

HOW TO IMPROVE PERCEIVED SERVICE QUALITY BY INCREASING CUSTOMER PARTICIPATION

Pratibha A. Dabholkar, Georgia State University

Abstract

A conceptual framework is developed to examine the impact of customer participation in service delivery on perceptions of service quality. It is proposed that for certain services, such as those familiar to consumers or those requiring a low level of expertise, increased customer participation will generally lead to higher perceived service quality. Both direct and indirect effects of customer participation on perceived service quality are examined. A causal model is proposed to encompass these relationships and serve as a foundation for future empirical research. Implications for service firms are discussed.

This paper examines a major determinant of service quality -- customer participation -- and proposes a model based on literature and social psychology theory to describe the relationship between customer participation and service quality. The model explicates the underlying reasons for this relationship in a series of propositions. The relationship is set up as a causal model which can be used to test the outlined propositions in future empirical research. The model is amenable to both survey and experimental research designs and also serves as an illustration for investigating other determinants of service quality.

Introduction

The importance of service quality to consumers and therefore to providers is unquestionable. Consumers are seriously committed to seeking quality in their purchases and in their lives, and in recent years have been demanding higher quality services (Rabin 1983; Berry, Zeithaml, and Parasuraman 1985; Sherden 1988). For service providers, quality is directly linked to image, sales, and profitability (Berry, Bennett, and Brown 1989; Buzzell and Gale 1987; Lewis & Booms 1983; Rothman 1983; Rudie & Wansley 1985). Moreover, with the growing role of services in the U. S. economy, service quality is becoming an increasingly important research area for conceptual and empirical applications. It is not surprising that the Marketing Science Institute has given very high priority to research related to "the perception and evaluation of service quality" (Marketing Science Institute 1986).

Research on service quality has focused mainly on determinants that originate with the service provider. Customer-related variables and their impact on service quality have not received much attention. Yet, due to the interactive nature of services, customers can and do affect the quality of services provided. By applying theoretical insights from various disciplines, conceptual models need to be developed to describe the relationships between service quality and a whole range of customer-related determinants including encounter-related, demographic, and psychographic variables.

Empirical support of such relationships can help in developing services marketing theory, which can then be applied by service firms to improve service quality. Also, past research on service quality has relied mainly on surveys and simple analytical tools such as cross-tabulations. There is a need for more experimental research and sophisticated analytical techniques to enhance our knowledge of service quality and its determinants.

Background

Many services today can be designed with increased customer participation. Examples are food bars in restaurants, home banking, and do-it-yourself services ranging from tax preparation to car washes. Thus, it is worthwhile exploring whether increased customer participation would improve the perceived service quality of the service. There have been some conceptual articles describing the concept of customer participation (Silpatik and Fisk 1985; Bateson 1985a; Schneider and Bowen 1985) and one well-known empirical study on customer participation (Langeard et al. 1981). There has also been some discussion about the link between customer participation and service quality (Lovelock and Young 1979; Zeithaml 1981; Mills and Moberg 1982), but no conceptual model has been developed to describe the relationship.

Studies have been done on "actual waiting time" in service situations, and queuing theory has been successfully applied to service industries with waiting lines such as telephone service and airlines (Czepiel 1980). This approach is equally applicable to fast-food restaurants, banking, grocery stores, department stores, discount stores, post offices, public health delivery systems, and so on. There has been some research and/or discussion linking customer participation with waiting time and waiting time with service quality (Maister 1985; Langeard et al. 1981; Bateson 1985b) but no conceptual framework has been suggested linking the three variables. Research on perceived control in services marketing (from the customer's perspective rather than the contact person's) has been fairly limited (Bateson 1985a; Langer and Saegert 1977; Langeard et al. 1981) but does establish a link between perceived control and perceived service quality.

Developing a Conceptual Framework

Perceived Service Quality

Bonner and Nelson (1985) point out that the customer's perception of service quality is often different from the producer's evaluation. Jacoby and Olson (1985) support this difference by introducing two separate concepts of quality: actual (objective) quality and perceived (subjective) quality. They propose that perceived quality is more closely tied to sales performance, and therefore merits more attention. In his book, Commit to Quality, Townsend also makes a distinction between "quality in perception" and "quality in fact."

Zeithaml (1988) defines perceived quality as a consumer's judgment about the overall excellence or superiority of a product. Given that the word "product" as used today encompasses both goods and services, perceived service quality can be defined as the consumer's judgment of the overall superiority of a service.

The model developed in this paper is based on the concept of perceived rather than actual service quality. Perceived service quality can be operationalized using a multi-attribute scale to measure customer perceptions of various attributes of service quality (cf. Gronroos 1983; Klaus 1985; Parasuraman, Zeithaml, and Berry 1985).

Customer Participation

"Customer participation" refers to the degree to which the customer is involved in producing and delivering the service. It is a behavioral concept related to the customer's active role in the service encounter (Silpatik and Fisk 1985). Bateson (1985a) writes that it is only in the service industry that the customer has both a "production role and a consumption role." For instance, in a self-service situation such as the use of a bank automated teller machine (ATM), the customer is also the producer.

Schneider and Bowen (1985) illustrate the concept of partial customer participation with examples such as bank customers filling out deposit slips, and tax accountants' customers keeping and bringing their receipts. Full customer participation, on the other hand, occurs in the use of ATMs, or self-service gas-stations, laundromats, and car washes. Even the acquisition of service-related information before the service delivery is a form of customer participation (Schneider and Bowen 1985, Bowen 1986), because it saves the service provider time and effort.

Thus customer participation has two components. One is the option customers have to perform a given service themselves rather than having someone else provide it for them. This component can be operationalized by measuring the extent of the respondent's willingness to participate in service production given that an option to do so is available. The second component of customer participation is the acquisition of service-

related information at the site of the service delivery. The ability and willingness of customers to acquire such information can be measured to operationalize this aspect of customer participation.

Customer Participation and Perceived Service Quality

In the past, the issue of customer participation and its benefits for the firm have been discussed mainly in terms of productivity (Lovelock and Young 1979; Mills and Moberg 1982; Silpatik and Fisk 1985; Bateson 1985a; Schneider and Bowen 1985). It has been pointed out that allowing the customer to perform some of the tasks associated with service delivery reduces labor costs and increases the efficiency of the organization. However, there has been some concern about whether the customer would be willing to participate in the production and delivery of the service, and then be expected to pay for it too, i.e. would customers perceive a higher service quality if they had to participate in its production?

Some authors do propose a possible relationship between customer participation and service quality. Zeithaml (1981) explains that customer participation plays a role not only in the production of a service, but also in its definition, which in turn affects the quality of the service. For example, in purchasing financial services, if customers fail to define their investment objectives and/or to communicate them to the service provider, they will not obtain high quality investment advice. Chase (1978) advocates reducing customer contact (which often leads to increases in customer participation), to increase the efficiency of a service operation. For example, the purchase of self-service gasoline reduces customer contact but increases customer participation.

Lovelock and Young (1979) believe that increasing customer participation not only increases productivity, but also results in better service to the customer. For instance, they point out that self-service buffets not only save on labor costs but also allow the customer to select the "food they want, in the quantities they want, and without delay." Mills and Moberg (1982) list the activities that the customer should perform for improving service quality, and suggest that the firm regard the customer as a "partial employee."

It is important to note that for services requiring a high level of expertise, most customers would prefer to have the service performed for them. Similarly, for services that are new and unfamiliar, the majority of customers will not perceive benefits in performing the service themselves. Thus, although the literature seems to indicate a general relationship between customer participation and perceived service quality, it is more likely that this relationship will only hold for highly familiar or low-expertise services. Thus, it is proposed that:

P1: For highly familiar or low-expertise services, an increase in customer

participation will result in an increase in perceived service quality.

Perceived Waiting Time

Although the measurement of actual waiting time in service production and the determination of the optimum number of telephone operators, ticketing clerks, tellers, check-out clerks, or health care providers helps the service firm to improve productivity (Czepiel 1980), it may not have a direct effect on perceived service quality. Instead, a better means for increasing perceived service quality may be to reduce "perceived waiting time", or the time a customer perceives he/she has waited during a service encounter. Nevertheless, actual waiting time will affect an individual's perception of waiting time. Thus:

P2: An increase in actual waiting time will result in an increase in perceived waiting time.

However, actual waiting time is not the only determinant of perceived waiting time. While five minutes may seem very short to one person, it may seem very long to another, depending on their personalities, time availability, and even demographic characteristics. In terms of measurement, actual waiting time can be clocked by the researchers. Perceived waiting time is a variable that is also fairly easy to operationalize. One simply asks the respondents how long they think they have waited.

A famous Federal Express commercial in the early 1980s had noted that "waiting is frustrating, demoralizing, agonizing, aggravating, annoying, time-consuming, and incredibly expensive" (Fortune 1980; Maister 1985). Maister reiterates the common knowledge that waiting affects our overall perceptions of service quality. If a customer perceives that they have not waited long, they are likely to evaluate the service more highly. Hence we can make the following proposition:

P3: A decrease in perceived waiting time will result in an increase in perceived service quality.

Time is an important attribute to people who prefer to participate in a service encounter (Langeard et al. 1981; Bateson 1985b). Lovelock and Young (1979) also support the idea that people tend to participate more in service production in order to reduce perceived waiting time. We know from personal experience that if we are occupied while waiting, the time seems to pass more quickly. In his propositions on waiting, Maister (1985) suggests that unoccupied time feels longer than occupied time. Thus, people often prefer to participate in service production because "doing something" helps reduce perceived waiting time. This is even more relevant if customers are familiar with the service and perceive it as one that requires a low level of expertise. Therefore based on observation and backed by literature, it is proposed that:

P4: For highly familiar or low-expertise services, an increase in customer participation will result in a decrease in perceived waiting time.

Perceived Control

"Perceived control" can be described as the amount of control that a customer feels he/she has in a service encounter. (Note that this is a different concept from the control perceived by customer-contact personnel cf. Zeithaml, Berry, and Parasuraman 1987). Borrowing from psychology, perceived control can be thought of as a combination of decisional control and cognitive control. Averill (1973) defines decisional control as the control perceived by individuals when they have the option to choose an outcome. He defines cognitive control as the control perceived by individuals when they gain adequate information about or are able to appraise a given situation. Both forms of control are related to the individual's ability to reduce stress in a given situation. Perceived control can be operationalized using these two constructs.

Many service situations offer customers a choice between self service and full service (gas stations, banks, restaurants, car washes). If a service firm offers only self service and a competitor provides only full service, customers still have a choice. They can choose to participate in service production or to be waited on. Thus, the very option of participation versus non-participation appears to be associated with greater perceived control (decisional). Empirical research shows that "doing-it-themselves" offers customers more control over the situation and that "control" as an attribute is more important to people who prefer to participate in service encounters (Langeard et al. 1981; Bateson 1985a).

Acquiring information about the service (on site) is a form of customer participation that is also likely to be associated with increased perceived control (cognitive). Bateson (1985a) writes that perceived control can be increased by educating the customer. For instance, reading literature on one's specific health problem while waiting in a doctor's office is likely to educate the patients, increase their participation in taking care of their own health, and increase their perceived cognitive control. Thus, the following propositions are suggested:

P5a: For highly familiar or low-expertise services, an increase in customer participation (in terms of performing the service themselves) will result in an increase in perceived control.

P5b: For most services (including unfamiliar and high-expertise services), an increase in customer participation (in terms of acquiring information about the service while on site) will result in an increase in perceived control.

By inductive reasoning it would appear that there must be a link between perceived control and

perceived service quality. Bateson (1985a) writes that the concept of perceived control can be usefully applied in understanding the service encounter; he suggests that by increasing perceived control one can enhance the value of the service to the customer. Empirical research also supports this proposed relationship. In a study on crowding and cognitive control in a supermarket situation, Langer and Saegert (1977) found that perceived control affects consumer behavior in a service encounter and is an important dimension along which consumers appraise services. The respondents in this study who were given information about the likely effects of crowding had higher cognitive control, were better able to finish the shopping task, and appraised the shopping experience more positively. Thus we can postulate that:

P6: An increase in perceived control will result in an increase in perceived service quality.

Perceived Control and Perceived Waiting Time

Applying the concepts of decisional and cognitive control, we can investigate a possible relationship between perceived control and perceived waiting time. Maister (1985) postulates that uncertain waits feel longer than known waits, and unexplained waits feel longer than explained waits. If a person is uncertain about the length of the wait, or, if no explanation is given about the reason for the delay, the cognitive component of the individual's perceived control will decrease and as a result his/her perceived waiting time is likely to be longer. Conversely, the longer a person perceives he/she has waited, the decisional component of his/her perceived control is more likely to decrease because the person senses a reduction in control over the outcome.

Everyday observation would tend to support these relationships. If customers perceive that they have not waited too long, they will feel more in control. Also, if they perceive a high level of control in a given service encounter, they will tend to conclude that their waiting time has not been unreasonably long. Thus there appears to be a two-way or non-recursive relationship between perceived control and perceived waiting time:

P7: A decrease in perceived control will result in an increase in perceived waiting time.

P8: An increase in perceived waiting time will result in a decrease in perceived control.

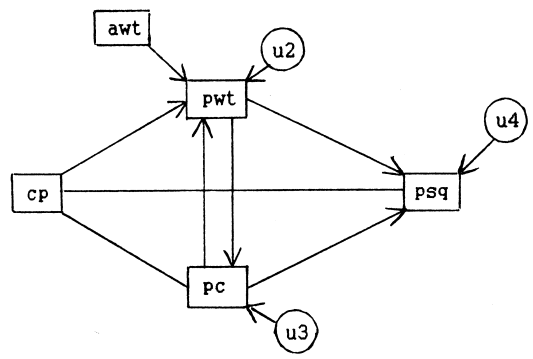
A Causal Model
Based on the Conceptual Framework

It may be noted that all the propositions in this paper are causal or directional in nature. Hence a causal model can be developed provided that other conditions for confirmatory analysis can be met (cf. James, Mulaik, and Brett 1987). We have seen that the variables can be operationalized, the relationships can be expressed as theoretical statements, and that they are supported by literature. The only major question then is

whether other exogenous variables may possibly have an effect on perceived service quality.

It is true that other variables (such as price, environment, technical expertise, consumer orientation) would normally affect perceived service quality. However, if this model is to be applied to study how participation affects the perceived service quality for a given service firm, then all extraneous variables that might otherwise affect service quality (price, environment, etc.) can be assumed to be held constant. This is easy to visualize for a given service location. By offering customers the option to participate or not, customer participation can then be viewed as the only exogenous variable that affects incremental changes in perceived service quality. In terms of causal analysis, the system is self-contained.

Figure 1
A Causal Model Showing the Impact of Customer Participation on Perceived Service Quality



where,
 cp = customer participation
 pwt = perceived waiting time
 awt = actual waiting time
 pc = perceived control
 psq = perceived service quality

and u2, u3, and u4 are the disturbance terms containing random shocks and unmeasured variables.

The causal model is presented in Figure 1 and each proposition developed in this paper is represented by a path. The model shows the direct effect of customer participation on perceived service quality (see proposition P1) as well as its indirect effect through the intermediate variables of perceived waiting time and perceived control (see propositions P3-P6).

Finally, given that the model is not fully recursive, the two-way interaction between perceived waiting time and perceived control (see propositions P7, P8) requires that one of these two variables must have an "instrument" i. e., an independent variable that has a direct effect

only on that variable. Actual waiting time serves as the perfect "instrument" for perceived waiting time (see proposition P2).

Summary and Implications

Past research on the determinants of service quality has focused mainly on variables directly controlled by the service provider. The conceptual framework developed in this paper focuses on a customer-related determinant of service quality. A causal model is proposed to describe the relationship between customer participation and perceived service quality, particularly for highly familiar, low-expertise services. It is suggested that customer participation affects perceived service quality both directly and indirectly through its effect on perceived waiting time and perceived control. Key terms are defined and suggestions are made regarding operationalization of the variables.

For readers concerned about the exclusion of customer expectations in the model, the following explanation should help. Most of the research on customer expectations of service quality suggests that service quality is the difference between perceived and expected service. If perceived service exceeds expectations, the quality is higher and vice versa. Consequently, firms must ensure that expectations do not rise too high. The other task of the firm is to improve perceptions of the service delivered as much as possible. Given that expectations are created largely by media and past experiences, this model concentrates only on improving the perceived service in order to increase service quality.

The model can be tested in future empirical studies across many types of service situations. It is amenable to both survey and experimental research designs. If empirically supported, it can contribute to services marketing theory, which can then be applied by practitioners in the service industry to improve service quality.

The verification of the model will allow firms to enhance service quality by re-designing their services to offer increased customer participation. Full-service restaurants can consider adding food bars, tax accountants can offer an optional service where clients do more "homework," and public health delivery systems can provide useful health-related information to patients who wait. Post offices can install stamp machines, airports ticketing machines, and department stores electronic displays with fashion information. Such equipment encouraging customer participation is already being tested but the advantages have not yet been established.

If verified, the model can also offer insights on how waiting time and control from the customer's perspective affect perceived service quality. Thus, it can encourage firms to reduce waiting time and/or design the service encounter to keep customers occupied while they wait. Some service firms already seem to be concerned about these issues. The use of service-related information on the telephone to occupy and inform people "on hold" is increasing. Banks post interest rates

and other information where people waiting in line can read it. Some doctors provide health-related printed information in waiting rooms and a few have experimented with showing health-related videos to waiting patients.

It must be acknowledged that not all individuals are equally likely to participate in service delivery. Most people seem more than willing to participate if there are time and cost savings (Lovelock and Young 1979). Some may prefer to be waited on irrespective of circumstances. Others prefer to participate in service delivery across all situations, irrespective of cost savings; these people are more likely to be young, male, well educated, and impatient (Langeard et al. 1981). The proposed model can be used to test whether the relationships postulated are stronger for certain groups of customers. Also, some customers may be less able than others to participate due to physical or mental handicaps. In this case, services commonly regarded as requiring low expertise will be considered as high-expertise services by these people and they will act accordingly.

Although the model does not take into consideration the influence of other customers on the premises and interactions with service providers, these factors may be indirectly included in the other variables. For instance, if the line for full service is long (i.e. many customers are on the premises), there may be a greater incentive to participate. In terms of this model, the customer is translating the presence of customers into waiting time and choosing to participate in order to reduce waiting time and increase perceived control.

A legitimate concern of some service firms is that increased customer participation may reduce control by the provider and thus lower employee morale, increase the variability of the service provided, and hamper professionalism. The solution may lie in carefully designing the service (cf. Shostack 1984) so that part of it can be performed by customers to increase both efficiency and perceived service quality, while the rest of it can still be performed by the providers to minimize detrimental repercussions.

An important implication for marketers is that if customers do perceive a higher service quality when they participate in the delivery of certain services, then they may be willing to pay a higher price. Some firms have successfully incorporated this assumption in their strategies. For example, TRW Inc. sells computerized and customized mailing lists to other companies for direct marketing (The New York Times 1989). The client has the flexibility to experiment with different combinations while the company saves a bundle in labor costs. Rather than admitting that this is a cost-cutting measure and passing the savings on to customers via lowered prices, TRW astutely markets the service as a value-added offering and has been extremely successful doing so (Dabholkar 1990).

REFERENCES AVAILABLE UPON REQUEST