

REVIEW OF THE SERVQUAL CONCEPT

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ABSTRACT:

The basic aim of this paper is to review the literature and point out at the main controversies regarding the SERVQUAL and to defend this robust instrument. Namely, SERVQUAL was the first and, doubtless, most popular measurement tool for service quality. However, usefulness of the SERVQUAL instrument is questionable for a number of reasons. First, empiric studies have produced inconsistent results regarding whether expectations should be included as a variable. Second, several studies have failed to detect the same dimensions as Parasuraman, Zeithaml and Berry (1985, 1988), when applying the SERVQUAL instrument in some different service areas.

1. INTRODUCTION

In the industrialized nations, over the past two decades, the service sector has become the dominant element of the economy. For example, in 1989 the service sector accounted for: 62 per cent of the UK's Gross domestic product (GDP); 60 per cent of Germany's GDP; 56 per cent of Japan's GDP and 67 per cent of France's GDP [1]. In the United States, service industries are playing an increasingly important role in the overall economy, with 69 per cent of the USA's GDP. The proportion of the U.S population employed in the service sector has increased from 30% in 1900 to 74% in 1984, but this sector is continuing to increase [2].

These were the main reason that service quality has become an important research topic. Besides, interest for service quality was challenged with the intangible nature of service quality and the complexity of the service quality measurement. It is difficult for the service provider to define and provide quality service. Researchers are trying to define the concept of the service quality as well as the way to measure it effectively. There has been controversy about the concept and the measurement of service quality and several questions have not yet been answered [3].

Whilst the service management literature contains much by way of explanation as to why the measurement of service quality is difficult, relatively little work, particularly empirical work, seems to have been carried out to discover how service organizations are overcoming these difficulties [4]. There seems little doubt that in the past decade SERVQUAL has proved to be the most popular instrument for measuring service quality. But, in the same time, since SERVQUAL was presented, there have been many criticisms and question about its concept, validity and accessibility.

2. CONCEPT OF THE SERVQUAL INSTRUMENT

In their seminal paper, Parasuraman, Zeithaml, and Berry (in the literature, known as PZB) (1985) proposed a conceptual framework for service quality. The PZB model was based on the interpretation of qualitative data from extensive exploratory research (focus groups and in-depth executive interviews) performed in several service businesses: retail banks, a long distance telephone company, securities broker, repair and maintenance firm and credit card company.

PZB identified four distinct gaps on the service provider's side that potentially affect customer perception of service quality [7]. The gaps are described briefly below [1,6].

1. *Consumer expectation – management perception gap (Gap 1)*: Management may have inaccurate perceptions of what consumers (actually) expect. The reason for this gap is lack of proper market/customer focus. The presence of a marketing department does not automatically guarantee market focus. It requires the appropriate management processes, market analysis tools and attitude.

2. *Service quality specification gap (Gap 2)*: There may be an inability on the part of the management to translate customer expectations into service quality specifications. This gap relates to aspects of service design.

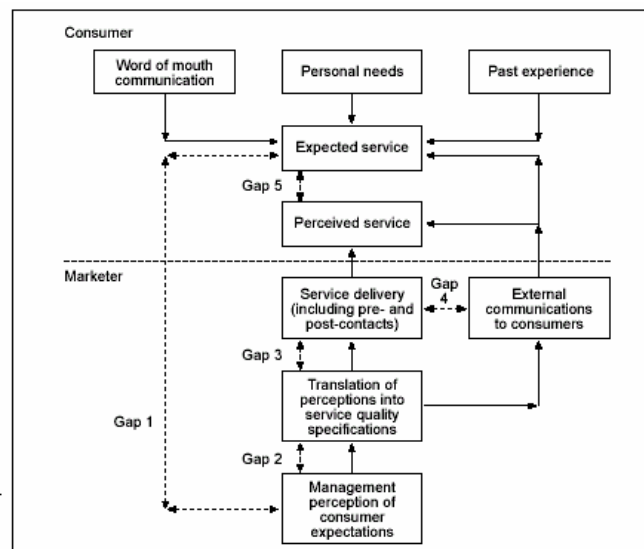


Figure 1: SERVQUAL'S Gaps

3. *Service delivery gap (Gap 3)*: Guidelines for service delivery do not guarantee high-quality service delivery or performance. There are several reasons for this. These include: lack of sufficient support for the frontline staff, process problems, or frontline/contact staff performance variability.

4. *External communication gap (Gap 4)*: Consumer expectations are fashioned by the external communications of an organization. A realistic expectation will normally promote a more positive perception of service quality. A service organization must ensure that its marketing and promotion material accurately describes the service offering and the way it is delivered.

These four gaps cause a fifth gap (Gap 5), which is the difference between customer expectations and perceptions of the service actually received. Parasuraman *et.al* defined this difference as **service quality** (Figure 1).

Perceived quality of service depends on the size and direction of Gap 5, which in turn depends on the nature of the gaps associated with marketing, design and delivery of services. Parasuraman *et. al.* stated following proposition:

$$\text{Gap5} = f(\text{Gap1}, \text{Gap2}, \text{Gap3}, \text{Gap4})$$

In his emergent investigations, Parasuraman *et al.*'s research revealed 10 dimensions transcending different types of services that customers use forming expectations about and perceptions of services received: Reliability, Responsiveness, Competence, Access, Courtesy, Communication, Credibility, Security, Understanding/knowing the customer and Tangibles. But, In their 1988 work, these components were collapsed into five dimensions: Reliability, Assurance, Tangibles, Empathy and Responsiveness (RATER dimensions), as defined in *Table I*. Reliability, tangibles and responsiveness remained distinct, but the remaining seven components collapsed into two aggregate dimensions, assurance and empathy [8].

Table 1: SERVQUAL dimensions [8,9]

Dimensions	Definition
Reliability	The ability to perform the promised service dependably and accurately
Assurance	The knowledge and courtesy of employees and their ability to convey trust and confidence
Tangibles	The appearance of physical facilities, equipment, personnel and communication materials
Empathy	The provision of caring, individualized attention to customers
Responsiveness	The willingness to help customers and to provide prompt service

The scale was developed by, first, writing a set of about 100 questions that asked consumers to rate a service in terms both of expectations and of performance on specific attributes that were thought to reflect each of the ten dimensions. Next, the data were analyzed by grouping together sets of questions that all appeared to measure the same basic dimension, such as reliability.

Factor analysis was a major tool as it provides a means of determining which questions are measuring dimension number one, which questions are measuring dimension number two and so on, as well as which questions do not distinguish between dimensions and the number of dimensions in the data. Questions that were not clearly related to a dimension were discarded. A revised scale was administered to a second sample, questions were tested and the result was a 22-question (item) scale measuring five basic dimensions of reliability, responsiveness, empathy, assurance and tangibles both on expectations and performance. Since both expectations are measured using 22 questions, and performance is rated using 22 parallel questions, 44 questions in total are used. As an example, the pair of questions measuring reliability for banks was as follows:

(1) Expectations: these institutions should be dependable.

(2) Performance: (a specific bank) is dependable.

The customer rating a bank would indicate his or her extent of agreement or disagreement with each statement with 7 indicating “strongly agree” and 1 “strongly disagree”, with 6, 5, 4, 3, 2 for a rating between “strongly agree” to “strongly disagree”. Quality was measured as performance-expectations for each pair of questions and the summary score across all 22 questions was the measure of quality. As an example, if the performance score was 6 and the expectations score was also 6, the bank would have met expectations, high service quality, for a quality score = 0 [5,6,8,9].

Finally, in 1988 Parasuraman *et al.* announced the new instrument for measure of the service quality named SERVQUAL, consists of two key terms: SERV - service and QUAL - quality. In the practice, the instrument is administered twice in different forms, first to measure expectations and second to measure perceptions. The respondent is asked to rate his/her expectations and perceptions of performance on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) and the results are then used to identify positive or negative gaps.

Based on empirical tests with the instrument and various theoretical considerations Parasuraman *et al.* claim that SERVQUAL is both a reliable and a valid measure of service quality for service and retailing organisation. They also claim that the instrument is applicable to a wide variety of service contexts, although it may be necessary to reword and/or augment some of the items [4,9,18].

3. POTENTIAL USES OF SERVQUAL

Analysis of SERVQUAL data can take several forms: item-by-item analysis (e.g. P1 – E1, P2 – E2); dimension-by-dimension analysis (e.g. $(P1 + P2 + P3 + P4/4) - (E1 + E2 + E3 + E4/4)$, where P1 to P4, and E1 to E4, represent the four perception and expectation statements relating to a single dimension); and computation of the single measure of service quality ($(P1 + P2 + P3 \dots + P22/22) - (E1 + E2 + E3 + \dots + E22/22)$), the so-called SERVQUAL gap [8]. There are a number of ways in which SERVQUAL results can be used to help services identify areas for performance improvement.

According to Parasuraman *et. al* [9], SERVQUAL is most valuable when it is used to track service quality trends, and when it is used in conjunction with other forms of service quality measurement. A retailer, for example, would learn a great deal about its service and what needs to be done to improve it by administering both SERVQUAL and an employee survey three or four times a year, plus systematically soliciting and analyzing customer suggestions and complaints. Another application, emphasized Parasuraman *et. al*, is its use in categorizing a firm's customers into several perceived-quality segments (e.g. high, medium and low) on the basis of their individual SERVQUAL scores. These segments then can be analyzed on the basis of (1) demographic, psychographic and/or other profiles; (2) the relative importance of the five dimensions in influencing service quality perceptions; and (3) the reasons behind the perceptions reported.

Parasuraman *et. al* [9] described how the SERVQUAL can be used to assess service performance to the competitors: "The two-section format of the instrument, with separate expectation and perception sections, makes it convenient to measure the quality of several firms simply by including a set of perception statements for each firm. The expectation section does not have to be repeated for each firm. For example, a supermarket chain could include its two principal competitors in a total market survey, asking respondents to provide perception ratings for each of the companies with which they have shopping experience. A retailer that uses SERVQUAL to identify the most salient service quality dimensions for its target markets, and to compare itself to the competition in terms of strength and weaknesses on these particular dimensions, will certainly have a sense of what its priorities should be with regard to service quality".

Wisniewski [22] emphasized the following applications of the SERVQUAL:

- **Weights:** Results can also be used to provide an overall understanding of the relative importance from the customer's perspective of the five service dimensions in terms of an individual service and across different services. Potentially, this allows for resource prioritisation in terms of performance improvement.

- **Understanding the internal customer:** In order to deliver service quality to the external customer it is well recognised that internal customer service must also be of the right quality. In any organisation there exists the service chain – the inter-connected activities across the whole organisation that deliver the service to the final customer. Like any chain it is only as strong as its weakest link and the service received by the external customer will be inadequate if internal customer service is not delivered.

- **Comparing services:** Results from gap-based surveys can also be used to compare services. Such comparison might be within a particular council where different services have used

similar surveys. It could also be between councils where similar services have used a comparable survey.

- **Performance over time:** One of the prime purposes of such performance measurement is to allow action to be taken to close significant gaps in service provision. Repeating the gap survey over time allows the service to track whether actions taken have closed gaps and whether new gaps are appearing.

4. CRITICISMS OF THE SERVQUAL INSTRUMENT

Notwithstanding its popularity and widespread application, SERVQUAL has been subjected to a number of theoretical and operational criticisms (Carman, 1990, Cronin and Taylor, 1992, 1994, Cuthbert, 1996, Lee et. al, 2000, Snipes and Thomson, 1999 etc..).

Buttle [8] divided these criticisms and controversies into theoretical and operational parts:

- 1) Theoretical: paradigmatic objections, gaps model, process orientation, dimensionality and
- 2) Operational: expectations, item composition, moment of truth, polarity, scale points, two administrations and variance extracted.

4.1. Disconfirmation paradigm

Parasuraman *et. al.*'s measure of service quality was based on Oliver's [13] disconfirmation model, in which had been proposed that satisfaction is a function of the disconfirmation of performance from expectation. According to that, Parasuraman *et. al* proposed that service quality is a function of the differences between expectation and performance along the ten (later, along the five) quality dimension. Just this disconfirmation SERVQUAL's paradigm is most questioned issue. Cronin and Taylor (1992) argued that SERVQUAL is paradigmatically flawed because of its ill-judged adoption of this disconfirmation model. In other work, Cronin and Taylor (1994) comment that SERVQUAL confounds satisfaction and attitude and measuring neither service quality nor customer satisfaction. They stated that service quality can be operationalized as "similar to an attitude" and developed an alternative measurement tool, SERVPERF, which concerns only performance. Cronin and Taylor critique draws support from Oliver's (1980) research which suggests that service quality and customer satisfaction are distinct constructs but are related in that satisfaction mediates the effect of prior period perceptions of service quality and causes revised service quality perceptions to be formed [2,8].

On the basis of the disconfirmation theory, Parasuraman *et. al* defined the Gaps model, like a grounding of the SERVQUAL. Cronin&Taylor [2] posited that such conceptualization and operationalization of service quality is inadequate: "The SERVQUAL scale is based on Parasuraman, Zeithaml and Berry's (1985,1988) gap theory, which suggest that the difference between consumers' expectations about the performance of a general class of service providers and their assesment of the actual performance of a specific firm within that class drives the perception of service quality. However, little of any theoretical or empirical evidence supports the relevance of the expectations-performance gap as the basis for measuring service quality".

4.2. Expectations

Researchers agree that, undoubtedly, expectations play significant role in the conceptualization of service quality. For example, Bebeko [12] stated: "...understanding customers service quality expectations is the key to delivering service quality". But, there are many problems in operationalization of this service quality aspect. Carman [10] made the difference between theoretical and practical standpoint. According to Carman, from a theoretical standpoint, it is reasonable to expect that perceptions of quality are influenced by expectations. From a practical standpoint, Carman continued, the procedure is even less desirable: "Can a retailer really expect a

customer to complete an expectation battery when coming in the door and then complete the perceptions battery at the end of the service encounter? We think not were unable to find a service setting where this was practical", stated Carman.

4.3. Number of dimensions

By using operationalization of SERVQUAL, it has been demonstrated that the five dimensional structure claimed for SERVQUAL is unstable [20]. In Buttle's [8] article noted the following: "Five factors were distinguished in Saleh and Ryan's (1992) work in the hotel industry – conviviality, tangibles, reassurance, avoid sarcasm, and empathy... Four factors were extracted in Gagliano and Hathcote's (1994) investigation of SQ in the retail clothing sector – personal attention, reliability, tangibles and convenience (two of these have no correspondence in SERVQUAL)... Three factors were identified in Bouman and van der Wiele's (1992) research into car servicing – customer kindness, tangibles and faith [6]... One factor was recognized in Babakus *et al.*'s (1993b) survey of 635 utility company customers, etc.." Furthermore, Carman [10] emphasized that if a dimension is very important to customers they are likely to be decomposed into a number of sub-dimensions.

4.3. Item problems

In some studies, items have not loaded on the factors to which they were expected to belong, and this were happened in some of the own investigations [15]. Carman [10] found that only two-thirds of the items loaded in the same way on the expectations battery as they did in the perception battery, which indicated SERVQUAL's face and construct validity problems. Also, each factor in the SERVQUAL scales is composed of four or five items. It has become clear that this is often inadequate to capture the variance within, or the context-specific meaning of each dimension [8].

4.4. Polarity

Of the 22 items in the 1988 SERVQUAL scale, 13 statement pairs are positively worded, and nine pairs are negatively worded (the negatives are the full set of Responsiveness and Empathy statements). Parasuraman *et al.*'s goal was to reduce systematic response bias caused by *yes*-saying and *no*-saying [8]. But, in factor analysis of SERVQUAL data, some authors found that negatively-worded items loaded heavily on one factor while all positively-worded items loaded on another. It is also found a significant difference between the average P, E and gap scores of positively and negatively-worded items [4,5,11,15,21].

4.5. Two administrations

Respondents appear to be bored and sometimes confused by the administration of E (expectation) and P (perception) versions of SERVQUAL, and this boredom and confusion will adversely affect data quality [8,10,16]. Siu and Cheung [16] also quoted Wall and Payne's (1973)¹ premise that "when people are asked to indicate the desired level (expectations) of a service and the existing level (perceptions) of the service, there is a psychological constraint that people always tend to rate the former higher than the latter (E>P)."

Relating the length of the questionnaire, Franceschini and Cignetti [21] wrote that "...the number of items proposed is an extremely delicate factor for a questionnaire. If it is true that more the items dispensed the higher is the information "available", it is also true that items in themselves may stimulate a clear idiosyncrasy and tiredness during administration". These authors conclude the following: "This fact indicates a lowering of interviewee involvement and a loss of information trustworthiness".

¹ Wall T.D., Payne r. (1973): Are deficiency scores deficient, Journal of applied psychology, Vol. 58, pp. 322-6.

5. CONCLUSION

SERVQUAL is a concise multiple-item scale with good reliability and validity that retailers can use to better understand the service expectations and perceptions of consumers and, as a result, improve service. By his instigators, SERVQUAL has been designed as a generic measure, that could be applicable across a broad spectrum of services. As such, it provides a basic skeleton through its expectations/perceptions format encompassing statements for each of the service quality dimensions. The skeleton, when necessary, can be adapted or supplemented to fit the characteristics or specific research needs of a particular organization. Just because the developers have held that SERVQUAL can be applied to determine the service quality offering of any service firm, the instrument has been extensively adopted. But, the various replications undertaken have highlighted a number of areas of both theoretical and psychometric concern and this criticisms has focused on a number of aspects.

In responses to all criticisms, Parasuraman *et. al* revised original SERVQUAL instrument. The changes in SERVQUAL are significant in view of the criticisms that had been levied at the model and may be interpreted as a specific response to such criticisms.

In 1991, SERVQUAL was revised by Parasuraman *et. al* [see ref. 18] based on the result of an empirical study on five service companies. The differences from the original version are as follows: first, since the *should* terminology in the original version might contribute to unrealistically high expectation scores, a slightly different wording was adopted. The revised wording focused on what customer would expect from companies delivering excellent services; second, the negatively worded items in the original version were all changed to a positive format; third, the new items were substituted for two original items to more fully capture the dimensions and to incorporate suggestions from managers [14]. In 1994, Parasuraman *et. al* [see ref. 19] developed and investigated three alternative SERVQUAL formats. From their empirical research, the authors conclude that "three-column format questionnaire seems most useful" as it can be used for diagnostic purposes and offers the possibility of using the perception items separately for those interested in maximizing predictive power. Among other improvements, the three-column format incorporates the recent reconceptualization of the expectations side of the Gaps model into desired and minimum expectation [20]. Also, the scale being used was increased from seven to nine intervals to "offer respondents a wider range of rating choices in view of the need to capture two different expectation levels". Additionally, the presence of the five dimensions was tested by use of confirmatory factor analysis using Lisrel, and the conclusion was reached that while a five dimension was consistent across the different samples, the result also supported "the possibility of a three-dimensional structure wherein responsiveness, assurance and empathy meld into a single factor" [19,23].

The diversity among service industries gives one reason to question the appropriateness of generic quality measurement scales such as SERVQUAL, and indicates that customisation to the specific market-industry context is more pertinent [11]. Research on developing measurements for service quality is still seeking to find the best tools, whether there should be a general tool, or unique tools for each service sector, whether customer expectation should be included in the measuring process or if perceived performance is enough, whether the tools should be weighted or unweighted, and whether dimensions for service quality should be general or specific and how many dimensions service actually has [3]. Also, the Q=E-P paradigm (or disconfirmation paradigm), despite criticisms by variety of authors, still seems to be the most practical model for the measurement of service quality currently available in the literature [24]. So, for the end of this review, it is quoted Asunbonteng's [5] premise: **"Until a better but equally simple model emerges, SERVQUAL will predominate as a service quality measure"**.

6. REFERENCES

- [1] Ghobadian A., Speller S., Jones M. (1994): Service quality: concepts and models, *Journal of quality and reliability management*, Vol. 11, No. 9, pp. 43-66.
- [2] Cronin J.J., Steven Jr., Taylor A. (1992): Measuring service quality: A reexamination and extension, *Journal of marketing*, Vol. 56, July, pp. 55-68.
- [3] Thongsamak S. (2001): Service quality: Its measurement and relationship with customer satisfaction, *Journal of service marketing*, 14/1, pp. 9-26.
- [4] Marković S., Horvat J. (2002): Higher education quality measurement: A case study in the application of SERVQUAL, *Proceedings of the 16th Conference "Human capital, culture and quality in tourism and hospitality"*, pp. 141-161, 23-26 October, Opatija.
- [5] Asunbonteng P., McCleary K.J., Swan J.E. (1996): SERVQUAL revisited: a critical review of service quality, *The journal of services marketing*, Vol. 10, No. 6, pp. 62-81.
- [6] Parasuraman A., Zeithaml V.A., Berry L.L. (1985): A conceptual model of service quality and its implications for future research, *Journal of marketing*, Vol. 49, (Fall 1985), pp. 41-50.
- [7] Cook L. S., Verma R. (2002): Exploring the linkages between quality system, service quality and performance excellence: Service provider's perspectives, *Quality management journal*, Vol. 9, No. 2, pp. 44-56.
- [8] Buttle F. (1996): SERVQUAL: review, critique, research agenda, *European journal of marketing*, Vo. 30, No. 1, pp. 8-32.
- [9] Parasuraman A., Zeithaml V.A., Berry L.L. (1988): SERVQUAL: A multiple item scale for measuring consumer perceptions of service quality, *Journal of retailing*, Vol. 64, No. 1, pp. 12-40.
- [10] Carman J.M. (1990): Consumer perceptions of service quality: An assesment of the SERVQUAL dimensions, *Journal of retailing*, Vol. 66, No. 1, pp. 33-53.
- [11] Marković S., Horvat J. (1999): Customer satisfaction measurement, *Proceedings of second international conference "Economy and ecology in the hospitality function development"*, Bratislava, 1999.
- [12] Bebko, C. P. (2000). Service intangibility and its impact on customer expectation of service quality, *Journal of Service Marketing* 14 (1), pp. 9-26.
- [13] Oliver R.I (1980): A cognitive model of the antecedents and consequences of satisfaction decisions, *Journal of marketing research*, Vol. 17. November, pp. 460-9.
- [14] Lee H, Lee Y, Yoo D. (2000): The determinants of perceived service quality and its relations with satisfaction, *Journal of services marketing*, Vol. 14, No. 3, pp. 217-231.
- [15] Kulašin Dž, Horvat J. (2004): Using the SERVQUAL for the customer satisfaction measurement process in Technical high school Bugojno, *Proceeding of 8th "TMT 2004"*, 15-19.September, 2004, Neum, BiH.
- [16] Siu N. Y. M., Cheung J.T.H. (2001): A measure of retail service quality, *Marketing intelligence and planning*, 19/2, pp. 88-96.
- [17] Cronin J.J., Steven Jr., Taylor A. (1994): SERVPERF versus SERVQUAL: Reconciling performance based and perceptions-minus-expectations measurement of service quality, *Journal of marketing*, Vol. 58, January, pp. 125-131.
- [18] Parasuraman A., Zeithaml V.A., Berry L.L. (1991): Refinement and reassessment of the SERVQUAL scale, *Journal of retailing*, Vol. 67, No. 4, pp. 420-450.
- [19] Parasuraman A., Zeithaml V.A., Berry L.L. (1994): Alternative scales for measuring service quality: A comparative assessment based on psychometric criteria, *Journal of retailing*, Vol. 70, No. 3, pp. 201-230.
- [20] Caruana A, Ewing M.T, Ramaseshan B. (2000): Assessment of the three-column format SERVQUAL: An experimental approach, *Journal of business research*, No. 49, pp. 57-65.
- [21] Franceschini F., Cignetti M. (1998): Comparing tools for service quality evaluation, *International journal of quality science*, Vol. 3, No. 4, pp. 356-367.
- [22] Wisniewski M. (2001): Using SERVQUAL to assess customer satisfaction with public sector services, *Managing service quality*, Vol. 11, No. 6, pp. 380-388.
- [23] Ryan C., Cessford G. (2003): Developing a visitor satisfaction monitoring methodology: Quality gaps, crowding and some results, *Current issues in tourism*, Vol. 6, No. 6. pp.457-492.
- [24] Cuthbert P.F. (1996): Managing service quality in HE: Is SERVQUAL the answer?, Part 2, Vol. 6, No. 3, pp.31-35.