

Improving Service Quality: SERVQUAL Instrumentation for Measuring Customer Expectations and Perceptions

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บทคัดย่อ

คุณภาพการบริการ คือความแตกต่างระหว่างความคาดหวังของลูกค้าที่มีต่อการบริการและการรับรู้ที่มีต่อการบริการจริง ซึ่งวัดโดยเครื่องมือ SERVQUAL มี 5 ด้านหลักคือ ความน่าเชื่อถือ การตอบสนอง ความไว้วางใจ ความเอาใจใส่ และรูปลักษณ์ทางกายภาพ ในอุตสาหกรรมบริการ ดังนั้นการวัดคุณภาพการบริการเป็นขั้นตอนแรกที่เราเข้าใจถึงศักยภาพของธุรกิจตลอดจนความเป็นเลิศของการส่งมอบคุณภาพการบริการ เนื่องจากในอุตสาหกรรมบริการนั้นมีลักษณะที่มีการแข่งขันสูงและมีการเปลี่ยนแปลงอยู่ตลอดเวลา การพัฒนาคุณภาพการบริการก็เป็นส่วนที่สำคัญต่อองค์กรของธุรกิจและเศรษฐกิจโลกเช่นกัน

Abstract

Service quality is the result of the discrepancy between customer's expectations on services and their perceptions on the services actually received; measured by the SERVQUAL instrumentation in five dimensions as reliability, responsiveness, assurance, empathy, and tangibles for global service industry. Therefore, service quality measurement is considered the first steps to understand the achievement of business performance together with the excellence of the delivery of service quality. Since in service industry, there are increasing competition and constant change, service quality improvement becomes significant to business organizations and the world economy as well.

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Introduction

Service industries continue to grow in significant role in the overall Thai economy such as airline, banking, communications, consulting, education, hospital, hotel, insurance, restaurants, retailing, and transportation industry while at the same time service quality is generally perceived to be declining. Most customer are especially frustrated by unacceptable delays, mistakes, rudeness, incompetent service, defective materials, and poor workmanship. This has led to increased customers dissatisfaction (Oliver, 1980). Demanding customers will not be satisfied unless they are treated as members, guests, or associated who are delighted with the service received and whose repeat business valued. Therefore, continuously improving customer driven service quality has become a top priority - if not an obsession - for all types of organizations. Lewis (1993) stated that successful service quality leads to decreased costs and increased productivity and sale; market shares and profitability; and stronger business performance. High service quality would also result in higher customer satisfaction with the product or service.

Theoretical Foundations

The disconfirmation paradigm has been studied in some detail (Oliver, 1977a, b, 1980; Oliver & DeSarbo, 1988) showing how discrepancies between prior expectations and actual perceptions of performance arise (Churchill & Surprenant, 1982; Oliver, 1980; Tse & Wilton, 1988). The majority of studies on the disconfirmation paradigm holds that satisfaction is related to the size and direction of the disconfirmation, based on a person's initial expectations (Churchill & Surprenant, 1982; Oliver, 1977b, 1980). Grönroos (1983a) later applied the disconfirmation paradigm to

an evaluation process where customers compare their expectations of service with their perceptions of the service they received.

A parallel research stream in service quality involves the gap model that reveals discrepancies between perceptions and expectations (Parasuraman, Zeithaml, & Berry, 1985, 1988). Furthermore, Parasuraman, Zeithaml, and Berry (1994a, b) revised and refined the original SERVQUAL instrument to evolve their conceptualization of expectations with desired and adequate expectations at either-end and a zone of tolerance in between. (Zeithaml, Berry, and Parasuraman, 1993). They developed the conceptualization model of customers' service expectations in their three-column format. Therefore, the SERVQUAL was modified in order to account for the discrepancy between perceived service and desired service - defined as measure of service superiority (MSS) and also the discrepancy between perceived service and adequate service - defined as measure of service adequate (MSA).

Perceived Quality Model

Grönroos (1983b) was the first researcher to use a traditional Customer Satisfaction/Dissatisfaction (CS/D) model to explain service quality satisfaction. Grönroos (1983a) defined perceived service quality as the "outcome of an evaluation process where customers compare their expectations with the service they perceive to have received." Grönroos (1983a) also defined and developed a model of perceived quality with two distinct dimensions, technical quality and functional quality. The technical dimension incorporates what the consumer receives, while the functional dimension focuses on how the service is delivered (Grönroos, 1983a). Difficulty arises in attempting to measure the

functional quality due to its inherent variation and elusiveness (Grönroos, 1983a; Webster, 1989).

Grönroos (1984) also suggests three dimensions of service quality, the technical quality, the function quality and the corporate image. The technical quality of the outcome of the service encounter i.e., what the customer receives. This can often be measured by the consumer in a rather objective manner.

The functional quality of the process itself, how is the service is provided. This concerns the psychological interaction between the buyer and seller and is perceived in a very subjective way and would include elements such as:

- (a) attitudes and behavior of employees;
- (b) interrelationships between employees and customers;
- (c) relationships between employees;
- (d) appearance and personality of service personnel;
- (e) service-mindedness of personnel;
- (f) accessibility of service to the customer; and
- (g) approachability of service personnel.

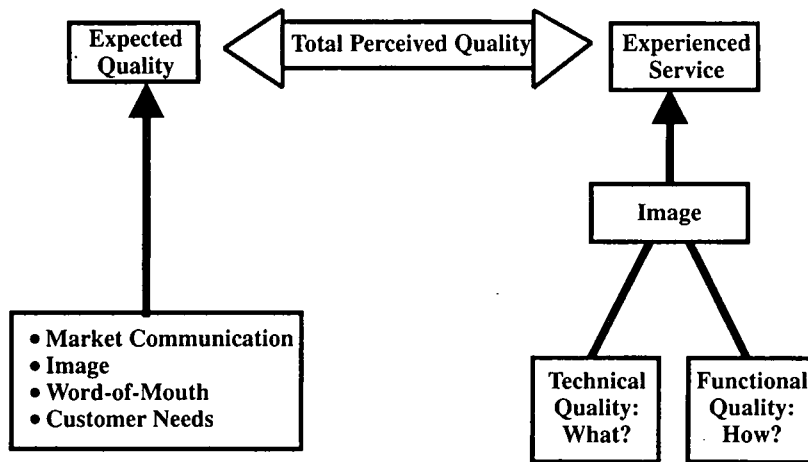
The corporate image dimension of quality, which is the result of how consumers perceive the firm, can be expected to be built up mainly by the technical and functional quality of its services, and will ultimately affect service perceptions.

Grönroos (1987) also developed the concept of a service product, the Service Offering, which is geared to the concept of

perceived service quality. This product is based on: (a) a basic service package e.g., what the customers will receive, a core service with facilitating and supporting services; and (b) an augmented service offering to include the service process and the interaction between customer and company. His study, he refers to the accessibility of the service (in terms of numbers of personnel, skills, etc.), the interactions between employees and customers and between physical resources and customers; and between systems and customer, and customers' perception in the process.

Expanding on his research, Grönroos (1988) modeled total perceived quality where perceived service quality is the disconfirmation between expected quality and experienced quality. He indicated that good perceived quality is obtained when the experienced quality meets the expectations of the customer. If the customer expectations are unrealistic, the total perceived quality will be low, even if they experienced acceptable quality factors such as market communication, corporate or local image, and positive word-of-mouth communication (see Figure 1). Most services are multidimensional bundles of core, facilitating, and supporting services (Grönroos, 1987). Perceived quality is different from objective or actual quality, representing a higher level abstraction rather than a specific attribute i.e., a global assessment that in some cases resembles attitude, and a judgment usually made within a consumer's evoked set (Zeithaml, 1988).

Figure 1
The Total Perceived Quality Model



Source: Grönroos, C. (1988). Service quality: The six criteria of good service quality. *Review of Business*, 8 (3), p. 10-12.

Service Quality Expectations

Empirical studies of service delivery expectations have been referred to as will expectations and should expectations (Boulding, Kalra, Staelin, & Zeithaml, 1996). Expectations are a pre-exchange norm used in disconfirmation evaluations (Oliver, 1977, 1980). Predictive expectations have been the dominant norm used for investigating outcome quality in customer satisfaction literature (Anderson, 1973; Churchill & Surprenant, 1982; Oliver, 1977a). Oliver (1981) indicated that predictive expectations are proposed to reflect the probability of desirable events occurring and of undesirable events not occurring. According to Zeithaml, Berry, and Parasuraman (1993), customer should (or desired service) expectations and will (or predicted service) expectations are based on past experience, word-of-mouth communications, and explicit and implicit service

promises made by the organization. In addition, the desired expectations should also be based on enduring service intensifiers and personal needs. Zeithaml, Berry, and Parasuraman (1993) also have proposed a third type of expectations, referred to as adequate service expectation, and defined as “the level of service the customer will accept.”

Parasuraman, Zeithaml, and Berry (1988) define expectations as “desires or wants of consumers i.e., what they feel a service provider *should offer* rather than *would offer*” (p.17). A significant expectation in customers’ evaluations of services has been acknowledged in the service quality literature as conceptualization of expectations (Bolton & Drew, 1991a, b; Boulding, et al., 1996; Brown & Swartz, 1989; Carman, 1990; Parasuraman, Berry, & Zeithaml, 1991; Parasuraman, Zeithaml, & Berry, 1985, 1988, 1994a, b;

Zeithaml, Berry, & Parasuraman, 1993). The original definition of expectation is somewhat vague in terms of the meaning of should. However, Parasuraman, Berry, and Zeithaml (1992) explain that the service expectations concept is intended to measure customers' normative expectations and that these expectations represent an ideal standard of performance.

Parasuraman, Berry, and Zeithaml (1991) suggest that, to keep customers' expectations from rising, performing the service properly the first time is critical. Customer expectations for the service are likely to rise when the service is not performed as promised. When service shortfalls occurs customers' tolerance zones are likely to shrink and their adequate and desired service levels are likely to rise for both the outcome and process dimensions of the recovery service. However, researchers generally agree that expectations serve as reference points in customers' assessment of performance (Boulding, et al, 1996; Carman, 1990; Cronin & Taylor, 1992; Teas, 1993). Carman (1990) proposed that expectations are important in determining satisfaction. Retailers can increase satisfaction by decreasing expectations. Carman (1990) also suggests that service quality expectations involve norms and that these norms are based on past experience.

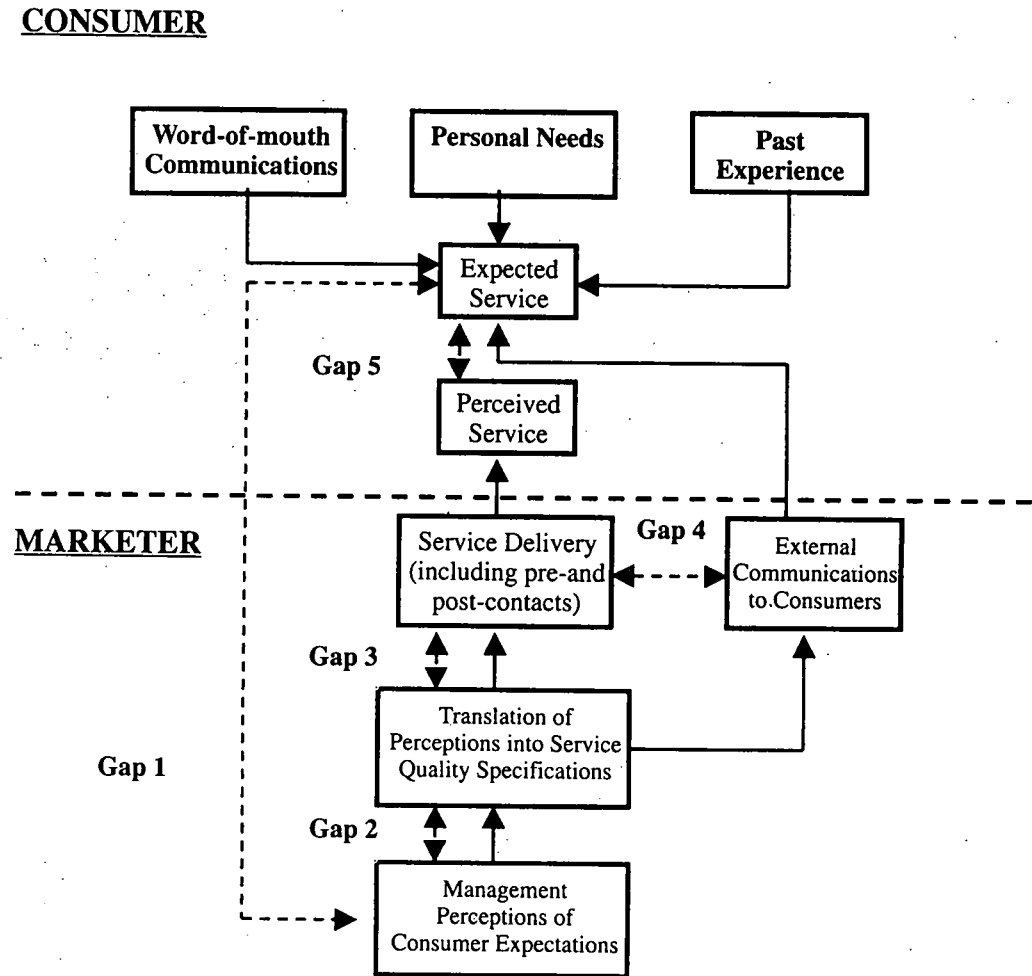
Conceptual Model of Service Quality

The conceptual model of service quality serves as a concise framework for understanding, measuring and improving service quality (Parasuraman, Zeithaml, and Berry, 1985, 1988, 1994a, b). They identified five discrepancy in the service delivery process (see Figure 2) affecting a consumer's evaluation of the service experience. The five dimensions of service quality gaps are as follows:

- **Gap 1:** The gap between consumer's expectations and those perceived by management to be the customer's expectations.
- **Gap 2:** The gap between management's perceptions of consumer expectations and the firm's service quality specifications.
- **Gap 3:** The gap between service quality specifications and service delivery.
- **Gap 4:** The service delivery, external communication gap.
- **Gap 5:** The perceived service quality gap, the difference between expected and perceived service (Parasuraman, Zeithaml, & Berry, 1985).

The gap analysis model is a management guide to determine for the service quality problem and discovering appropriate ways to close the gaps.

Figure 2
Conceptual Model of Service Quality



Source: Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implication for future research. *Journal of Marketing*, 49 (Fall), 41-50.

SERVQUAL's Five Dimensions

The service quality gap concept that has received the most attention is the connection between expectations and perceptions of service quality (gap 5). From this gap analysis, Parasuraman, Zeithaml, and Berry (1985) developed a perceived service quality model. The focus groups revealed that, regardless of the type of service, consumers used basically similar criteria in evaluating service quality. Parasuraman, Zeithaml, and Berry (1985) identified ten overall dimensions of service

quality in their research as follows: tangible, reliability, responsiveness, competence, courtesy, credibility, security, access, communication, and understanding.

After refining their research through rigorous field testing, Parasuraman, Zeithaml, and Berry (1988) refined their previous research, reducing the number of service quality determinants from ten to five through data reduction techniques. They developed and tested a multiple-item scale called SERVQUAL dimensions, for measuring the five dimensions

of service quality. All five dimensions of which are related to the importance of people in the service organization. The five remaining determinants are explained below:

1. Reliability: The ability to provide the promised service dependably and accurately. Reliability service performance is a customer expectation and means that the service is accomplished on time every time, in the same manner, and without errors.

2. Responsiveness: The willingness to help customers and provide prompt service. Keeping customers waiting, particularly for no apparent reason, creates unnecessary negative perceptions of quality. In the event of a service failure, the ability to recover quickly with professionalism can create very positive perceptions of quality.

3. Assurance: The knowledge and courtesy of employees and their ability to inspire trust and confidence. The assurance dimension includes competence to perform the service, politeness and respect for the customer, and effective communication with the customer.

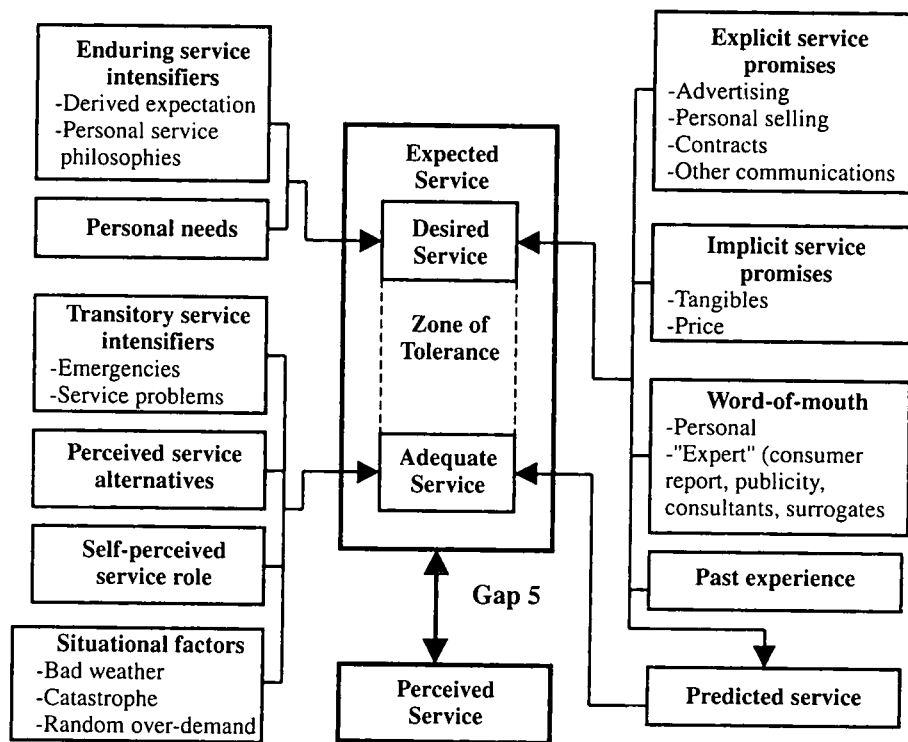
4. Empathy: The provision of caring, individualized attention the organization provides its customers. Empathy includes approachability, sense of security, and the effort to understand the customer's needs.

5. Tangibles: The appearance of physical facilities, equipment, personnel, and communication materials. The condition of the physical surroundings is tangible evidence of the care and attention to details exhibited by the service providers.

The Three-Column Format SERVQUAL Instrument

During the early 1990s, the original SERVQUAL instrument has been revised and refined. The original 22 items has been reduced to 21 items, excluding one item proving to be lacking discriminatory power (Parasuraman, Berry, & Zeithaml, 1991, 1993; Parasuraman, Zeithaml, and Berry, 1994a, b). In addition, they found that customers hold two different types of expectations about service (see Figure 3). The first, desired service, is the level of service representing a blend of what customers believe "can be" and "should be" provided. The second, adequate service, is the minimum level of service that customer will accept. Conceptually, the area between a customer's desired service level and adequate service level is referred to as the "zone of tolerance" that represents the range of service performance a customer would consider satisfactory (Parasuraman, Zeithaml, & Berry, 1994a, b). Therefore, the revised SERVQUAL's expectation component reflects the "desired service" and "adequate service" constructs. They modified SERVQUAL's structure to reflect the two comparison standards for customer expectations. The first comparison, the measure of service superiority (MSS), reflects a discrepancy between perceived service and desired service. The second comparison, the measure of service adequate (MSA), reflects the discrepancy between perceived service and adequate service.

Figure 3
Nature and Determinants of Customer Expectations of Service



Source: Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1993). More on improving service quality measurement. *Journal of Retailing*, 69 (Spring), 141-147.

After refined and tested SERVQUAL instrument alternative operational definitions of the zone of tolerance concept, Parasuraman, Zeithaml, & Berry (1994a, b) make use of this latter conceptualization of expectations in their three-column format SERVQUAL instrument. The three-column format generates separate rating of desired service level, adequate service level, and perceived service level with three identical, side-by-side, 9-point scales (see Appendix A). It requires computing the perceived-minus-desired and the perceived-minus-adequate differences to quantify MSS and MSA, respectively. They found to be the most reliable and valid that this provides management with significant diagnostic instrument.

Parasuraman, Zeithaml, and Berry (1994a, b) indicated that the two different levels of expectations of service quality are desired service level mean the of service performance you believe an excellent firm can and should deliver and adequate service level mean the minimum level of service performance you would consider acceptable.

In addition, several researchers (Brown, Churchill, & Peter, 1993; Carman, 1990; Cronin & Taylor, 1992) found that using only a battery of perception items provides superior measurement properties to expectations and perceptions methodology used in SERVQUAL instrument. The final product, SERVQUAL (Parasuraman, Zeithaml, & Berry, 1994a, b) is a concise multiple-item scale with good

reliability that can be used to understand better service expectations and customer perceptions. Another application of the instrument is its use in categorizing a firm's customers into several perceived-quality segments (such as high, medium, and low), on the basis of their analyzed demographic, psychographic and other profiles (Lewis & Mitchell, 1990).

Thus, the SERVQUAL instrument has been productively used for measuring service quality in many service organizations. It has served as the principal for measurement approaches used in published studies examining service quality in a variety of contexts for example, service quality in banking (Cronin & Taylor, 1992; Kwan & Hee, 1994; Howcroft, 1993; Laroche & Taylor, 1988; LeBlanc & Nguyen, 1988; Lewis, 1991, 1993; Teas & Wong, 1991; Yousapronpaiboon, 2000), an accounting (Bojanic, 1991), hospitals (Babakus & Mangold, 1992; Carman, 1990), insurance (Wells & Royne, 1995), real estate (Johnson, Dotson, & Dunlop, 1988), medical practice (Brown & Swartz, 1989), and gas and electric utility (Babakus & Boller, 1992). Service quality measurement is an area characterized by debate concerning the need for measuring customer expectations (Parasuraman, Zeithaml, & Berry, 1994a, b).

Moreover, Lewis and Booms (1983) believed that service quality was a measure of how well the service level delivered matches customers' expectations. Taylor and Cronin (1994) found that service quality is best conceptualized as an attitude and best measures services firm performance. However, SERVQUAL appears to be a better measure of satisfaction than service quality because expectancy-disconfirmation is more closely related to consumer satisfaction than service quality.

Studied empirically, Taylor, Sharland, Cronin, and Bullard (1993) suggest that the

SERVQUAL is a promising scale which can play a significant role in operationalizing service quality. Their studies in the recreation and leisure domain suggest that service quality is an important construct to be considered in future research and practice in the United States and by extension, the international setting. They also suggest that anything less than judicious conceptual and methodological use of SERVQUAL in international settings is likely to prove disappointing.

Conclusion

Business organizations are increasingly placing more focus on service quality. Many businesses are channeling more efforts to retain existing customers rather than to acquire new customers. Measuring service quality is quite different from measuring product quality, because inherent characteristic of services are intangibility, perishability, inseparability, and variability.

The conceptual model of service quality provided a structure for understanding service quality, measuring service quality performance, diagnosing service quality problems, and deriving solutions to the problem. The SERVQUAL instrument has been incorporated by many researchers investigating service quality in a number of industries such as banking, communications, education, hospital, hotel, insurance, and restaurants to improve quality needs. It has been used to assess expectations and perceptions with respect to various determinants of service quality. The testing of SERVQUAL instrument has been validity and reliability of scale data from several service firms in different industries was conducted of service quality problems and solutions in the service industries. Service quality has, therefore, become a predominant part of the strategic plans of marketing executives.

Appendix A

The Three-Column Format of Service Quality Measurement

We would like your impressions about _____'s service performance relative to your expectations. Please think about the two different levels of expectations defined below:

MINIMUM SERVICE LEVEL -the minimum level of service performance you consider adequate.

DESIRED SERVICE LEVEL -the level of service performance you desire

For each of the following statements, please indicate: (a) your minimum service level by circling one of the numbers in the first column; (b) your desired service level by circling one of the numbers in the second column; and (c) your perception of _____'s service by circling one of the numbers in the third column.

	Column 1	Column 2	Column 3
	My Minimum Service Level is: <i>Low</i> <i>High</i>	My Desired Service Level is: <i>Low</i> <i>High</i>	My Perception of _____'s Service Performance is: <i>Low</i> <i>High</i>
When it comes to...			
1. Prompt service as promised.	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
2. Dependability in handling customers' service problems.	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9
3. Performing services right the first time.	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9	1 2 3 4 5 6 7 8 9

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