

Customer Control and Evaluation of Service Validity and Reliability

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ABSTRACT

A control and attribution model of service production and evaluation is proposed. Service production consists of the stages specification (input), realization (throughput), and outcome (output). Customers may exercise control over all three stages of the service. Critical factors of service production are service validity (is the correct service produced?) and reliability (is the service correctly produced?). With more control, customers feel more responsibility for and satisfaction with the service outcome. If this is the case, there is less attribution of service outcomes to the service provider and more to the customer, as a party in the service production. Self-perceptions and perceptual and attributional biases play a self-serving role to justify customer service engagement. Attributions of service outcomes determine perceptions of service quality and behavioral responses such as (dis)satisfaction, complaints, repeat buying, and service loyalty. These customer control and evaluation processes are captured in a set of propositions, advanced to serve future research. © 1998 John Wiley & Sons, Inc.

Services become more important as consumers spend a higher proportion of their discretionary income on services, such as educational, medical, recreational, and tourist services. Products now are often sold as a product–service combination, for example, a leased product with an after-sales service option. Selling or leasing hardware becomes part of a servicing relationship with customers.

A service is a joint action of the service provider and the customer. In this article attention is focused on the control over the service specification (input) and realization (throughput, process) of the service outcome. Service specification is the agreement between the customer and the service provider about the type of service, service characteristics, and how the service will be provided. The service realization process is the actual creation, execution, and delivery of the service.

Customer evaluation of the service outcome depends on whether service specification and realization were in accordance with expectations. In most cases, consumers enter the service encounter with prior desires and expectations about the service outcome. In line with the expectancy–confirmation paradigm in the consumer-satisfaction (Oliver, 1980) and service-quality literature (Parasuraman, Zeithaml, & Berry, 1988), it is proposed that customers use their prior expectations and specifications as a reference point to evaluate the actual service outcome. The resulting evaluation of the service may be positive (if the actual service outcome is within the range of specifications) or negative (if the actual outcome falls short of specifications).

The evaluation entails a causal attribution of service outcome to the service provider, to oneself (customer), or to circumstances. This attribution and evaluation process is laden with self-serving and ego-enhancing biases (Bradley, 1978; Mullen & Riordan, 1988). In situations where customers significantly participate in the service specification and realization, they may perceive more control over the service outcome. More control means more internal attribution of the service outcomes. The evaluation of the service outcome feeds back to the contributions and control of both parties. The consequences of this evaluation are (dis)satisfaction, and, eventually, behavioral responses such as repeat buying or complaints.

The purpose of this article is to conceptually relate customers' and service providers' control of service specification and realization to customers' causal attributions of the outcome. Managerial implications are given to improve service performance. In a set of propositions, suggestions for future research are provided. A model of the main concepts of this article is given in Figure 1.

THE SERVICE PROCESS

Service Stages

The provision of a service is a process with input, throughput, output, and evaluation stages. The input stage begins with the expectations held by both parties, and communicated to each other. Either party may take the initiative: service providers may persuade prospects (potential customers) to buy a service, and customers may require a service from

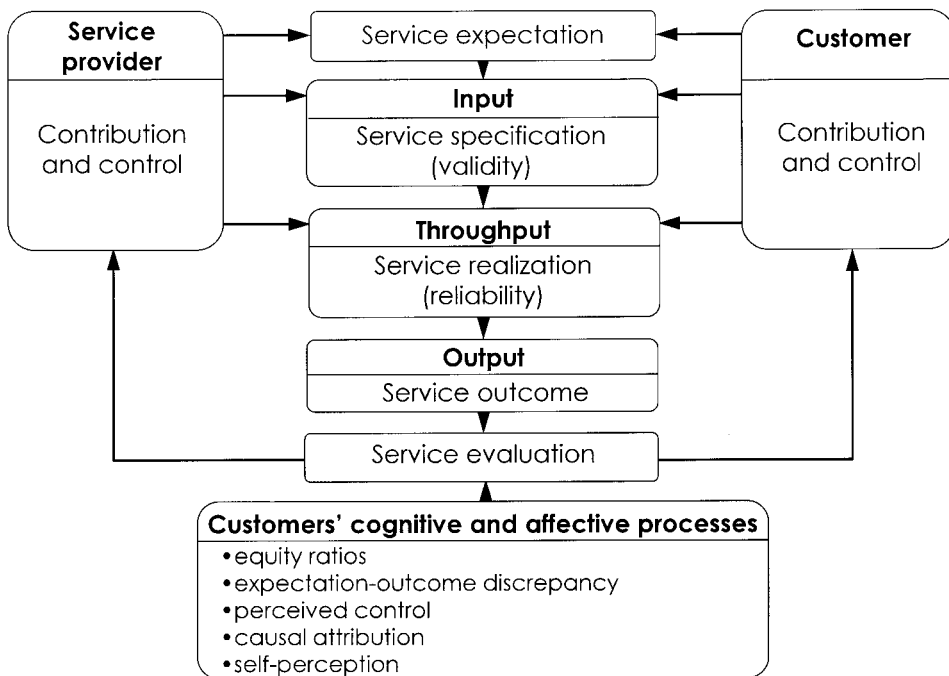


Figure 1 A model of customer and service-provider control of service validity and reliability.

the service provider. The expectations form the basis of the second part of the input stage, namely, service specification, where an agreement is reached about the type of service to be rendered, including price, design, quality, timing, and other service characteristics. Customers have to enunciate their queries, desires, and requirements of the service. For the service provider, this is the basis to determine what service should be created. Whether the service is specified to conform correctly to what the customer wants is a validity question. For example, taking one's car to the garage involves an agreement on when to deliver it, what should be checked and repaired, one's permission for a maximum repair price, and collection of the repaired car. Also, negotiations may take place before the service, for instance, when taking a taxi in Guatemala City. For some services, the specification and planning process may itself be enjoyable for customers. An example would be planning a vacation to Guatemala. People may enjoy planning the trip, reading books about the Maya culture, and imagining visiting the Maya temple of Tikal; these are all part of the input (specification) stage.

In the throughput stage, the service is created. This is a stage in which, again, both parties (service providers and customers) may take part. Services differ in the degree of contribution and control of the two parties with regard to the service process. For a pleasant dinner at a restaurant, both the restaurant staff (the owner, the cook, waiters) and

the guest have to cooperate in order to create a satisfying dining experience. Whether the service is realized according to service specifications is a reliability question. The vacation trip, for example, may be both enjoyable and tiring. The temple may be more impressive than expected, but the weather may be hot and humid. There is always a chance that an actual vacation is less enjoyable than the fantasies before the trip and the evaluation and memory afterwards.

In the output stage, the customer perceives the benefits of the service. In the case of car repair, the result is a well-functioning vehicle. The output of the trip to Guatemala is the personal experience and memory of having been there, having seen the temple of Tikal, the pictures and videos. If the service outcome is considered to be inadequate by the customer or by the service provider, the service production may be extended and corrected to reach adequate outcomes. Many repair services have a trial character. The repair activities are continued until the product works again satisfactorily. This is the feedback loop of Figure 1. Service recovery is another example of a feedback from evaluation to input and throughput. Inadequate service should preferably be recovered during the throughput stage and not afterwards, because recovery afterwards cannot restore the spoiled experience even if one receives a monetary compensation.

Service Validity

The validity question is: Is the service specified and designed to accurately reflect what the customer wants. In service markets, customers contribute to a service by providing information about the desired requirements. Did the customer correctly explain what he or she wanted? Did the service provider understand and correctly interpret the requirements and queries of the customer? Customers may perceive the service provider more positively if the provider listens and uses the information given by the customer.

Several types of services exist. *Standard services* (service commodities) do not allow for negotiation and customization. The specification is made by the service provider and the customer may take it or leave it. Standard services are developed for more-or-less homogeneous market segments with assumed similar preferences. Because of standardization, production costs of these services are low. On the other hand, the validity of standard services may be low, as these may not optimally cater to the requirements of customers. With a trend toward more individualization, standard services (where customers are numbers, and the numbers are processed) may become less well accepted.

Self-service settings have a standard specification, and customers perform their own service realization. In this case, the service specifications pertain to the physical layout, the preselection of the product assortment, and other conditions that help customers get what they want.

In *customized services* the specification is tailored to the customer. The validity of these services is generally high, if the customer and the service provider agree on the service specification.

Service Reliability

Service throughputs (processes) are focused on the realization of the specified service. To address the question of quality of service realization, the term *service reliability* is used. High service reliability is a flawless performance of the prespecified service. The reliability question is: Is the specified service correctly provided? Service throughput involves the service encounter, human contact, operations, time, and environmental factors, such as the presence of other customers during the service performance. In the throughput stage, customers may be active co-producers, as in the case of a vacation trip, or passive persons being served, as in the case of a beauty parlor.

The customer in a supermarket has no immediate control over the service specification but only over the realization. The retailer selected an assortment of products, categorized the products in the store, and created a store layout. In the realization stage, customers have to learn the store's specification, categorization of products, and store layout to do the job of selecting and picking products. Customers perceive do-it-yourself store services as offering no control over specification, but only over realization. This means that customers have to accept the validity of the service (store formula) as it is presented. In the long term and at an aggregate level, customers' supermarket purchasing behavior has, however, feedback effects on the service specification.

The Service Validity and Reliability Interface

By distinguishing low and high levels of validity and reliability, four cases may be obtained (see Table 1). In the low-validity case, there is inadequate knowledge of customer wants and requirements, and there may be incompetence in translating customer requirements into service

Table 1. Validity and Reliability of Services.

	Low reliability	High reliability
Low validity	Indifference: We don't care.	Friendly zoo: We care but we don't know what you want.
High validity	Promises, promises: We know what you want, but we cannot deliver.	Balanced: We care and we know what you want.

Note: We is the service provider.

terms. In the low-reliability case, the service providers are basically ill-equipped to deliver the service according to specifications. When both low validity and low reliability combine, the service firm is in an indifference mode, and is most likely on a path of demise. Low validity does not necessarily mean that employees are uncaring or unfriendly. The employees may genuinely try to do a good job, achieving high reliability. This is the case marked “friendly zoo.” In essence, the service providers here are friendly but ineffective. In the high validity but low reliability case (“promises, promises”), there is adequate knowledge of the customer wants, leading to appealing promises, but incapacity to deliver on those promises. Finally, of course, there is the “balanced” case, where both high validity and high reliability ensure that customers get what they want. Service validity and reliability are of the utmost importance for service quality, customer satisfaction and, in the end, behavioral responses such as customer loyalty and retention.

Contribution and Control of the Service Process

The concept of control is very relevant in the service context. Control is the degree of power and influence on the service specification, realization, and outcome. According to the relative contribution, control, and dominance of the service by each party, services can be characterized on a continuum from customer-controlled to service-provider-controlled services. An example of the former is a taxi ride, and of the latter, public transportation by bus or train. Both parties, service providers and customers, make some contribution to and have control over the service specification and realization. Concerning the service provider, the service organization and the contact service person may be distinguished. The organization may provide a service architecture; that is, a system concerned with the creation, facilitation, and delivery of services. The service architecture, including equipment, facilities, and organization, is a provision to facilitate the service process. For example, a restaurant with a congenial ambiance, well-chosen interior, music, and comfortable seating facilitates a different service in contrast to a restaurant with formica tables, linoleum floors, and strip lighting. The organization also provides a management structure, marketing research about consumer preferences and satisfaction, specifications as to how service providers should perform the service and deal with customers, and other directives. In the SERVQUAL model (Parasuraman et al., 1988), a gap is recognized between what management considers to be the correct service specification and how the service is actually performed by the contact persons.

Freedom and perceived control of the service provider and the customer may be restricted by rules and regulations, either by the organization itself or by the government. These regulations place restrictions on how the service should be performed. In these cases, neither

the customer nor the service provider has much control over the performance of the service.

CUSTOMER EVALUATION OF THE SERVICE EXPERIENCE

The customer service experience is a complex phenomenon. Its evaluation is also a complex process, and it depends on the degree of participation and control the customer perceives and on other psychological processes. To understand these processes, the discussion is organized around equity, expectation–realization discrepancy, and attribution theory, applying these to customer evaluation, control, and service validity and reliability.

Equity Theory

Equity theory deals with the question of how people judge what is fair or deserved, and how such judgments affect behavior (Adams, 1965). The theory predicts that in exchange situations, outcomes and inputs of both parties are compared. Customers attempt to evaluate whether the ratio of one's own outcomes to inputs is equal to the ratio of relevant others, in this case the service provider and/or other customers. A service exchange is equitable if the ratio of outcomes to inputs is about equal for all parties. Talking to one's neighbor in an airplane may lead to feelings of inequity, for example, if one discovers that the other passenger paid less for the same service. Customer dissatisfaction ensues when inequity is perceived.

It is likely that equity comparisons are being made at the service specification stage, that is, at the time of the decision to buy the service. Later in the process, the service reliability may be checked as to whether the equitable specification has been reached or will be reached. In situations of inequity, customers will attempt to establish equity by either demanding higher levels of service outcome, or changing their own inputs, that is, diminishing the contribution to the service process or by paying less. With large inequity, customers might withdraw from the service exchange, or, eventually, get angry and wish to hurt the reputation of the service provider. The service provider may restore equity by offering an additional service (a better outcome) or reducing the price (less input for the customer). The customer may also restore equity by tipping the service provider after a satisfactory service outcome or requesting a price discount after an unsatisfactory one. If customers participate in specification and realization processes, they may partially hold their own participation accountable for the input–output ratio. Moreover, they will have opportunities to modify this ratio toward better equity.

Proposition 1: Customers perceiving inequity of the service exchange try to restore equity by requiring more/better outcomes or by reducing their inputs.

Discrepancy Models

Consumers may perceive a discrepancy (gap) between their expectations and the outcome of the service. Expectations may be either normative (what should happen) or predictive (what is likely to happen). According to consumer-satisfaction models (Oliver, 1980), a positive gap (the service realization is better than expected) results in satisfaction, whereas a negative gap results in dissatisfaction. However, in service exchanges, expectations and realizations, and thus gaps, are often unstable. After a satisfactory service realization, the predictive expectation level for the next service will be revised upward (preference shift). On the flip side, after an unsatisfactory experience, the predictive expectation level might shift downward.

SERVQUAL also considers customers' own contributions to the service (Zeithaml, Berry, & Parasuraman, 1993). With tailor-made services, customers have considerable input in the service specification and realization. When customers are actively involved in the service inputs and process, they may try to maximize their own outcomes or may allow the service provider to perform to one's benefits, in effect reducing a possibly negative gap.

Service realizations are related to service reliability. The gap between expectations (specification) and realization may be interpreted as a lack of service reliability.

Proposition 2: Customers who participate in the specification and realization of the service are likely to perceive a less negative discrepancy between expectation and realization, and thus greater satisfaction than customers who do not participate.

Perceived Control

Perceived control is the degree to which customers or service providers perceive that they are able to influence the service process and outcome. Perceived control is an important factor in the specification and realization, and thus in the validity and reliability, of services. Hui and Bateson (1991) describe perceived control as a promising concept in understanding and predicting service outcomes. The automatic teller machine (ATM) is an example of a service in which the specification (input stage) is controlled by the service provider. The service provider defines the options and sequence of the service. Customers only have some control over the service realization when they use the ATM. In

Table 2. Types of Power and Control of the Service Provider and the Customer.

Type of Power	Service Provider	Customer
1. Expertise	Professional knowledge	Problem knowledge
2. Skills, facilities	Professional skills, facilities	Lack of skills and facilities
3. To give rewards	Service quality	Payment, tip
4. To provide information	Problem definition/solution	Problem definition
5. Reference	Interaction, network	Interaction
6. Legitimation	Security, safeguarding	Order, payment
7. Coercion	Lawsuit, regulations	Lawsuit

contrast, car repair is an example of a service in which customers have control in the input stage by specifying the problem they want solved. The service provider then controls the throughput stage.

Both parties, the service provider and the customer, have different resources that give them power to control. Obviously, the customer has the power to engage or not to engage in the service depending on whether the service specification is to the customer's desire. In Table 2, seven sources of power are distinguished, adapted from French and Raven (1959). These are (1) expert power resulting from useful knowledge and expertise, for example, physician or accountant; (2) power resulting from useful skills and facilities, for example, car-repair services; (3) reward power resulting from providing a good quality service and problem solution; (4) information power resulting from access to relevant information, for example, CIA and FBI; (5) referent power resulting from social networks and attractiveness of interaction with the service provider or other customers, for example, entertainment services; (6) legitimate power resulting from position in the organization, for example, accounting service to check the annual report, and (7) coercive power resulting from ability to invoke sanctions, for example, the Internal Revenue Service imposing penalties on defaulting taxpayers. As Table 2 shows, both parties can exercise their respective powers.

These power sources enable different forms of control:

1. *Specification control* is the power to make and to modify the specification of the service. The customer wants to have her steak medium rare. In a study of restaurant service (Whyte, 1949), waitresses played a dominant role in serving regular customers, taking initiative to control customers' behavior by suggesting menu items that were easy to get from the kitchen. Specification control is enabled by expert power, information, skills, rewards, and coercion.
2. *Realization control* is the power over the service realization. If customers contribute little to the realization of the service, they leave more room for control by the service provider. Realization control is enabled by expert power, skills, and rewards.

3. *Cognitive control* is the processing of information in such a way as to reduce stress. It is a kind of appraisal, redefinition, and re-specification in order to make the service appear more attractive (Averill, 1973). Dissonance reduction, biased information processing, biased causal attribution, selective perception, and selective retention are examples of regaining cognitive control over the situation. Customers might redefine the situation in such a way as not to admit that they are dissatisfied with the outcome of the service (e.g., upon being ignored by a waiter, a customer might attribute it to the waiter being rushed and hassled rather than to the waiter's dislike for oneself as a customer). It is clear that this type of control may be biased and misleading to oneself. Cognitive control is enabled by information power and legitimate power.
4. *Retrospective control* is the hindsight belief that one could have forestalled the service failure that had such negative consequences. Retrospective control belongs to the realm of fantasy and superstition.
5. *Third-party control* is reliance on a third party (Levenson, 1974). Consumers may rely on consumer organizations or governmental agencies to acquire more power and control vis-à-vis service providers. In the same way, service providers may rely on industry regulations.

It is obvious that cognitive and retrospective control may be based on illusions of control. It is self-enhancing to believe that one exercises control over the (service) situation. In Rotter's (1966) concept of locus of control, internal versus external locus of control are distinguished. Internal control means that persons perceive rewards as contingent on their own behavior. Externals perceive rewards as being independent of their own behavior. Externals are more fatalistic in their perceptions, and they create their own environment and future only to a low degree. With regard to services, internals actively seek to exercise control by specification and contribution to realization of the service. Externals are likely to behave more as the victims of the service situation. They hope for the best outcome, but perceive fewer ways to affect this by specification and contribution to the realization of the service.

Proposition 3(a): With lack of perceived control over the service process, internals try to restore control in order to gain the desired outcomes.

Proposition 3(b): With lack of perceived control over the service process, externals do not try to restore control. They are more likely not to get the desired outcomes.

People experiencing lack of control may react in several ways. These

reactions include (Fiske & Taylor, 1984) information seeking, increased reactivity to stress, reactance, and/or helplessness. Applied to services, lack of customer (perceived) control may cause either attempts to restore control by information seeking or by regaining freedom, or resignation to lack of control, such as accepting helplessness. Internals try to restore control, whereas externals may resign. Other negative consequences of lack of service control are anger and stress.

Attribution of Effects

Attribution theory (Kelley, 1973) is concerned with how people explain events and behaviors, and assign causes, and thus responsibility, to various outcomes. Sometimes customers have ample opportunity to make a thorough analysis of the service outcome by using background information, but at other times they will have to rely on one single observation or cue in order to come to a causal attribution of a good or poor service performance. Kelley (1973) proposed that when subjects have more information than the mere facts to be observed during the event, attribution of the cause(s) of the event will follow the *covariation principle*. From a set of possible causes, the cause that covaries with the event is selected as the most plausible explanation. Generally, there are three targets of causal attribution of an event: The service provider, the customer, and circumstances. For example, a patient may attribute the cause of a long wait at the doctor's office to either the doctor's generally low concern for the patient's time, or to an unexpected emergency that day, or to oneself rightly being meted out the inferior service for not having paid the doctor's last bill promptly.

The following criteria are used in causal attribution: Information about the *distinctiveness* of the act (Am I the only patient who has to wait or are other patients treated in a similar way?), information about the *consistency* of the act (Is this delay incidental, or does it always happen with this doctor?), and information about the *consensus* with respect to the act: (Is it only this physician (hospital) where patients are delayed for over 45 minutes, or is it standard procedure in all hospital clinics?). These criteria, in combination, lead to eight options of a joint attribution effect (Van Raaij, 1986). (See Table 3) If, as is the case in Option A, distinctiveness is low (the physician treats all patients equally), consistency is high (this doctor's waiting room is frequently filled with waiting patients), and consensus is low (other doctors do not seem to have long queues in their waiting room), one may be inclined to blame the doctor for the delay.

Only three combinations provide a simple attribution, namely, options A, B, and C. In option D, the attribution cannot be determined; it is either to the service provider, to the customer, or to both. In options E, F, and G, the attribution is to an interaction of service provider, customer, or circumstances. In option H, an interaction of all three tar-

Table 3. Causal Attributions of Eight Combinations of the Criteria.

Distinctiveness		Consistency	Consensus	Frequent Type of Attribution
A	Low	High	Low	Service provider
B	High	High	High	Customer
C	Low	Low	High	Circumstances
D	Low	High	High	Service provider, customer or both
E	High	High	Low	Service provider * customer
F	High	Low	High	Customer * circumstances
G	Low	Low	Low	Service provider * circumstances
H	High	Low	Low	Service provider * customer * circumstances

gets receives the blame. In general, attribution to the service provider is frequent for low distinctiveness and low consensus. Attribution to the customer is frequent for high distinctiveness and high consensus. Circumstantial attribution is frequent for low consistency. All low-consistency options are difficult to interpret, because they contain a circumstantial attribution.

Proposition 4: With an unfavorable service outcome, service providers tend to give more circumstantial attributions, whereas customers give more attributions to the service provider.

Proposition 5(a): With low distinctiveness and/or low consensus, causal attribution of service outcomes is often to the service provider.

Proposition 5(b): With high distinctiveness and/or high consensus, causal attribution of service outcomes is often to the customer.

Self-Perception

Self-perception theory is about explaining one's own behavior afterwards (Bem, 1967). It is about finding the causes, reasons, justifications, and legitimations of one's behavior. In the example above, having to wait is a client input to the medical service. The medical checkup is the major part of the service performance. Two attribution events are likely to take place with clients. The first is about the waiting time (input). The second is about the medical checkup itself (throughput). Clients may give a negative evaluation of the wait but may be positive about the checkup. They may ask themselves: "Why did I wait so long?" and

answer “The medical checkup must be very good, otherwise I would not have waited so long.”

Evaluation of input and outcome are thus interdependent. Attribution processes need to be combined to understand outcome evaluations. According to self-perception theory, the own input in the specification stage may be a justification for the perceived validity of the service. If customers spend a great deal of time on specification, they must have a need and (revealed) preference for these services. In a similar way, the service reliability and outcome may be a justification for one’s input efforts during the throughput stage. If customers spend much money, time, and effort to obtain a service, it must, in their perception, be a valuable service.

Proposition 6: In hindsight, if customers spend efforts in service specification, they evaluate the validity of the specified service more positively.

Proposition 7: In hindsight, if customers spend efforts at the realization stage, they evaluate service reliability and outcome more positively, unless the service quality is vividly short of predictive expectations.

For services with more customer control over the specification (input) and realization (throughput), internal attributions are more likely, because customers perceive themselves also to be responsible as co-producers of the service. However, in these service situations, involved customers may provide quicker feedback to the service provider, if the service outcome threatens to fall short of expectations or if there is disagreement between the customer and the service provider. This means that involved customers, who did what they were able to, but disagreed with the service provider, attribute failure more easily to the service provider. Less-involved consumers do not try to influence the service outcome, and thus attribute failure less easily to the service provider.

Proposition 8(a): Under high involvement and disagreement, customers are more likely to attribute service failure to the service provider.

Proposition 8(b): Under low involvement, customers are less likely to attribute service failure to the service provider.

Biases and Distortions in Attribution

Causal attributions are often self-serving, biased, and sometimes even self-deceiving. More than 50 years ago, Heider (1944) noted that people are inclined to make person attributions rather than situation attribu-

tions. In attribution research in the 1970s, this phenomenon was studied extensively and termed the *fundamental attribution error* (Fiske & Taylor, 1984; Hewstone, 1989). For service management, the propensity to underestimate the influence of situations and to exaggerate the active human control factor in attribution is extremely relevant. For services, customer attribution processes involve three stages: categorization, characterization, and correction. These occur both in the specification (validity) and realization (reliability) stages of service production, as illustrated below.

In the specification (validity) stage:

1. *Categorization*: “Did the service provider understand my problem?” This is a customer attribution as to who, the service provider or the customer, is responsible for the validity of the service.
2. *Characterization*: “Which disposition might be responsible for this? Is the service provider lazy or incompetent?” This is a customer attribution to more-or-less permanent characteristics of the service provider.
3. *Correction*: “Are there any other (situational) reasons or explanations for the misunderstanding, such as many other customers waiting?” The characterization inference is an anchor from which corrections are made by the customer.

In the realization (reliability) stage:

1. *Categorization*: “What is the service provider doing? Is he or she causing the delay?” This is a customer attribution as to who contributed to the delay, the service provider or the customer.
2. *Characterization*: “Which disposition might be responsible for this? Is the service provider indolent or inefficient?” This is a customer attribution to more-or-less permanent characteristics of the service provider.
3. *Correction*: “Are there any other (situational) reasons or explanations for the delay?” Again, the characterization inference is an anchor from which corrections are made by the customer.

According to Gilbert, Pelham, and Krull (1988), the correction stage requires more cognitive effort and is more susceptible to perceptual distortions than the other two stages. Inappropriate corrections could be made. Thus, attributions to personal characteristics will often dominate.

Proposition 9: In evaluations of service failure, customers tend to overestimate the control of the service provider and underestimate the influence of situations.

In addition to this, Jones and Nisbett (1972) proposed that there are systematic differences between *actors* and *observers* in their interpretation of (causes of) behavior. Actors are more inclined to attribute their behavior to circumstances, whereas observers tend to attribute the same behavior to stable characteristics of the actor. In other words, the fundamental attribution error (which works for attribution to others) does not seem to work in the case of self-attributions. In service situations, this means that there is a large gap in the provider's and customer's attributions. For poor service performance (e.g., long waiting times), customers tend to blame the service provider. If there is evidence of similar failures in the past, the attribution is to more-or-less permanent characteristics of the service provider. Service providers, on the other hand, may be more focused on incidental, temporary, and circumstantial reasons for the delay, and are thus less inclined to perceive the failure as a permanent personal characteristic.

Proposition 10: In evaluations of service failure, service providers tend to overestimate the influence of situations and thus underestimate their own control.

Jones and Nisbett (1972) suggested that differences in attribution between actors and observers may be partly explained by the fact that actors (service employees) feel a need to justify their behavior, and therefore are motivationally biased. Equally important, however, is the information gap: Observers (customers) lack the background information about what it takes to produce the service.

A related explanation concerns the difference in (visual) perspective between the actor and the observer. In service situations, for example, the observer's attention may be strongly focused on and fully directed at the acts of the service provider, whereas the service provider by position carries a broader scope. A client may, for instance, only see (and feel) the physical acts of a dentist and ignore the expertise, specifications, and longitudinal perspective of the treatment plan.

In many service situations, the service provider is the actor, whereas the customer is the observer. In other service situations, the customer is a co-actor in the service production. This leads to the following proposition.

Proposition 11: If the customer is a co-actor of the service production, the customer will take more of an actor perspective, and thus attribute service outcomes more to circumstances than to personal characteristics of the service provider.

The actor–observer discussion is rather in either/or terms; that is, only one party seems to be responsible for the service performance and outcome. In many cases, however, both parties, the service provider and

the customer, contribute to the service outcome. Each party may over- or underestimate its own contribution to the outcome. This contribution is often overestimated (Ross & Sicoly, 1979). According to attribution theory, it will especially be overestimated with a favorable outcome, and underestimated with an unfavorable one. This over- and underestimation is an example of a self-serving perceptual bias (Miller & Ross, 1975; Bradley, 1978; Mullen & Riordan, 1988). Self-serving biases are ego enhancing and bolster self-esteem, but they are also self-deceiving and illusionary. People are willing to accept responsibility for favorable outcomes (a self-enhancing bias), but tend to blame unfavorable outcomes on the other party or circumstances.

Proposition 12: As a poor service outcome is unfavorable for both the customer and the service provider, they will both blame this on the other party or on circumstances, especially if the customer is a co-actor in the service production.

In a study on customer reactions to queues, Clemmer and Schneider (1989) proposed that customers' reactions merely depend on how they judge the service provider's intentions. The service provider who makes a visible effort to speed up service is less likely to be held responsible than the service provider who is perceived to be making no effort at adjusting the service process to changing conditions in customer demand. In the latter type of service situation, customers will probably not search for alternative explanations, for example, other external factors, such as the small size of the service location, or other customers who dawdle and slow down the speed of service. This is simply because there is already an adequate attribution: The service provider is not fit for the task. In the same situation, the service provider may come to similar external attributions, for example, the customer should have tried to avoid peak hours or management should have opened more counters or hired more personnel.

On the other hand, when there are no queues and service is not delayed, the self-enhancing bias would predict that customers are more inclined to internal attributions ("How smart I am to avoid peak hours") or feel no urge to make any attribution at all. Service providers also make more internal attributions: "It is really to my credit that there are no delays."

Proposition 13: If service outcome is poor, and there is no visible service provider effort to improve service realization, the poor service is attributed to the provider rather than to the service organization or to circumstances.

Consequences of Attribution Processes

With regard to services, outcomes of attribution processes appear to have at least two consequences (Weiner, 1986). In a more immediate sense, the attributional appraisal of a given event may strongly determine the emotional reaction toward the service outcome. Customers' evaluations and appraisals of the service not only elicit positive or negative emotions, but may also distort the expectations one holds about future encounters with the service provider. As regards future expectations, according to Weiner (1986), one should be aware of a second dimension of judgment (besides *locus* of attribution: internal vs. external control), namely, the perception of *stability* in the cause of events. When, for example, a delay is attributed to a stable cause (e.g., "They don't have enough capacity for a proper service"), customers would probably expect a similar delay next time. Bitner (1990) studied the effects of employee behavior and physical surroundings at the service encounter, and found that, with service failure, customers were less dissatisfied if the failure could be blamed on the employee rather than on the organization. Employee behavior is perceived as being less stable (next time another employee may perform the service) than the organization.

From a study by Forsyth and MacMillan (1981), one learns that yet another judgmental dimension should be taken into account: *controllability* of the outcome. In this study, it was shown that perception of control over the outcome by an actor strongly affects future expectations. These findings imply that a great deal of the variance with respect to future expectations may stem from a combined appraisal of locus and controllability. If customers attribute a disappointing service experience to an external, uncontrollable cause, they will probably expect a similar experience again next time, whereas the attribution of such performance to either an internal or external but controllable cause will probably not lead to such expectations.

An application of these three dimensions is the study by Folkes (1984) on consumer reactions to product failures. When product failure is firm related, consumers feel that they deserve a refund and an apology. When product failure is also under the control of the firm, consumers feel angry and desire to hurt the firm's business. In a similar vein, one may expect that if negative service outcomes are attributed to the service provider, and if these outcomes are perceived to be controllable by the service provider, customers may get angry and require compensation.

The three dimensions provide eight reasons and types of attributions for service outcome (see Table 4). Note that the attributions are both to the service specification (A, B, E, F; controllable factors) and to the service realization (C, D, G, H; uncontrollable factors). The strongest attribution to the service provider will take place in Situation A and less in Situation B. In Situations C and D, the service provider is excused

Table 4. Attributions of Negative Service Outcomes to Locus, Stability, and Control.

	Stable	Unstable
Service provider		
Controllable	A: The service provider knows that the service is ineffective, but hides this from the customer. <i>pp: very high</i>	B: The service provider forgot to bring the correct equipment, but nevertheless tries to do the job. <i>pp: high</i>
Uncontrollable	C: The service provider uses the wrong ingredients, because the package was labeled incorrectly. <i>pp: low</i>	D: Accidentally, the service provider took the wrong ingredient. <i>pp: very low</i>
Customer		
Controllable	E: The customer lacks the ability to explain the problem to the service provider. <i>pp: very high</i>	F: The customer forgot to explain the problem to the service provider. <i>pp: high</i>
Uncontrollable	G: The customer discovers during a trip in Africa that she cannot stand the heat and humidity. <i>pp: low</i>	H: The customer discovers during a trip in Africa that her medicine interferes with the heat and humidity. <i>pp: very low</i>

Note: pp: predictive power.

for the negative service outcomes. The strongest attribution to oneself (i.e., the customer) will take place in Situation E and less in Situation F. In Situations G and H, the customer is excused for the negative service outcomes.

Controllable and stable attributions are more predictive for future service outcomes than uncontrollable and unstable attributions. Controllability is more predictive than stability, because it is more related to expertise and power of the service provider or the customer. Options B and F are thus more predictive than options C and G, respectively. In Table 4, the predictive power of the eight options is indicated. With high predictive power, future behavioral responses such as repeat buying and loyalty are stronger than with low predictive power.

Proposition 14(a): Service outcomes shape future expectations of the service, but this effect is mediated by the nature (controllability and stability of the cause) of the outcome attributions.

Proposition 14(b): If the attribution of the poor outcome is made to a service-provider factor (external cause) under

the service provider's control and stable, future service expectations are lowered.

Proposition 14(c): If poor outcome is attributed to an external cause that is unstable and uncontrollable, future service expectations are preserved.

Proposition 14(d): Controllable and stable causes enable the highest predictability of future service outcomes.

Proposition 14(e): Controllable and stable causes (high predictability) signal future loyalty for positive outcomes, and lack of it for negative outcomes.

MANAGERIAL IMPLICATIONS

The managerial implications of this article relate to recommendations as to how to improve the validity and reliability of services and thus service outcome and satisfaction, and how to communicate with customers about positive and negative service outcomes.

The decision to offer standard (commodity) services without customer input on specification, but for a lower price, is a strategic decision of company positioning and market potential for a given service. In marketing communication to consumers, the standard service could be positioned as having attractive benefits in its own right, although these benefits are not tailor made. Attractiveness and expertise of the service provider are also major arguments to convince consumers of the qualities of the services.

For tailor-made services, service providers should make service specifications in cooperation with customers. Customer contribution, effort, and control not only increase service validity and reliability, but also support internal attributions of service outcomes. Customer commitment implies shared responsibility for the service outcomes. In case of service failures, it is then less likely that this failure will be blamed completely on the service provider.

Note, however, that customer involvement might mean that customers try to direct the service process and to influence the service outcome into their preferred direction. If the service outcome is nevertheless a failure, they will blame the service provider even more strongly. For service managers this means that customer involvement is a good thing as long as there is agreement between the service provider and the customer about the validity and reliability of the service. Customer involvement might have a negative effect if there is disagreement between the two parties.

The validity and reliability of all services can be improved on the basis

of customer research and by heeding customer comments and complaints. The validity and reliability of tailor-made (customized) services can also be improved through more cooperation at the specification stage.

Service providers should clearly communicate invisible and hidden service components, such as the planning, preparation, and organization of a specific service, treatment plan, and research for a specific service. Service managers must communicate not only that “we care for you” but also that “we prepare for you.” The “we prepare for you” communication may tip the balance toward more perceived equity of the service exchange.

Many service failures are caused by situational or third-party factors. For instance, the delayed departure of a flight can often be blamed on traffic control rather than on the airline. Customer perceptions of service reliability are hurt less if failures are blamed on “third parties.” It is good practice, therefore, to explain the cause of a delay to passengers waiting in the lounge or the airplane. But management should be aware of the attributions passengers will make. These attributions will be unfavorable to the company if the company is perceived as having control over the causes of service failure.

CONCLUSION

For most services, both customers and service providers exert control over the service specification and validity. The degree of control determines the evaluation of the service outcome. For customers, this evaluation is often a biased process, for example, attributing failures to the service provider and claiming successes for oneself. Important factors in the service evaluation are perceived control, equity, expectation–realization discrepancy, causal attribution, and self-perception. In 14 propositions the main conclusions of the evaluation processes are advanced.

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