MAURIZIO LANFRANCHI
CARLO GIANNETTO
MARIA LUIZA SOUCA

SERVQUAL – MEASURING AND EVALUATING SERVICE QUALITY AND CUSTOMER SATISFACTION

Introduction

When it comes to defining service quality, most people are at an impasse. Customers have difficulties in articulating a clear picture of all the requirements that make service high quality, while service providers are faced with difficulties in defining, controlling and, most of all, measuring this elusive concept. For this reason, it is imperative that researchers give their input in creating a valid and reliable model, and a related instrument, capable of measuring service quality. While an issue of great importance for the management of any service provider, in the academic world only a handful of researchers have managed to operationalize the concept of service quality: Parasuraman, Zeithaml and Berry (1985, 1988, 1991, 1994, 2004), Brown and Swartz (1989), Carman (1990), Boltan and Drew (1991), Knutson, Stevens, Wullaert, Patton and Yokoyama (1991), Cronin and Taylor (1992), Babakus and Boller (1992), Teas (1993, 1994), Tibe and Snaith (1998) .

Furthermore, when it comes to measuring service quality, there are two perspectives that have to be considered: internal and external. The internal measurement of service quality is based on the zero-defects approach or "getting it right the first time", while the external perspective focuses on understanding the concept of service quality in the light of customer perception, customer expectation, customer satisfaction, customer attitude and customer delight (Sachdev & Verma, 2004). This external approach is getting more important lately as consumers are reportedly more knowledgeable; more sophisticated in their choices and also have significantly changed their likes and dislikes over the years. Among the definitions for service quality, looked at from an external perspective, the one created by Parasuraman, Zeithaml and Berry (1985) seems to be the most useful: service quality is defined as the degree and direction of discrepancy or gap that exists between the customer's expectations and perceptions, in terms of the different dimensions of service quality, discrepancy that can affect a customer's future behaviour. This definition was also the starting point of the SERVQUAL model for measuring service quality.

The measurement scale proposed by Parasuraman and his colleagues (1985), while creating the SERVQUAL model, ranges from ideal quality to total unacceptable quality with a point along it that represents satisfactory quality. The customer perceptions on service quality are dependent on the placement on the scale and the nature of the gap existing between the expected service and the service perceived by the customer. If the expected service is more than the actual service then the perceived service quality is less than satisfactory, moving towards totally unacceptable quality as the discrepancy between the expected and perceived service increases. If the expected service is less than the perceived service, the perceived service quality is more than satisfactory tending towards ideal quality as the positive discrepancy between the perceived and the expected service increases. In a third situation, when the expected service is equal with the perceived service the perceived service quality is deemed satisfactory. To put it more simply, service quality (SQ) is operationalized as perceived performance (P) minus expectations (E - measured as disconfirmation), this simple equation providing a method to service providers, so they can evaluate and manage their service quality levels by working on one or both parameters: consumer perception (P) and expectation (E). From this perspective, the way to maximize the quality is to maximize the positive difference between "P" and "E", or in other words to exceed the customer expectations. The same approach: "P-E" measure algorithm is also applied by the customer satisfaction literature (Oliver, 1980), even though the two concepts, customer satisfaction and service quality, are conceptually different.

Other than Parasuraman and his team, there have been other researchers and practitioners that have developed and recommended the use of measured disconfirmation – where the customer is called to mentally compare "performance" against "expectations", while a notable group of researchers believe that the "performance" parameter alone is the better predictor of consumer evaluation and points of interest, making the use of "expectations" obsolete. This group has criticized the SERVQUAL and pointed its flaws, and by doing so they have also provided an alternative: the SERVPERF model and related instrument of research (Cronin & Taylor, 1992). Whether SERVQUAL or SERVPERF is the better alternative, this article will try to analyze both the relevant literature and a number of practical applications in order to provide an answer.

What is SERVQUAL?

When Oliver (1980) introduced his definition of customer satisfaction as the result of experimenting the service's quality and comparing it to the customer's previous expectations, he opened the door for the researchers who had the vision to create a model and a related instrument through which service quality could be measured. Among those, the most notable contribution to the measure of service quality in the 1980s was the SERVQUAL model (Parasuraman *et al.*, 1985,1988). Since service quality has been reported to have a significant positive connection to customer satisfaction (Boltan & Drew, 1991; Boulding

et al., 1993, Burton *et al.*, 2003), customer retention (Reichheld & Sasser, 1990), behavioral intentions and positive word-of-mouth (Cronin & Taylor, 1992; Hui *et al.*, 2007), throughout the years the SERVQUAL model has also known a wide application in the field of determining customer satisfaction, especially since the models contruct utilises the "perceptions" minus "expectations" approach. However, as a number of studies suggested, the model and implicitly the reasearch instrument was not perfect, requiring further analysis and reassessments. Those were done by the model's creators (Parasuraman *et al.*, 1988, 1991, 1994), or by other researchers (Cronin & Taylor, 1992; Babakus & Boller, 1992). Still, before we can discuss the criticism SERVQUAL has faced over the years, it would be beneficial to draw a quick picture of the model itself.

As previous stated, SERVQUAL is based on the external perspective regarding service quality, which states that the customer's assessment of the service quality is paramount. This assessment is conceptualized as a discrepancy or gap between what the customer expects by way of service quality from a class of service providers (e.g. tourist accommodation in the farm holiday) and their evaluation of the performance of a particular service provider (e.g. a specific farm holiday). And while at first glance this is a simple equation, in order to obtain detailed information Parasuraman, Zeithaml and Berry (1985) formulated service quality as a multidimensional construct having 10 components:
- reliability,
- responsiveness,
- competence,
- access,
- courtesy,
- communication,
- credibility,
- security,
- understanding/knowing the customer,
- tangibles.

Three years later, in 1988, Parasuraman and his team compressed them into five dimensions: reliability, assurance, tangibles, empathy and responsiveness (RATER) defined as follows.
- 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 the 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.

To measure the dimensions and their impact on service quality, Parasuraman, Zeithaml and Berry (1988) developed an instrument with 22 items, four or five items attributed to each dimension, used for both the customers' expectations and their perceptions. This instrument was administrated twice, in different forms, first used to measure the expectations and, after the service was delivered, to measure the perceptions. The first revision of the instrument was in 1988, when a number of items possessing negative wording were changed into positive affirmation as it was discovered that the negative wording had an impact on how some factors were perceived, and later in 1991 when the wording for all expectations changed. If the 1988 version of the research instrument tried to capture the respondents' normative expectations, the new wording focused on what customer should expect from "excellent service companies." Other than that the changes included new items for tangibles and assurance substituting the original ones, and detailed wording of many perceptions items.

The analysis of the SERVQUAL data can take many forms: item by item analysis, dimension by dimension analysis or a single measurement of overall service quality – the so-called SERVQUAL gap – depending on what the research hypotheses are. And there have been many studies throughout the years that have employed the SERVQUAL model and instrument in a variety of industrial, commercial and not-for-profit settings. The published studies range from car servicing (Bouman & and van der Wiele, 1992), tyre retailing (Carman, 1990) to higher education (McElwee & Redman, 1993), accounting firms (Freeman & Dart, 1993), banking (Varki & Colgate, 2001), hospitals (Babakus & Mangold, 1992) and especially the hospitality and tourism industries (Fick & Ritchie, 1991; Luk *et al.*, 1993; Bojanic & Rosen, 1994; Ryan & Cliff, 1997; Matzler *et al.*, 2006). In fact, SERVQUAL served also as a basis for more specific instruments in the hospitality industry: LODGSERV, a 26 item index designed to measure customer expectations for service quality in the hotel experience (Knutson *et al.*, 1991); DINESERV, an instrument designed to evaluate the service quality in restaurants (Stevens *et al.*,1995); RECQUAL, an evaluation instrument for recreation centers (MacKay & Crompton, 1990) and HOLSAT an instrument to measure the satisfaction for a tourist destination (Tibe & Snaith, 1998). In addition, there have also been many unpublished SERVQUAL studies focusing on computer services, construction, recreational services, ophthalmological services and retail services (Buttle, 1996).

Taking all this into account, it's clear that the SERVQUAL model and its instrument are a popular choice in both the academic and the practical field, so to criticize it, it means to bring strong and conclusive arguments for each point. What follows is a number of theoretical and operational criticisms that have been raised by some of the researchers involved in the field of service quality and customer satisfaction.

The criticisms for SERVQUAL

Without doubt, the SERVQUAL model is widely applied and well-liked. Still, the model has been seriously criticized about the application of expectations and the gap scoring – since expectation (E), as a comparison standard, is a difficult concept to quantify which makes the gap score, by implication, less secure as a measurement. Another criticism has been from a methodological point of view and finally doubt has been expressed whether the dimensions identified could be considered universal. (Pizam & Ellis, 1999). But let's discuss each of these criticisms further below.

The use of expectation as a comparison standard and the use of the Gap score

A fundamental part of the SERVQUAL model is the disconfirmation theory adopted by the customer satisfaction literature. In it, customer satisfaction is operationalized in terms of the relationship between expectations (E) and outcomes (O). If O matches E, customer satisfaction is predicted, if O exceeds E the result may be customer delight, else customer dissatisfaction is indicated.

According to Cronin and Taylor (1992; 1994) SERVQUAL is flawed because of the adoption of the disconfirmation model as "conceptual advances suggest that the disconfirmation-based SERVQUAL scale is measuring neither service quality nor consumer satisfaction. Rather, the SERVQUAL scale appears at best an operationalization of only one of the many forms of expectancy-disconfirmation." (Cronin Jr. & Taylor, 1994:127). According to the authors, and citing several references (Boltan & Drew, 1991; Boulding *et al.*, 1993) in order to measure service quality a performance-based alternative to SERVQUAL is better suited. It was called SERVPERF, an instrument composed of the 22 perceptions items in the SERVQUAL scale, and therefore excluding any consideration of expectations (Cronin & Taylor, 1992). The model was tested in four industries (banking, pest-control, dry-cleaning and fast-food) where it was found to explain better the variance in overall measure of service quality, than it did SERVQUAL applied to the same case-studies.

Other than the issues raised by Cronin and Taylor (1992; 1994), there were concerns related to the use of expectations as a parameter in evaluating service quality. Teas (1993) claimed that the validity of the "P-E" gap framework as it was specified when creating SERVQUAL, was undermined by a number of problems existing in Parasuraman, Zeithaml and Berry (1985, 1988) conceptual and operational definitions of the "Expectations" components of the model. This, in turn, led to ambiguity concerning the interpretation and theoretical justification of the "P-E" perceived quality concept. Also, in support to Cronin and Taylor (1992) claims, Teas (1994) demonstrates that compared to the SERVQUAL "P-E" norm quality framework, the evaluated-performance based framework is characterized by a greater construct validity, which in turn may make it more valid and useful when needed to measure service perceived quality.

On the same note, Babakus and Boller (1992) found the use of the disconfirmation approach to service quality measurement appealing, yet according to their study, the dominant

contributor to the gap score was the perception score because of the generalized customer's tendency to rate expectation high. This was a bias that was further explained as the customer's desire to attract social desirability by consciously or unconsciously adhering to the "I-have-high-expectation" social norm. (Babakus & Inhofe, 1991).

From another point of view, Iacobucci, Grayson and Ostrom (1994) suggest that expectations might not exist, or have a clear form, in order to serve as a standard for evaluation, and that they might be formed simultaneously with service consumptions. There is also the fact that expectations change over time, as they are influenced by actual experience. (Wotruba & Tyagi, 1991)

And on a final note, an implicit part of the SERVQUAL is the assumption that from the customer's perspective the positive and negative disconfirmations of the initial expectations are symmetrical. However, customers will often criticize poor performance and not praise exceptional performance, as failure to meet expectations often seems more significant than success in meeting or exceeding expectations. (Buttle, 1996). There's another psychological construct, which Grönroos (1993) refers as the bad-service paradox. According to it, a customer may have low expectations based on previous experience with the service provider and if those expectations are met there is no gap and the service quality is deemed satisfactory, even though that may not be the case.

Taking all these elements into consideration, Parasuraman, Zeithaml and Berry (1991; 1994) vigorously defended the SERVQUAL model and instrument of research, while simultaneously improving it and reassessing its scale, wording and dimensions. The expectations part received thorough examination and the changes were beneficial to the SERVQUAL theoretical and practical use. And one of the big differences between the first model and the improved version was the adoption of the "zone of tolerance" approach when considering the customer's expectations.

The studies Parasuraman and his team have conducted suggested the customers, rather than having a single "ideal" level of expectations, have a range of expectations, namely the "zone of tolerance". This zone is bordered at the top by "desired services" (the level of service the consumers believe the providers can and should deliver) and the "adequate service" (the minimum level of service the customers are willing to accept.) If the delivered service falls within the zone, customers will be satisfied. If the service is better than their desired service level, customers will perceive the service as exceptionally good, and be delighted. However, if the service falls below the zone of tolerance, customers will be disgusted and look elsewhere for the service. More important is the fact that the zone of tolerance can vary across customers (reflecting different priorities when considering the delivered service) and across occasions or contexts (reflecting potential drivers for expectations), while also being greatly influenced by what an organization promises, both explicitly and implicitly (Parasuraman, 2004). Accepting the "zone-of-tolerance" component in the SERVQUAL model, led to the creation of the three-column format questionnaire, a diagnostic tool superior to all former versions of SERVQUAL, as its more complex structure has the potential of iden-

tifying critical service shortfalls and not only explain the variance in overall perceptions of service quality (Parasuraman et al, 1994).

This assessment was later challenged by Caruana, Ewing and Ramaseshan (2000) when they questioned the usefulness of the expectations side of three-column format SERV-QUAL as the experiments they conducted indicated that the addition of minimum expectations appeared to have added little of incremental value to the measurement of service quality. Yet, when evaluating the "zone-of-tolerance" component of the SERVQUAL model compared with the performance based models, Teas (2004) reached the following coclusion: while tests involving the perceived service value and intention for purchase still indicate a stronger support for performance-based perceived quality models, the "zone-of-tolerance" was best suited for the tests that indicated the service satisfaction as the criterion variable. In other words, the latest form of SERVQUAL usefullness might go beyond the research in service quality and breach the boudanries into customer satisfaction research, especially when there is strong proven positive link between perceived service quality and customer satisfaction and also satisfaction has an important part in determining the customer's future choice behaviors. (Teas & Palan, 2003)

Conclusions

As demonstrated throughout this article, the SERVQUAL model of evaluating service quality is not a perfect solution. Throughout its history it has been subjected to criticism related to the theory it's based upon: the Gap model, the methodology related to applying the SERVQUAL instrument of research and last but not least, the model's dimensionality has been taken into discussion. For each of these points the researchers have identified weaknesses that put the validity of the SERVQUAL model into question. Some of these issues were addressed by the model's creators: Parasuraman, Zeithaml and Berry with each reassessment of the model, and the fact that with the emergence of the internet a new model called E-S-QUAL developed by Parasuraman, Zeithaml and Malhotra (2005) was created for assessing electronic service quality while being based on the SERVQUAL approach, shows that the model is here to stay for a long time in one form or another, while future research is called to answer satisfactory to each issue identified so far.

Literature

Babakus E., Boller G. (1992), *An empirical assessment of the SERVQUAL scale*, "Journal of Business Research", Vol. 24: 253–268.

Babakus E., Mangold W. (1992), *Adapting the SERVQUAL scale to hospital services: an empirical investigation*, Health Services Research, Vol. 26 (No. 2): 767–86.

Boulding W., Kalra A., Staelin R., Zeithaml V.A. (1993). *A dynamic process model of service quality: from expectations to behavioral intentions*, "Journal of Marketing Research", Vol. 30 (No. 1): 7–27.

Bouman M., van der Wiele T. (1992). *Measuring service quality in the car service industry: building and testing an instrument*, "International Journal of Service Industry Management", Vol. 3 (No. 4): 4–16.

Brown S.W., Swartz T.A. (1989). A *gap analysis of professional service quality*, "Journal of Marketing", Vol. 53: 92–98.

Burton S., Sheather S., Roberts J. (2003). *Reality or Perception?: The Effect of Actual and Perceived Performance on Satisfaction and Behavioral Intention*, "Journal of Service Research": 292–302.

Buttle F. (1996). *SERVQUAL: review, critique, research agenda*, "European Journal of Marketing", Vol. 30, No. 1: 8–32.

Cronin J.J., Taylor S. (1994). *SERVPERF versus SERVQUAL: reconciling performance-based and perceptions-minus expectations measurement of service quality.* "Journal of Marketing", Vol. 58: 125–131.

Gagliano K., Hathcote J. (1994). *Customer expectations and perceptions of service quality in apparel retailing*, "Journal of Services Marketing", Vol. 8 (No. 1): 60–69.

Iacobucci D., Grayson K., Ostrom A. (1994). *The calculus of service quality and customer satisfaction: theoretical and empirical differentiation and integration*, [in:] T. Swartz, D. Bowen, S. Brown (Ed.), Advances in Services Marketing and Management, Vol. 3 (pp. 1–68). Greenwich, CT: JAI Press.

Knutson B., Stevens P., Wullaert C., Patton M., Yokoyama R. (1991). L*ODGSERV: a service quality index for the lodging industry*, "Hospitality Research Journal", Vol. 15: 277–284.

MacKay K.J., Crompton J.L. (1990). *Measuring the quality of recreation services*, "Journal of Park and Recreation Administration", Vol. 8 (No. 3): 47–56.

Lanfranchi M., Giannetto C. (2009*). Strategic guidelines of the cap for safety and valorisation of quality agri-food production. Sustainable tourism within high risk areas of environmental crisis*, Messina, 2009

Lanfranchi M, Giannetto C. (2011). *The environmental balance sheet as a marketing strategy for the farm*, in Quantitative methods for economic, agricultural-food and enviromental sciences.

Lanfranchi M., Chirieleison R, Giannetto C. (2011). *New communication techniques for agri-food enterprises in the age of the new economy*, [in:] R. Borowiecki, A. Jaki: *Global and regional challenges of the 21st century economy.* Studies from economics and management.

Lanfranchi M. (2009). *The development of rural areas using the multifunctional farm model. Enterprise* in The face of 21st century challenges Cracow University of Economics.

Oliver R.L. (1980). *A cognitive model of the antecedents and consequences of satisfaction decisions*, "Journal of Marketing Research", Vol. 17 (November): 460–469.

Parasuraman A. (2004). *Assessing and improving service performance*. Performance Measurement and Metrics, Vol. 5 (No. 2): 45–52.

Parasuraman A., Zeithaml V.A., Malhotra A. (2005). *E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality*, "Journal of Service Research: JSR", Vol. 7 (No. 3): 213–233.

Parasuraman A., Zeithaml V., Berry L. (1985). *A conceptual model of service quality and its implications for future research*, "Journal of Marketing", Vol. 49, Autumn: 41–50.

Parasuraman A., Zeithaml V., Berry L. (1988). *SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality*, "Journal of Retailing", Vol. 64: 12–40.

Parasuraman A., Zeithaml V., Berry L. (1994). *Reassessment of expectations as a comparison standard in measuring service quality: implications for future research*, "Journal of Marketing", Vol. 58 (January): 111–124.

Reichheld F., Sasser W.E. (1990). *Zero defections: quality comes to service*, Harvard Business Review(September-October): 105–177.

Ryan C., Cliff A. (1997). *Do travel agencies measure up to customer expectations? An empirical investigation of travel agencies' service quality as measured by SERVQUAL*, "Journal of Travel and Tourism Marketing", Vol. 6 (No. 2): 1–31.

Teas K.R., DeCarlo T.E. (2004), *An Examination and Extension of the Zone-of-Tolerance Model: A Comparison to Performance-Based Model of Perceived Quality*, "Journal of Service Research: JSR", Vol. 6 (No. 3): 272–286.

Associate Professor Maurizio Lanfranchi
Department SEFISAST Faculty of Economics University of Messina (Italy)

Researcher Carlo Giannetto of Development
of Substainable Tourism Faculty of Economics University of Messina

Ph.D. scholarship Maria Luiza Souca
Babeş-Bolyai University, Cluj-Napoca, Romania

Summary

Introduced in 1985, together with the Gap Model, as a result of the research conducted on service quality by Parasuraman, Zeithaml and Berry, the SERVQUAL model has been used in identifying the ways in which service quality and, implicitly, customer satisfaction could be achieved and improved. However, as further research has proven, the model is not without flaws, a fact that has contributed to its several reassessments and the creation of a rival, based on the performance paradigm – the SERVPERF model (Cronin & Taylor, 1992). Since none of the proposed modifications for the SERVQUAL, nor the new models promoted by service literature and practice could be considered perfect solutions, the objective of this article is to evaluate the main criticism related to SERVQUAL, how the model has been modified and used, and to offer an opinion whether the SERVQUAL model is superior to the other proposed alternatives in both literature review and in practice with implications for the service industry.

SERVQUAL – POMIAR I OCENA JAKOŚCI USŁUG I ZADOWOLENIA KLIENTA

Streszczenie

Wprowadzony w 1985 roku wraz z modelem luk, model SERVQUAL powstał w wyniku badań nad jakością usług, jakie przeprowadzili A. Parasuraman, V. Zeithaml i L. Berry. Model SERVQUAL

stosowano w identyfikacji sposobów poprawy jakości usług i, pośrednio, zadowolenia klienta. Dalsze badania dowiodły jednak, że model nie jest bez wad, co przyczyniło się do jego wielokrotnych korekt i powstania konkurencyjnego, opartego na paradygmacie wydajności, modelu SERVPERF (Cronin i Taylor, 1992). Ponieważ żadnej z proponowanych poprawek do SERVQUAL, ani nowych modeli promowanych w praktyce i literaturze usługowej, można uznać za doskonałe rozwiązanie, celem niniejszego artykułu jest ocena krytyki związanej z SERVQUAL. Zbadano jak model był modyfikowany i stosowany i oceniono czy model SERVQUAL jest lepszy od innych proponowanych rozwiązań, zarówno w przeglądzie literatury i w praktyce, i jego wpływ na branżę usługową.