopardize millions of dollars of investment in creating its offerings, because if its representatives are not well trained in the understanding of products and services they can destroy the firm's image and lose a customer.

It is only in the last few years that managers have realized that service interactions are not random events, and can be treated systematically. Although there are many different systems of delivering services, there can be a great deal of structure in the customer interface. This structure ought to be analyzed and improved through insight and discipline. We begin our examination of this topic with a discussion of what constitutes quality in service encounters, and then go on to develop a framework to help evaluate and manage quality.

Service Quality

The quality of service depends not only on offering products that meet customers' needs and delivering them efficiently, but also on creating an atmosphere and overall experience that is satisfying. Service quality is important no matter what market segment is targeted. Even low-priced services that are targeting the least demanding consumers are vulnerable to competition that offers faster or more pleasant encounters. Therefore, quality must concern every manager, not just those in pricey, high-end segments.

The quality of services is much more difficult to measure, inspect, and control than the quality of manufactured goods. Three characteristics of services account for this difficult: *intangibility, heterogeneity* and *simultaneity*.[2] The *intangible* nature of service products makes it difficult for firms to simply measure their characteristics and ascertain whether they meet specifications. This is because the psychological benefits provided by services are often not easily observable, much less measurable. Service products are *heterogeneous* because customers and servers are critical components of the product, and they are diverse individuals that can not be completely standardized and controlled. *Simultaneity* refers to the fact that services are produced and consumed at the same time, thereby preventing firms from inspecting their product before it is sold to their customers. Management can not be present during every service encounter, and so must depend on workers to conduct the customer interaction satisfactorily. If a problem arises, they hear about it after the fact, and only if the firm is lucky enough to have a customer who will take the time to complain. Otherwise, the firm's customer base could be eroding without their knowledge, because dissatisfaction spreads very quickly by word-of-mouth.

Dimensions of Service Quality

Service quality is not unidimensional; it encompasses numerous factors that are important to the customer's satisfaction. Zeithaml, Berry, and Parasuraman describe five primary dimensions of service quality and several related factors, shown in Table 1. *Reliability* is probably the single most important dimension of quality. It is the ability to perform the promised services dependably and accurately. Customers expect that companies will do what they say they will do when they say they will do it, and are very dissatisfied if they do not. *Tangibles* such as the appearance of physical facilities, equipment, personnel, and communication materials are another dimension of quality. These are probably even more important to potential customers than to actual customers, because they serve as quality cues to those who are not familiar with the firm. A third dimension, *responsiveness,* is the server's willingness to help customers and provide prompt service.

Assurance comprises several lower level dimensions of quality: competence, courtesy, credibility, and security. *Competence* depends on the server's possession of the required skills and knowledge to perform the service. The politeness, respect, consideration, and friendliness of servers can be bundled into the term *courtesy,* and *credibility* refers to the perceived truthworthiness, believability, and honesty of the service provider. *Security* is taken for granted by most customers, who naturally expect that they will be free from danger, risk, and doubt in their service encounters.

Empathy refers to the caring, individualized attention the firm provides to its customers. It includes (1) *access,* the approachability and ease with which the customer can contact the firm, (2) *communication,* both keeping the customer informed in language they can understand and listening to them, and (3) *understanding the customer,* making the effort to know customers and their needs.

Framework for Analyzing Service Encounters

Even a very brief service encounter can be quite complex. The behavior and perceptions of the participants are influenced by the specific nature of the service, the delivery system that management has designed, and individual attitudes, moods, and expectations. Dividing an encounter into its component parts facilitates evaluating and managing the quality of the service that is delivered. It serves to simplify and clarify the numerous events and perceptions that make up the overall service experience.

Table 1 Dimensions of Service Quality

• Reliability	• Assurance	• Empathy
	— Competence	— Access
• Tangibles	— Courtesy	— Communication
	— Credibility	— Understanding
• Responsiveness	— Security	

We describe two distinct kinds of components. The first is a set of phases that take place in most service encounters. The delivery of any type of service normally follows a fairly standardized set of steps, though the steps and their sequence may vary between different services. These phases begin with the customer's initial contact with the firm and end with any follow-up that is performed. Each phase of the encounter has certain customer requirements and expectations associated with it, and it may demand varying skills from employees or a specialized infrastructure in the firm. Examining these phases separately allows the firm to better address their unique characteristics.

Elements of service encounters that are found in all of the sequential phases fall into the second group of components. All service encounters and their individual phases have certain similarities. For instance, there is usually some amount of waiting involved in receiving a service — either time spent in a queue or in process delays. There are general guidelines for managing waiting time regardless of the phase in which it occurs. For this reason, it is useful to examine these pervasive elements separately from the phases of service encounters. The pervasive elements that we will address include waiting time, personal interactions, and participants' expectations. This is not an exhaustive list, but these three are key elements in understanding and managing service encounters. This framework for analyzing service encounters is illustrated in Figure 1. We will discuss each of these elements in turn.

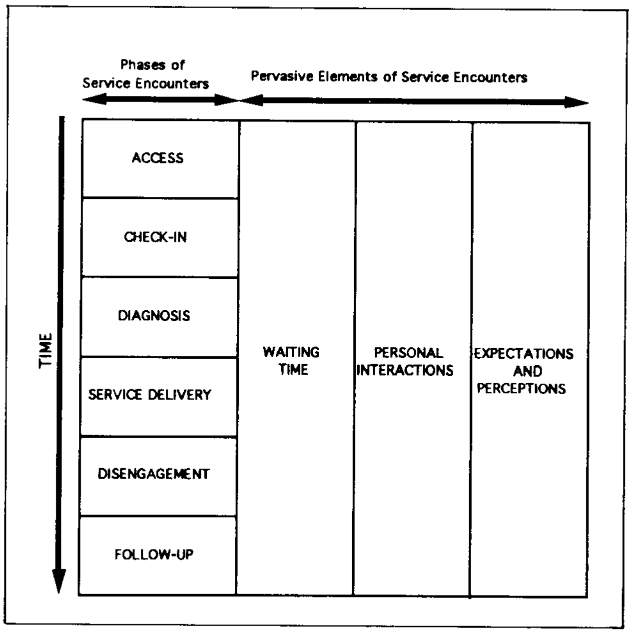

Figure 1 Framework for Analyzing Service Encounters

Phases of Service Encounters

It is not unusual for managers of service operations to implicitly assume that the service encounter cannot be structured due to the multiplicity of needs of a diverse customer base. For this reason insufficient attention and training has been provided to customer contact personnel in many organizations. We believe, however, that the service encounter can be structured to reflect the different phases that take place. One way to classify the bases is as follows: (1) access, (2) check-in, (3) diagnosis, (4) service delivery, (5) check-out, and (6) follow-up. Not all phases take place in every service encounter, and it is certainly possible to detail these phases into sub-phases and add others, but we will limit ourselves to this simplified version of events.

Access

One of the first interactions between customers and service firms takes place during the *access phase*. There are numerous ways in which customers access service firms: by telephone, mail, fax, or computer, or through personal visits — by making appointments, dropping in, or even driving through. The easier it is for customers to access their desired services, the better their initial impression will be of their encounter with the firm. A positive start can smooth the way for the remaining phases by putting the customer in a favorable state of mind. On the other hand, when initial access is bothersome for any reason, customers who have little invested in the transaction can balk at the inconvenience and take their business elsewhere. For these reasons, special care should be taken to ensure that services are easily accessible and thereby make a good first impression on customers.

The access phase is illustrated by the actions that Hertz Corporation has taken to make it easy for customers to pick up and drop off their rental cars. Messages are continuously voiced which, in combination with clear signs, help the customer to figure out where to park and where to go for service. Fidelity Investments, a discount brokerage house that is contacted on the phone by most of their customers, has made sure that customers can have easy access to their systems even on peak market days, and can reach the type of service desired through a simple telephone interface. Other means of providing easy access include parking availability, directions or highly visible signs to help customers locate service facilities, toll-free phone numbers, and convenient business hours.

Check-In

Although the *check-in* phase represents the customer registration, it is useful to remember that it, too, is part of what customers buy and should therefore be designed with their convenience and comfort in mind. Check-in can consist of the customer giving his/her name, identification number, reason for visiting, or some other relevant information that enables the firm to begin meeting his/her needs. For instance, a customer might provide his/her account number before requesting the purchase of a stock or mutual fund. Fidelity Investments has created a multiplicity of mechanisms to facilitate this communication. An example is the consolidated account number. Once the customer gives this number to the company's agent, all of his/her accounts become easily accessible so he/she does not have to provide the individual numbers for all of the funds that are part of the transaction. The Headquarters Hotel in Morristown, New Jersey, designed a check-in system to increase the comfort of its customers; business travelers have their own separate check-in desk that is located on the same floor as their rooms.

It is important to understand what the customer wants before service delivery commences.

Key requirements of the check-in phase are to acknowledge the customers' presence and make them feel welcome. Something as simple as knowing and using the names of regular customers can greatly enhance their service experience and may even be a reason for them to return again and again. If for some reason customers cannot be assisted right away, it is vital to give some sort of greeting so they do not feel ignored, and hopefully provide them with some information as to how long they must wait for service. The check-in phase initializes the service encounter, and should provide the customers with at least some information. They can verify that they are in the right place or be redirected immediately if they are not, thereby avoiding unnecessary waits. Personnel must be knowledgeable enough to know whether a customer's needs can be met, and how best to route them through the service process. If a customer cannot be helped for some reason, she should be connected with the correct person or firm that can provide the requested services.

Diagnosis

The primary server conducts the *diagnostic* phase of the service encounter, in which customers explain why they have accessed the organization and checked-in. In doing so, customers communicate their individual needs and expectations to their server. Workers obviously should not attempt to provide services for which they are not trained or set up. It is much better to refer customers to more appropriate departments or firms than to give them services of marginal quality just to avoid turning down their business.

For this phase, the server needs to learn to listen very carefully to customers. Careless workers will often rush past this phase, assuming they know what customers want and forgetting the individuality and unexpected desires that customers bring to the encounter. It is important to understand what the customer wants before service delivery commences. Then the server can respond by explaining, if appropriate, what the firm offers and how the customer should proceed. Initial consultations with lawyers and accountants are examples of the diagnosis phase. In such meetings, clients explain their problems or needs, and the professional provides estimates of the time and cost required to accomplish their services, and perhaps the expected outcome. Another example is the period just prior to a haircut when the stylist consults with the customer to learn what he wants and possibly to offer some advice.

Service Delivery

Customers' objectives in accessing the firm are met in the *service delivery* phase. It usually requires more time than the other phases, with closer interactions between customers and servers. The customer's overall satisfaction is most dependent on the successful conduct of this phase — it is the heart of the service encounter, with the other phases supporting it. The requirements of this phase are very specific to the particular service being delivered.

Throughout this paper we discuss some general guidelines that apply across different types of services. The dimensions of service quality described in section two (reliability, tangibles, responsiveness, assurance, and empathy) are relevant in all phases of service encounters, but are most vital in this phase, the heart of the customer-server interaction. The pervasive elements of service encounters (e.g., waiting time, personal interactions, and expectations) that are discussed in the next section also demand special attention in the service delivery phase.

Check-Out/Disengagement

The *check-out*, or *disengagement* phase is important to provide some closure to the service encounter, however it is often taken for granted. In fact, in some organizations this phase does not exist at all. For example, in fast food chains customers are on their own after leaving the counter with their orders. However, disengagement needs special attention because it is the last impression that the customer carries from the organization. It is a good time to seek feedback from customers because their impression of the service is still fresh in their minds. In addition, it represents an important opportunity to compensate for any mistakes while still having the benefit of personal contact.

An extreme example of poor disengagement often takes place when customers call a telephone operator asking for an extension. In such instances it is not uncommon for the operators to switch to the desired extension without any comment at all. It amounts to a unilateral disengagement. For a few seconds, customers are not sure what is really taking place. Moreover, customers are often abandoned on the line. That is, if the extension does not answer, they are left to wonder how to proceed. Eventually, they may have to dial again. Not only was the disengagement unilateral, but they were also abandoned in the process.

Follow-Up

Due to the simultaneous nature of the production and consumption of services, follow-up is important in assessing quality. The customer's continued satisfaction with the service or good is ascertained in the follow-up, or post check-out phase, and corrective actions can be taken on any complaints. Although some feedback can be gathered in the check-out phase, customers do not always know if they are satisfied right away, or their perceptions of the service may change after some time has passed. Follow-up should never be an imposition, and any feedback received from customers, whether positive or negative, should be considered a favor. One of the main issues in the post check-out phase is how to deal with dissatisfied customers who feel that they have been seriously inconvenienced by their interaction with the firm. This same issue can also be of central importance during or right after the service delivery phase. It is important to realize that, although a firm may satisfy customers almost all of the time, there are certain events that raise great anger in customers and it is very difficult to erase such events from their memory.

Sometimes it is easy to recognize that an event of this type has taken place. For instance, when an unusual delay to fix the main computer facility of an organization that relies heavily on such equipment occurs, the inconvenience and dissatisfaction of customers subjected to the problem is obvious to the firm. In other instances, however, it may be much harder to realize that the customers have been seriously offended because very similar events are interpreted differently by different customers.

The experience of a friend of one of the authors provides an example. He went to buy the first tricycle for his son in a well known retail shop, and was subjected to what he perceived to be unfair treatment at the pick-up counter; several customers who showed up after him received their merchandise before he did. After putting the tricycle in his car and driving half way home, the father turned around to go back to the store and return the tricycle. Imagine the anger that this father was feeling toward the store. Any parent buying the first tricycle for a child knows that it is almost more exciting for the parent than for the child. Therefore, one has to compare this joy with the anger of the father in order to understand the magnitude of his dissatisfaction. He literally asserted that he would never go back to that store.

Ironically, the retail store never even learned of the story because they were not lucky enough for the customer to complain. Moreover, we know that not everybody would have reacted the same way. This type of situation is not as easy for a company to detect as an obvious inconvenience such as a computer breakdown. Whenever customers perceive that they have been seriously offended or inconvenienced, companies need to do something major and unusual in order to erase the negative impression. Otherwise, customers tend to remember those problems, despite a long string of satisfactory encounters that have preceded them. The process of correcting shortfalls in customer satisfaction is of great importance, and we will return to this topic in the final section of this paper.

These six phases build on each other and form the overall impression that customers take away from the experience. Mistakes made in any earlier phase will influence the customers' attitude and satisfaction in subsequent phases, making it more difficult to please them. It is usually much easier and less expensive to prevent such mistakes from happening than to compensate for them after the fact, in later phases of the encounter.

Pervasive Aspects of Service Encounters

We now turn to some of those aspects of the service encounter that are present throughout all of the phases described above: waiting time, personal interactions, and the expectations and perceptions of participants. These three elements of service are closely linked to quality, and so merit special attention from managers. Guidelines for managing them cut across all six phases of the service encounter.

Waiting Time

There are two types of waiting time in service encounters. The first is time spent in a queue before or in between the various phases. Queues occur whenever demand rises above supply. Given the variable nature of demand, the difficulty of accurately forecasting it, and the costs of over-staffing, queues are inevitable in most service businesses. They occur not only in face-to-face transactions, but also in telephone encounters when customers are put on hold until a service representative is available.

The second type of waiting time is for in-process delays. Even when a customer is receiving the full attention of their server, it may be necessary for them to wait. For example, diners wait for their meals to be cooked, air travelers wait for the plane to land at their destination, and hospital patients wait for the doctor's OK to check-out and go home. In these situations, customers are not waiting for an available server, but rather are in the process of being served. This section applies to both types of waiting. If customers are dissatisfied with their waiting experience, it can set a negative tone for the entire interaction. As emphasized above, it is much easier to keep a customer happy from the very beginning than to regain his favor once it is lost. For this reason, effective management of waiting time is very important in every phase of the service encounter.

Why a Minute is not a Minute

When kept waiting, customers are especially prone to feeling annoyance and perceiving a lack of respect. If their wait is long, they may already be dissatisfied by the time they receive service and it is very difficult to earn their approval at that point. Waiting is something none of us like to do. However, despite the fact that waiting time can be accurately measured in minutes, the perception of waiting time is not completely objective. A minute in our perceptions does not always match a minute on our watches. It can feel like an hour, or like ten seconds. It depends largely on the environment in which we wait. Maister[3] developed a list of propositions that relate the environment to the perception of waiting time.

1. Unoccupied time feels longer than occupied time.
2. Pre-process waits feel longer than in-process waits.
3. Anxiety makes waits seem longer.
4. Uncertain waits are longer than known, finite waits.
5. Unexplained waits are longer than explained waits.
6. Unfair waits are longer than equitable waits.
7. The more valuable a service, the longer customers will wait.
8. Solo waits feel longer than group waits.

Many examples can be found that illustrate these propositions. Recently it has become common to see large video screens in waiting areas, distracting customers who might otherwise grow impatient. Mirrors also serve this purpose, as most people like to check their appearance whenever possible. Another example can be found at Disneyland, where those awaiting the space shuttle ride are entertained by a robot from the Star Wars movie. This essentially begins the ride before people have even entered the shuttle, thereby transforming pre-process time into in-process time.

In banks and government offices such as motor vehicle departments, customers are frequently given any necessary forms to fill out when they arrive in the queue. This serves not only to keep them occupied, but also reduces the service time once they reach the front of the line. Similarly, restaurants usually post menus in view of waiting customers so they can decide what to order before they are even seated. They could pursue this strategy even further by actually taking orders while customers are waiting, thereby overlapping waiting times for tables and food preparation. This would dramatically increase the capacity of restaurants by reducing the service cycle time, but might make customers feel rushed so it is very rarely done. It is a good strategy for firms that are differentiating themselves on the speed of their service, but probably not a good idea in other situations.

The interactions between anxiety, uncertainty, and the customers' need for explanation make Propositions 3, 4 and 5 closely related. Soothing music and comfortable waiting rooms can alleviate customer's anxiety, thereby shortening their perceived wait. Number dispensers and signs indicating the number currently being served provide information as to the expected wait, reducing customers' uncertainty. This also increases comfort and reduces anxiety by enabling customers to move about the waiting area freely, rather than being bunched into waiting lines. Announcements or signs can give reasons for any delays, thereby reducing uncertainty and showing respect by keeping the customer informed. Similarly, traffic reports broadcast by radio stations keep commuters informed and reduce their anxiety. These reports may also serve to give drivers a sense of waiting together rather than alone, which can also reduce perceived waiting time as described by Proposition 8. Doctor's offices are a good example of the difference between solo and group waits. Most patients feel more anxious when kept waiting alone in an exam room than they do when in the waiting room with other people.

Proposition 6 highlights the importance of social justice in people's perceptions of queues.[4] Social justice, or the fairness of the waiting times for different customers, was referred to earlier in the example of a father buying a tricycle for his son. If customers perceive that they have been treated unfairly relative to other customers, they can become infuriated. Queueing disciplines, or the way in which people proceed through waiting lines, are important in ensuring social justice. Generally, after customers have been segmented based on some pre-screening process, perceived social justice depends on a first-come-first-served queueing discipline. A single waiting line for multiple servers guarantees that the first to arrive is the first to be served. This approach to managing queues can be observed in airports, where customers are pre-screened according to what class they are flying in. First class passengers normally benefit from shorter waiting lines as a courtesy and acknowledgement of the higher price they paid for the service. After this initial segmentation, the rest of the customers are routed to multiple servers through a single line, so the first to arrive is the first to be served.

Proposition 7 helps to explain the value of segmentation in managing queues. Because people are willing to wait longer for more valuable services, grouping customers according to the amount they are spending will improve the perception of waiting time when the value of transactions varies. For instance, customers who only want to buy one item at a market will grow very impatient when waiting behind someone buying a cart-load of groceries. Therefore, check-out lanes that are restricted to customers with only a few items greatly increases their satisfaction without reducing the satisfaction of those customers buying many items. This is somewhat counter-intuitive in that customers who are spending less apparently get better service, in the form of shorter waiting times. But this paradox highlights the importance of *perceived* waiting time versus *actual* waiting time. Those customers buying a lot of items have spent much longer in the store and so even a longer actual wait may represent a shorter perceived waiting time because the percentage of their total transaction time spent in line is lower.

Segmenting customers into separate queues based on expected service time reduces the variance on the expected length of their waiting time. For example, banks often have tellers devoted exclusively to business customers because they tend to have large deposits with many individual checks. By servicing them separately, the bank can avoid frustrating customers with short transactions who would otherwise have to wait for tellers to complete large, complicated, business transactions. Plus, there is the added benefit of giving special service to the highly valued business customers. Their lines are normally shorter, and although their wait time may be longer, it is less annoying because their service time is also significantly longer.

Not all queues are due to unexpected demand. Many businesses make money on queues, and so design them into their business plans. For example, restaurant customers often have drinks in the bar while they are waiting for their tables. This can generate a large percentage of the restaurant's total revenue, and so waiting times are actually a planned component of the service delivery. The Benihana of Tokyo restaurant chain controls the expected waiting time through the allocation of floor space between dining rooms and bars.[5]

There are many other examples of companies making money on their queues. Firms offering services via telephones play informative messages about new products and services while customers are on hold. These advertisements generate additional revenues for the companies. Stores almost always place impulse items near their check-out counters to entice customers into last minute purchases. Candy bars and magazines displayed at cashier stations in grocery stores are a very common example of this. Most airlines now place sales catalogs in every seat pocket and allow interested buyers free use of the on-board telephones to place their orders, thereby capitalizing on the customers' waiting time. Entrepreneurial types can even make money on other people's queues. For instance, musicians can often be found playing music for tips in subway stations, and independent hot dog vendors set up stands immediately outside of stadiums where hungry sports fans wait in ticket lines. These methods of capitalizing on queues is not only self-serving; they tend to distract customers from an awareness of their waiting time, and thereby reduce the perceived wait and so indirectly increase satisfaction.

In summary, effective management of waiting time reduces customers' impatience and anxiety, and exhibits a firm's consideration of and respect for customers by keeping them informed and at ease. Special attention must be paid to the issues of control and respect in customer – server interactions. These are the sources of many conflicts between customers and servers, but thoughtful design of the service encounter can reduce potential tensions.

Personal Interactions

In designing and managing service delivery systems,

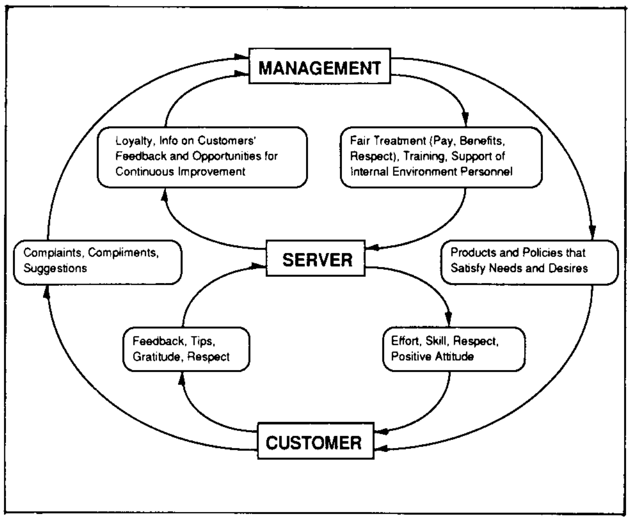

Figure 2 Dynamic Interactions Among Customers, Servers and Management

managers must consider the characteristics of participants in the encounter and factors that influence their interactions. Although the principal players in the service encounter are the customer and the server, there are other constituencies that influence to different degrees the outcome of such encounters. These include management, co-workers, and other workers. The general environment, though not really a participant, also has a strong influence on personal interactions in service encounters.

The attitudes and behavior of *servers* and *customers* are clearly major factors in their interactions. If either one is friendly, rude, irritable, etc., it will most likely be noted by the other side and may invite a similar response. The influence of *management* in these encounters is less direct, but nonetheless powerful. Managers' treatment of both servers and customers will be observed and often imitated. For this reason, it is imperative that managers set an example of respectful, courteous behavior not only to customers, but also to their employees. Figure 2 illustrates the dynamic relationship between the customer, the server, and management.

Co-workers are those employees performing the same function for different customers. If they are having acrimonious interactions with their own customers or with other servers, it will adversely affect the experience of customers who are not even directly involved. On the other hand, if one customer perceives that another is receiving more attention and better service, he will feel resentful and dissatisfied. Additionally, if co-workers are too friendly and talkative among themselves, it may make the customer feel neglected.

Other workers include support staff and personnel involved in peripheral services; for example, hostesses and busboys in restaurants, or associates, paralegals, and secretaries in law firms. Like co-workers, their behavior also influences the customer's experience. Their status within the firm is usually different (either higher or lower) than that of the primary servers, and the respect and cooperation exhibited between these various groups of employees gives the customer a sense of the organization as a whole. Friendly worker interactions create a more comfortable environment, but they must not diminish the level of attention paid to customers.

The general *environment* encompasses the physical and social setting in which the service encounter takes place. The ease and efficiency with which customers are conducted through the various phases of their service experience is a part of the product they are purchasing. The general environment can help or hurt the interactions between the various groups, serving either to facilitate a smooth encounter or increasing the stress and tension for all participants. For instance, a facility that is cramped and hectic is clearly going to encourage different types of behavior than a relaxed, spacious environment. The design of the physical layout and the operational flow of the service delivery system thus has a significant impact on the relationships among the various participants in the service encounter.

As described by Rafaeli,[6] participants in service encounters influence each other according to at least the following factors:

- physical proximity of each party;
- opportunity for feedback from each party;
- time spent with each party;
- importance attributed to each party.

People tend to focus more attention on those parties that are physically closer to them. Their needs and desires are more immediate and apparent, and there is a heightened sense of personal involvement. Physical proximity is also related to the opportunity for feedback. Nearness facilitates the exchange of immediate and accurate information on satisfaction. For example, servers usually exert more effort for customers who are physically present than for those who interact with firms via telephone or mail. Likewise, managers who are able to give more frequent feedback to their workers usually receive greater attention from them. The opportunity for feedback is not based solely on physical proximity, however. Parties who are in a position of authority exert influence because their feedback is particularly potent, even if they are not physically present. For example, consulting firms are likely to be especially thorough and responsive when dealing directly with senior management, and perhaps a bit less meticulous when doing projects for lower level managers. The consequences of displeasing a CEO are clearly much greater.

More time spent with other participants in the service encounter also increases the influence that they have on one another. The longer length of time increases the personal stake that participants have in the encounter, and so reinforces their desire to make it pleasant. An additional factor influencing participants' interactions is the relative importance attributed to the parties involved. For example, in businesses enjoying excess demand, individual customers may be viewed as relatively unimportant, and so will exert less influence on their service encounter than customers who are more needed and therefore more important.

Rafaeli has shown that cashiers in a supermarket tend to be influenced much more by the customer than by managers.[7] The reason is that they spend more time with customers, get immediate feedback from them, and are physically closer to them. The cashiers see management sporadically and need little supervision in the long run. The cashiers have little influence on each other due to their varied schedules and limited on-the-job interactions. Physical barriers and task demands make it difficult for them to entertain a dialogue while working. As for the other workers, for instance those who take care of inventories and stock the shelves, they also have little influence on the behavior of the cashiers.

A situation in which other workers have a significant influence on the server can be found in the restaurant industry. The waiters are often highly dependent on the chefs. The kitchen staff can do special favors by slightly modifying dishes to customers' desires or they can choose to deliberately delay the food of certain waiters. Interactions with the cooks are considered of particular importance by successful waiters and they work hard at establishing friendly relationships with them.

A similar dependence on co-workers may exist when there are significantly different levels of expertise with the product or service. For example, salespeople in high-technology firms rely on the responsiveness and technical capabilities of the applications support engineers to satisfy their customers' needs. Because these roles usually report to different departments, the managerial control may be weaker, putting even more importance on their personal interactions.

These five groups of participants in the service encounter engage in a complex set of interactions that are highly interdependent. A weak link in the chain of relationships between these groups will affect all of the other participants and the encounter as a whole. Different workers will be more or less prominent in the various phases of the service encounter, but their actions must be well orchestrated to ensure the customer's satisfaction.

Expectations and Perceptions

Customers' expectations are obviously a critical factor in determining their perceptions of service quality. Understanding and, to the extent possible, managing those expectations will help the manager deliver the required service quality. Various methods are used to understand the customers' expectations, including complaints, customer desires in similar industries, customer panels, and transaction-based or key client studies.

As mentioned above, services are distinct from manufactured goods in that they are intangible. For example, a machine tool is sold on the basis of its technical merits, e.g., number of cutting axes, tolerance, feed rate, and cutting speed. However, a service, such as a plane trip, is not as easily evaluated. It is difficult for companies to convince customers that a seat on their plane is significantly different from one on another airline's plane. These seats are sold on the basis of the *experience* that the customer will have. But it is difficult for a customer to know what the experience will be like before actually buying it, and once bought, the experience is greatly influenced by expectations and subjective elements. Therefore, companies must actively shape their customers' expectations to manage their experience of the service. This requires understanding the psychology of the customer and the market segment, because selling services involves appealing to the consumer's psychological needs.

Psychology affects not only customers' expectations, but also their perceptions. For instance, an owner of a chocolate shop who employed two women noticed that one of them was preferred by the regular customers. He could not understand why, because they were both about the same age, polite, and had no major differences. This puzzled him for some time, until he noticed that the woman whom customers liked started with fewer chocolates and added more to reach the desired weight. The other woman started with more and then took some away. Apparently this slight difference was important to customers, who were willing to stand in line waiting for their preferred server, even though the candy scale would indicate that they did not benefit by doing so.

Diagnosing Quality Problems

Quality problems result when the service that is actually delivered does not meet the customer's expectations. There can be a variety of reasons for this mismatch, but diagnosing the source of quality problems demands discovering exactly where the gap between expected and delivered service arose. Zeithaml, Berry, and Parasuraman developed a model, shown in Figure 3, that is very useful for evaluating the sources of quality problems.[8] Gap 5, located between expected service and perceived service, is the overall measure of quality. Gaps 1 to 4 indicate the sources of the quality shortfall.

One possible source of problems is managers misunderstanding the customer's expectations. This is represented by Gap 1. The organization is unlikely to provide the desired service if their perception of the customer's need is distorted. Gap 2 arises if management fails to create service specifications that accurately reflect their perception of the customer's desires. In this case, employees may be doing exactly what is asked of them, but their service will still fail to satisfy the customer. However, even when

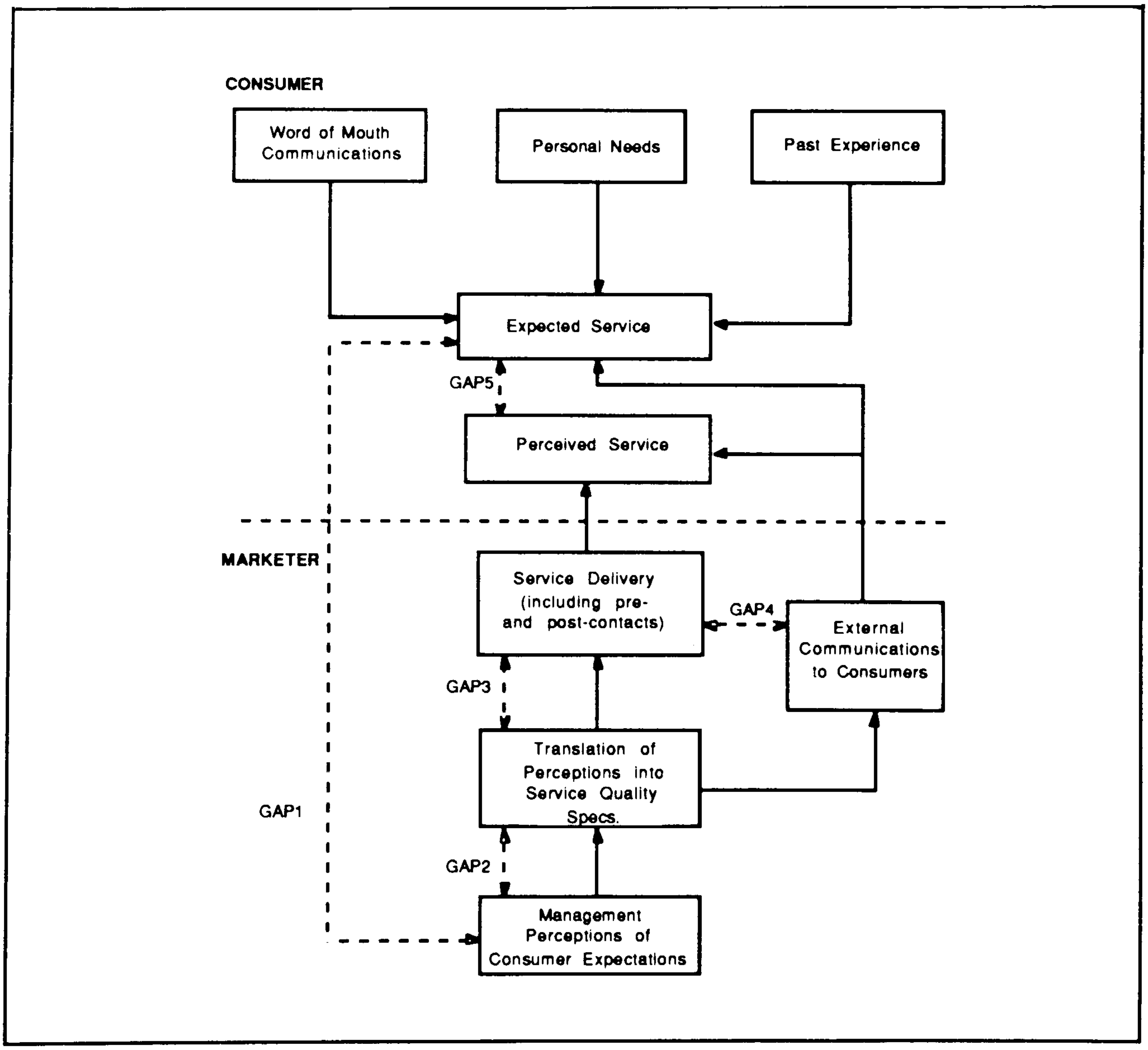

Figure 3 The Gap Model of Service Quality

specifications are well formulated, if servers are failing to meet them, Gap 3 will indicate this. The fourth gap concerns external communications to consumers. Advertisements and other marketing mechanisms not only help to shape the customers' expectations, but also affect how the service is perceived by them. If these communications do not truthfully represent the service that the firm actually delivers, Gap 4 will be created. Of course, there may be multiple gaps at any given time, and in those cases Gap 5 will be the summation of Gaps 1 to 4.

Customers and servers do not necessarily perceive in the same way the service that is actually delivered. Workers' behind-the-scenes knowledge of the service operation may make certain characteristics of the encounter apparent to them, but these same characteristics may be invisible to or perceived differently by the customers. For example, Benihana of Tokyo, a chain of Japanese steak houses, is able to control the flow of customers through their restaurants by timing the performance of the chef, who impressively slices and dices the food at table-top grills for the customers' entertainment. Once the performance is over and the meals are delivered, customers are left to make conversation with complete strangers who share the large tables with them. Understandably, diners do not linger over their meals but depart fairly soon after finishing, thereby opening up the table for the next party. Unlike employees, customers are completely unaware that the chef's performance time is adjustable, and generally leave the restaurant very satisfied with the entertaining service they have received.[9]

There are many other ways in which servers can control the pace of service encounters. Amusement park ride operators can adjust the length of time that customers spend on ferris wheels, bumper cars, etc. Waiters can bring coffee or ice cream a bit sooner after diners complete their meal, or even refrain from suggesting any dessert at all. These variations in service and waiting time are generally imperceptible to customers, but are obvious to servers and very useful in managing customer flow.

Feedback
Before attempting to reduce the gaps between customers' expectations and perceptions, it is obviously necessary for managers to determine just what customers' expect and perceive. There is a variety of ways to do this, but the most common is simply to directly solicit their feedback. As mentioned above, this is frequently done in the follow-up phase of the service encounter. For instance, auto dealerships often contact their customers a month or two after their purchase to find out if they are satisfied, and many other types of organizations also administer brief surveys some time after the transaction is completed. Feedback can also be gathered in the disengagement phase. For example, restaurants usually have space on their bills for guests to express any complaints or compliments about their food or service, and cashiers, hostesses, or managers may inquire about their satisfaction as they depart. However, soliciting feedback is not restricted to the final phases of service encounters. Firms can and should get feedback throughout the entire interaction, rather than waiting until it is over. This gives them the opportunity to correct or compensate for any shortfalls in service delivery.

However, this advice is given with a warning. A firm's desire to ensure that their customers are satisfied with their service experience can backfire if employees make pests of themselves by asking too often. Excessive inquiries are intrusive and may appear to be insincere. Indeed, they can even hurt the quality of service by distracting employees from their main tasks. Customers are not unpaid consultants, and the quality of the service that they receive, though clearly of interest to them, is not their responsibility.

Gathering feedback in the midst of the encounter should be done in more subtle ways than posing repetitive questions. Apparent agitation or impatience conveyed through facial expressions and body language should not be ignored (as is so often the case) until they grow into verbal complaints. Many customers do not like to complain, and will express dissatisfaction only by taking their business elsewhere, at which point it is usually too late to win them back. This creates a potential problem with feedback data collected from current customers. Dissatisfaction drives away critics, so surveys of current customers may indicate very little dissatisfaction, even if service quality is poor. The customers that remain may be less discriminating or have a lower level of expectations. This is not the best group to turn to for feedback. Therefore, firms must try to contact lost customers or competitors' customers to get accurate information on their own performance.

A final caution regarding collecting feedback from customers: an inquiry about satisfaction must be followed up by some action to correct any problems that are reported. It only adds insult to injury if a customer's negative feedback receives excuses or empty apologies in response. So don't ask if you don't mean business. Service guarantees address this issue. Not only do they encourage dissatisfied customers to report their complaints, but they also spell out a firm's response, effectively backing up promises of high quality.

Table 2 Characteristics of Good Service Guarantees

• Unconditional	• Easy to communicate/understand
• Meaningful	• Easy and painless to invoke
• Credible	• Easy and quick to collect

Service Guarantees[10]
A service guarantee is much more than a marketing stratagem. It forces an organization to explicitly define its customers' needs, to understand all of the elements of its service delivery process, and to determine the root causes of its operational problems. Furthermore, it gives a firm a sense of urgency in addressing quality shortfalls. Hart emphasizes that in designing service guarantees, it is best to make them unconditional.[11] Potential customers scoff at guarantees with fine print, and restrictive conditions only cast doubt on service quality and may lead to disputes with dissatisfied customers. Guarantees should also be meaningful — they should promise specific recompense in the event that service does not meet the promised level of quality. But such promises must be believable, or customers will view them as advertizing gimmicks and ignore them. Complexity is similar to restrictive conditions in giving a negative impression of a firm. Clarity and simplicity facilitate describing the guarantee in customer communications, and help people to understand and remember it. When firms do receive complaints from customers, they must ensure that their customers receive the promised compensation cheerfully and quickly. A grudgingly administered guarantee is worse than none at all. These recommendations are summarized in Table 2.

Delta Dental Group of Boston pioneered service guarantees for insurance companies. If customers are dissatisfied with the treatment they receive, they can call to register their complaint, and they will be refunded part or all of the cost. Thomas Raffio, senior vice president of operations, attributes the success of Delta's 'Guarantee of Service Excellence' program to the following factors:

- Conducting appropriate employee education and training;
- Redesigning the organization to support team servicing;
- Using market research to design guarantees that are meaningful for both existing and potential customers;
- Testing the program before roll out;

- Frequently communicating the program's status to all stakeholders.[12]

The credibility of such a guarantee depends not only on the specifics of the promise being made, but also on the reputation of the company making the promise. Customers are understandably wary of fly-by-night operations making offers that are too good to be true. On the other hand, customers realize that a well-established firm with high name recognition cannot afford to advertize a guarantee that it will not stand behind.

The benefits of service guarantees are greatest when customers perceive some risk associated with their purchase. For instance, customers' buying decisions will be more influenced by guarantees when:

- the price of the service is high,
- their expertise with the service is low,
- there are negative consequences to poor service,
- the common image of service quality in the industry is low, or
- the customer's ego is somehow on the line.

Guarantees are also beneficial when a company depends on a high rate of customer repurchase, and when business is affected strongly by word of mouth.

Beyond satisfying customers, guarantees can make life much easier for employees. They serve to clarify the firm's expectations of them in potentially difficult situations with customers. Servers know exactly how far they are authorized to go in meeting customers' needs. Not only does this eliminate stressful judgment calls, but it also improves the consistency of service among various workers by ensuring that they share a common understanding of company policies.

Management's attitude toward its guarantees sets the tone for employees to follow. If managers try to minimize its cost while maximizing its marketing punch, a service guarantee is unlikely to be taken seriously by workers. A more constructive view is that guarantees are the most reliable way to identify operational areas needing improvement, and when they are not acted upon, valuable data is lost. Money spent on backing up guarantees is an investment in customer satisfaction and loyalty. However, firms should not introduce guarantees prematurely — they must be positioned to provide the promised level of service, and to make good on their guarantee whenever they fail to do so.

Conclusion

In summary, the service encounter demands special attention from managers because it is the moment of truth for service organizations. It determines the customer's perceptions of and satisfaction with the firm. Breaking down service encounters into phases and pervasive elements facilitates design, analysis, and diagnosis of quality. Smoothly moving customers through the various stages of service improves the overall experience for both customers and workers. Furthermore, these distinct elements create a structure that is very helpful in examining the strengths and weaknesses of the service delivery system.

The management of waiting time is an often neglected issue in service operations. Improving the customer's waiting experience offers great potential for increasing satisfaction. In fact, firms can often capitalize on queues and improve the customer's experience at the same time. We discussed strategies that reduce the perceived waiting time and provide information to customers so they do not feel that they have lost their control of the service encounter. Evaluating quality, finding the sources of quality problems, and resolving them through understanding the perceptions and expectations of both customers and workers is perhaps the most important topic we addressed.

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