

A Critical Analysis of Scales Employed in Service Quality Literature

Sabeeha Fatima

Amity University, Noida (Uttar Pradesh)

Abstract

The outcomes of the empirical researches are dependent to a large extent on the accuracy of the scales employed. The present research paper attempts to identify the scales used in service quality researches. The exhaustive review of literature suggests that SERVQUAL is the most widely used scale in service quality researches. Although SERVQUAL has been criticized by a few researchers and do have some shortcomings, it continues to be used by researchers across various fields. SERVQUAL has been modified from time to time and across the verticals according to the needs and requirements of the research. SERVPERF, too, have emerged as a popular scale for service quality research as it overcomes few of the lacunae that SERVQUAL suffers of. The paper would be beneficial to researchers academic as well as field in conducting research in service quality cross the various industries.

Key Words

Service Quality, Scales, SERVQUAL, SERVPERF, Empirical Research

INTRODUCTION

It is often said that what cannot be measured, cannot be managed. Without measurement, managers are clueless about where they are heading to and whether gaps exist (Lovelock, Patterson and Walker, 2001). Organizations must keep a constant eye on quality of their outcomes in terms of products, services, processes, relationships and various other direct and indirect aspects of transaction. Monitoring service quality is also essential to ascertain that the desired goals are being met and what more need to be done (Lovelock *et al.*, 2001).

Although measuring service quality is quite a complex exercise, the term, quality itself is difficult to be quantified. It is essential to understand the concept of service quality in order to measure it.

What is Service Quality?

The concept of quality is subjective and there is no universally accepted definition for it. Verma (2009) supported the view that in case of services, quality lacks objectivity and it is a perceived notion to a great extent. Service quality has been defined in services marketing literature as an overall evaluation of service by the customers. Parasuraman, Zeithaml and Berry (1985) defined service quality as 'a function of the differences between expectation and performance along the quality dimensions'. This definition is found to be similar to those postulated by other research studies where it was concluded that perceived service quality emanates from comparing expectations about the service and the perception formed after actual experience of service performance (Asubonteng, McCleary and Swan., 1996; Rust & Oliver, 1994; Athanassopoulos, Gournaris, and Stathakopoulos, 2001; Akroush, 2008, Munusamy, Chelliah., and Hor Wai Mun,2010). Gronroos (2001) also defined service quality as 'the outcome of the comparison that consumers make between their expectations and perceptions'. It can be said that most of the studies formed customer's expectation as a basis for evaluating service quality. Quality is categorized as high when actual surpasses expectation and as low when it fails to meet customers' expectation (Athanassopoulos *et al.*, 2001). Similarly, Bitner, Booms and Mohr (1994) define service quality as 'the consumer's overall impression of the relative inferiority or superiority of the organization and its services'. Customers sometimes do not form an opinion about the services instantaneously rather they form an attitude over a long period of time depending upon their repeated experiences (Cronin and Taylor, 1994; Eshghi, Haughton and Topi, 2007). Similar views were shared by Czepiel (1990). Roest and Pieters' (1997) definition state that "service quality is a relativistic and cognitive discrepancy between experience-based norms and performances concerning service benefits". A similar definition has been given by Fogli (2006) wherein he define service quality as "a global judgment or attitude relating to a particular service; the customer's overall impression of the relative inferiority or superiority of the organization and its services. Service quality is a cognitive judgment". Gronroos (2007) defined service as, "a service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or

systems of the service provider, which are provided as solutions to customer problems". The different definitions of service quality given by various authors are summarized in Table 1.

Table 1

Author	Definition
Parasuraman, Zeithaml and Berry (1985)	A function of the differences between expectation and performance.
David Garvin (1988)	Quality may be defined from five perspectives : The transcendent view, product-based perspective, user-based perspective, manu-facturing-based perspective and value based perspective.
Czepiel (1990)	Perceptions of service encounters are formed over a period of time depending upon one's experiences.
Bitner, Booms and Mohr (1994)	The consumer's overall impression of the relative perception of the organization and its services.
Roest and Pieters' (1997)	Service quality is a relative and cognitive difference between experience-based norms and performances related to service benefits.
Herbig (1998)	Quality may be defined as conformance with pre defined specifications, quality from the viewpoint of the consumer, and quality as "innate excellence" or inborn exceptional goodness.
Fogli (2006)	Service quality is a cognitive judgement and depends upon customer's overall impression of the relative inferiority or superiority of the organization and its services.
Gronroos (2007)	The outcome of comparing the expectations and perceptions.

Source : Prepared by Researcher

SCALES

As it is said that things must be measured if they are to be managed, therefore service quality, too, need to be measured to ensure that service is provided as per the expectations of the customers. However as the notion of quality is highly subjective in services, it is difficult to apply quantitative methods to service quality. But in order to measure there must be a standard against which

various parameters may be compared. As in services, customers rate the overall experience on the basis of comparison between what he expected and what he actually received, it formed the foundation of various scales consequently used in service quality researches.

Most writers are of the view that customers' expectations are an amalgamation of a number of aspects (Sasser, Olsen and Wyckoff, 1978; Berry *et al.*, 1985; Johnston and Lyth, 1991). In the 1980s, one of the most thorough researches in service quality was conducted by Parasuraman *et al.*, (1985). This formed the basis for 22-item SERVQUAL scale for measuring service quality (Fig. 1).

SERVQUAL

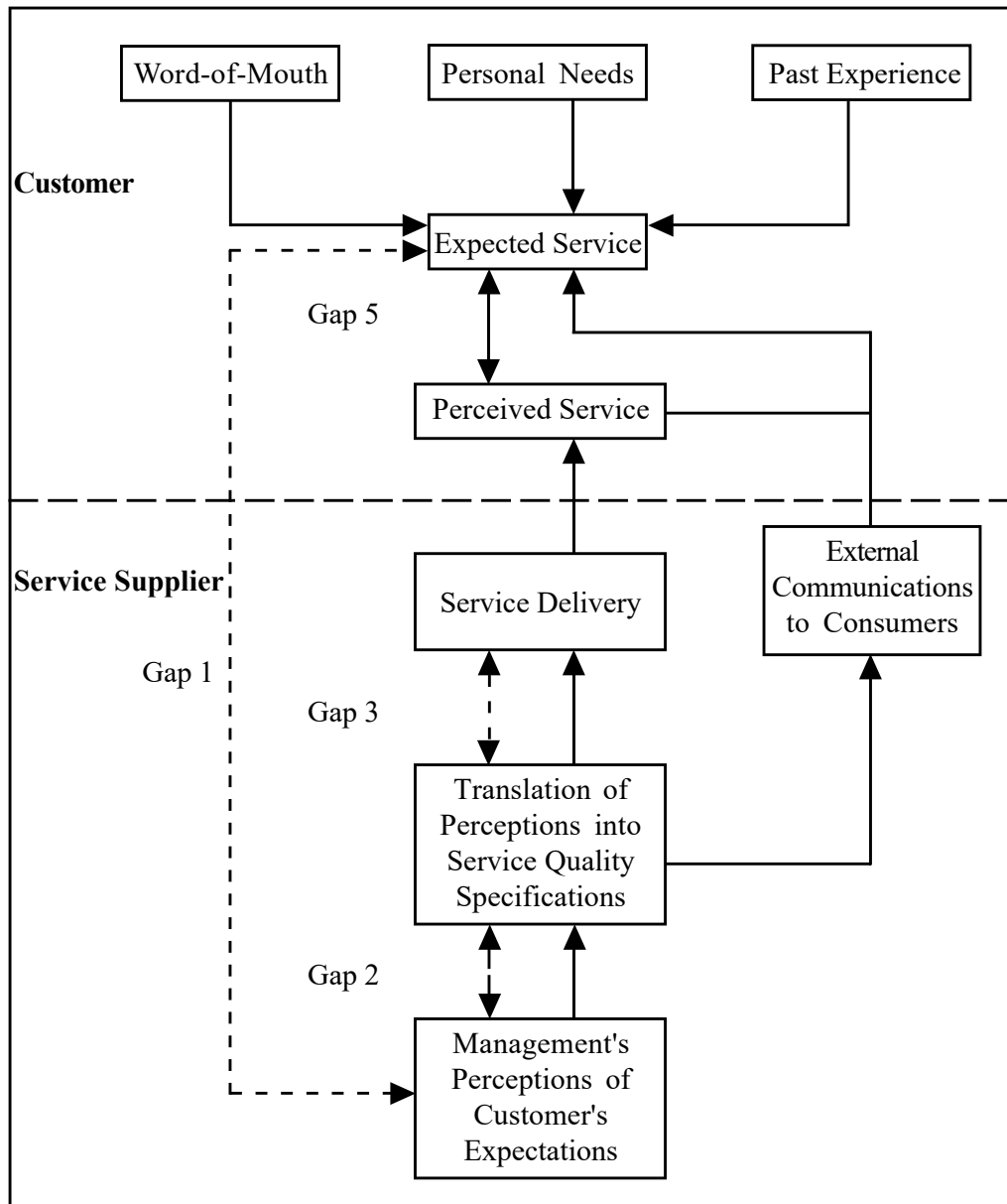
Conceptual Framework

SERVQUAL scale, measures the service quality by recording and analyzing the gaps that exist between customers' expectation of service quality and his perception of service quality actually rendered. It is the most commonly used scale to measure service quality (Danaher and Mattson, 1994) and has been incorporated by various services organizations to improve service quality (Parasuraman *et al.*, 1988).

Application

Various service industries have used SERVQUAL of which few are, health sector (Brown and Swartz, 1989; Carman, 1990; Babakus and Boller, 1992; Headley and Miller, 1993; Walbridge and Linda, 1993; Bowers, Swan, and Koehler, 1994; Lam, 1997; Kilbourne, Duffy, Duffy and Guarchi, 2004; Ramez, 2012); retailing (Finn and Lamb, 1991; Teas, 1993; Kaul, 2005; Naik, Gantasala and Prabhakar, 2010; Rajaram and Sriram, 2014) banking (Lam, 2002; Zhou, Ye and Jia, 2002; Ananth, Ramesh and Prabakaran, 2011; Jain, Gupta and Jain, 2012; Rathee, Deveshwar and Rajain, 2014); hospitality (Spreng and Singh, 1993; Mey, Akbar and Fie 2006; Rao and Sahu, 2013); sports (Kouthouris and Alexandris, 2005); telecommunications (Van Der Wal, Pampalis and Bond, 2000; Alnsour, Tayeh, and Alzyadat, 2014) discount and departmental stores (Finn and Lamb, 1991; Rajaram and Sriram, 2014; and information system (Van Dyke, Kappelman and Prybuto, 1997; Jiang, Klein and Crampton, 2000; Carr, 2002; James, Damoah and Robert, 2012). In addition, there have been several contextual studies (Leste and Wanderley, 1997; Stafford and Wells, 1998; Westbrook and Peterson, 1998; Mehta, Lobo and Khong, 2002; Evangelos, Simmy and Graham, 2004; Gayathri, Vinaya, and Lakshmisha, 2005; Goswami, 2007; Siddiqui, Khan and Sharma, 2010; Anantha, Arokiasamy and Huam Hon Tat, 2014) in the insurance industry.

Figure 1



Source : Parasuraman *et al.* (1985)

SERVQUAL scale has been presented in different dimensions – single-dimensional (Lam, 1997), two-dimensional (Babakus and Boller, 1992; Karatepe and Avci, 2002; Ekinci, Prokopaki, Cobanoglu, 2003; Evangelos, Simmy and Graham, 2004), three-dimensional (Bouman and Van Der Wiele, 1992), four-dimensional (Gagliano and Hathcote, 1994; Kilbourne *et al.*, 2004), six-dimensional

(Headley and Miller, 1993), seven-dimensional (Sasser *et al.*, 1978; Freeman and Dart, 1993), nine-dimensional (Carman, 1990), and nineteen-dimensional (Robinson and Pidd, 1998) construct.

Angur, Madhukar, Natarajan, Rajan, Jahera Jr, and John (1999) analyzed the feasibility of applying alternative service quality measure in the retail banking industry in India. They carried their research on the customers of two prominent banks in India. They applied SERVQUAL model to measure the overall service quality. They concluded that SERVQUAL is the best measuring service quality in banking sector. As mentioned earlier, Angur *et al.* (1999) stated that in developing countries SERVQUAL measures service quality in the retail banking sector best. As such it has been used by most of the researchers.

SERVQUAL has been modified from time to time (Parasuraman *et al.*, 1994), SERVQUAL has been extensively used for over 20 years and, in spite of the criticisms from various corners, its popularity has not diminished. Even in recent researches, SERVQUAL has been used in evaluating (perceived) service quality in internal marketing by international services firm (Frost and Kumar, 2000) and in a range of sectors all over the world including: automobile services (Saravanan and Rao, 2007); banking (Sureshchandar, Rajendran and Anantharaman, 2003; Prabhakaran and Satya, 2003; Baumann, Burton, Elliot and Kehr, 2007; Rathee R, Deveshwar and Rajain, 2014); electronic commerce (Alzola and Robaina, 2005, Lee, Jang, and Cho 2013); green grocers (Eastwood, Brooker and Smith, 2005); higher education (Arambewela and Hall, 2006; Petruzzelis, D'Uggento and Romanazzi, 2006; Al-Alak, and Alnaser, 2012); hospitals (Rohini and Mahadevappa, 2006,); insurance (Gayathri, Vinaya and Lakshmisha, 2006; Tsoukatos and Rand, 2007); local government services (Sullivan and Estes, 2007); retail stores (Gaur and Agrawal, 2006, Durvasula, S. and Lysonski, S., 2010); service in maritime ports (Ugboma, Ogwude, Ugboma and Nnadi, 2007) and ocean freight shipping (Durvasula, Lysonski and Mehta, 1999), a utility company (Babakus and Boller, 1992), pest control, dry cleaning and fast food (Cronin and Taylor, 1992). Recently, SERVQUAL has also been expanded and applied to internet retailing (Trocchia and Janda, 2003; Long and McMellon, 2004; Lee, Jang, and Cho 2013).

Criticism

Although SERVQUAL is very popular among researchers, these dimensions have been subjected to some criticism as well. Finn and Lamb (1991) pointed out that SERVQUAL instrument could not be used to assess quality in a many service firms. They were of the opinion that the model's five dimensions

were too less and simple to study quality in a retailing sector. They concluded that the five dimensions are too wide and suggested that they should be narrow down and refined. Cronin and Taylor (1992), in their research into service quality in banks, pest control, dry cleaning and fast food, also shared the same view about the five dimensions. In some studies the five-dimension model was not supported (Carman, 1990; Babakus and Boller, 1992; Brown *et al.*, 1993; Ryan and Cliff, 1996; Zhou *et al.*, 2002; Evangelos *et al.*, 2004; Jain and Gupta, 2004; Wang, Lo and Yang, 2004).

Bahia and Nantel (2000) carried out a research to postulate a well-defined measurement of perceived service quality in the retail banking sector in Canada. They commented that the SERVQUAL was inappropriate for retail banking.

Carman (1990), is of the view the entire concept of expectations-performance gap is vague and he challenged the effectiveness of the SERVQUAL scale. SERVQUAL has been questioned on methodological grounds (e.g., Teas, 1993; Iacobucci, Grayson and Ostrum, 1994; Smith, 1995; Van Dyke, Kappelman and Prybutok, 1997; Caruana, Ewing and Ramaseshan, 2000; Brady, Cronin and Brand, 2002; Page and Spreng, 2002; Saravanan and Rao, 2007), in addition to it there have been conceptual objections also, notably by Gronroos (2001), who gave a totally different, and more objective, conceptualization. Researchers like Carman, 1990; Cronin and Taylor, 1992; Zhou, 2004 have argued that a scale that would be able to measure service quality objectively would be more helpful than the Perception-Expectation gap measure. They also mentioned that SERVQUAL's five dimensions are imprecise (Teas, 1993; Gounaris, 2005) and incomplete (Sureshchandar, Rajendran and Anantharaman 2001; Sureshchandar *et al.*, 2002; Coulthard, 2004; Saravanan and Rao, 2007). Some of the authors also commented that that SERVQUAL is too much "process orientation" (Gronroos, 2001; Coulthard, 2004; Kang and James, 2004), or lays a lot of stress on the processes of service delivery rather than the technical outcomes of the service encounter.

Another issue with the SERVQUAL is the length of the SERVQUAL questionnaire, which seems to be very long. Answering a 22 expectations item and 22 perceptions item scale irritate and confuses respondents which affect the quality of data obtained (Bouman and Van der Wiele, 1992; Siu and Cheung, 2001). The scale measures expectation and perception separately and many a times the respondents get confused between the two. Some researchers are of the view that service quality is explained better by perceptions scores than measuring the gap between the perception and expectations. They affirm that "questions about service expectations may be based on memory or biased by actual service received" and the discrepancy between expectations and service perceptions may

not measure quality (Babakus and Boler, 1992, Cronin and Taylor, 1992, 1994; Teas, 1993).

Furthermore, the dimensions identified by SERVQUAL may fail to explain the concept of service quality across the various cultural and ethnical environments. Service quality is a perception based concept which is subjected to change with cultural and social norms; hence the same dimensions may not work under various cultures (Furrer, Ching- Liu and Sudharshan, 2002). Customer values, beliefs and perceptions change from one culture to another and from one country to another, so does the concept of quality.

Many authors agree that service dimensions are specific to each service industry and, as such, the number of dimension and their stability across service industries are different (Carman, 1990; Babakus and Boller, 1992; Van Dyke, Kapelman, and Prybutok, 1997). Even Parasuraman *et al.* (1994) have configured five dimensions to three, putting responsiveness, assurance and empathy into one single dimension. There are also other studies that advocate restructuring and revision of the SERVQUAL dimensions (Dabholkar, Thorpe, and Rentz, 1996). SERVQUAL contain some critical shortcomings that reduces its utility (Brown *et al.*, 1993). The application of the SERVQUAL dimensions for different services is doubtful (Siu and Cheung, 2001) since different studies revealed a poor fit of the five-factor structure proposed by Parasuraman *et al.* (1988).

Thus, it can be said that the SERVQUAL model has been subjected to criticism for various reasons, to sum up, the prominent amongst them are :

1. Lack of logical justification behind the measurement of expectations (Cronin and Taylor 1992, 1994),
2. Absence of concrete guidelines to measure expectations (Teas, 1993, 1994),
3. The degree of reliability and validity of the difference score formulation wherein the expectations are compared with the actual is questionable. (Babakus and Boller, 1992; Brown, Churchill and Peter, 1993) and
4. Lack of applicability of dimensions across various services encounters (Carman 1990, Finn and Lamb, 1991).

However, in spite of the mentioned criticism there have been a number of empirical studies that used SERVQUAL to evaluate service performance in the banking sector (Angur, Natarajan and Jahera, 1999; Jun *et al.*, 1999; Lee and Hwan, 2005, Durvasula and Lysonski, 2010).

SERVPERF

In the SERVPERF scale, service quality is measured by taking performance only scores based on the same 22 items and five dimensional structure of SERVQUAL. Since gap theory by Parasurman *et al.* (1988) of service quality was not supported by much empirical or theoretical evidences, need was felt for a better scale. Cronin and Taylor (1992) developed a "performance-based" service quality measurement scale called SERVPERF. The two scales differ as SERVQUAL measures the service quality by comparing the perceptions of the service received with expectations, while SERVPERF considers only the perceptions of service quality. The SERVPERF scale consists of 22 perception items excluding any consideration of expectations. Many researchers are of the view that SERVPERF is superior to SERVQUAL such as Avkiran (1999), Lee *et al.* (2000), Brady *et al.* (2002), and Adil, M., Al Ghaswyneh, M., F., O., and Albkour A., M. (2013). Researchers have questioned the necessity and appropriateness of analyzing service quality as an expectations-perceptions gap score (Carman, 1990; Bouman and Van der Wiele, 1992). Perceptions-only measure seems to be more practical, realistic and applicable. Cronin and Taylor (1992) claimed that their perception-only measure of service quality (SERVPERF) was better than the traditional SERVQUAL because the scale provided a more construct-valid explanation to service quality due to their content and discriminant validity.

CONCLUSION

The researchers have used both SERVQUAL as well as SERVPERF quite extensively in service quality researches. An analysis of recent service quality researches indicates that both the scales are more or less equally popular amongst the researchers. Many authors have formulated their own determining factors of service quality, though in some cases they appear to be similar to those of Berry *et al.* (1985) research work. According to Sureshchandar, Rajesndran, and Kamalanabhan (2001), though SERVQUAL take into account the human factor involved in service delivery and physical aspects of the services, many other important factors are also detrimental to the concept of service quality. In his effort to postulate a scale that may cover all sectors, Sureshchandar *et al.* (2001) identified five factors which include core service; systematization/standardization of service delivery : non-human element; role of personnel in delivery of services and social responsibility of service quality. Johnston and Silvestro (1990) added the customers' perspective to the 12 service quality characteristics. This was followed by the identification of an

additional five service quality determinants: attentiveness/helpfulness, care, commitment, functionality and integrity. Walker (1990) pointed out that the major determinants are product reliability, a quality environment and delivery systems that work together with good personal service – staff attitude, knowledge and skills. Albrecht and Zemke (1985) pointed out care and concern, spontaneity, problem solving and recovery.

Armistead (1990) classified the factors into "firm" and "soft". The firm factors are time (covering availability, waiting time and responsiveness), fault freeness (which includes physical goods, information and suggestions) and flexibility (resilience, customization, formulating strategy). The soft factors are style (attitude of staff, accessibility of staff and pleasant atmosphere), steering (the extent to which customer feels that things are controllable) and safety (trustworthiness, security and maintaining secrecy).

Some researchers aimed to investigate the difference between SERVQUAL and SERVPERF's predictive validity of service quality (Carrillat, Jaramillo and Mulki, 2007). The researcher concluded that SERVQUAL and SERVPERF were equally valid predictors of overall service quality.

References

- Adil, M.; Al Ghaswyneh, M., F., O.; and Albkour A. M. (2013), "SERVQUAL and SERVPERF : A Review of Measures in Services Marketing Research", *Global Journal of Management and Business Research Marketing*, Vol. 13, Issue 6, pp. 65-76.
- Akroush, M.,N., (2008), "Exploring the Mediating Effect of Service Quality Implementation on the Relationship between Service Quality and Performance in the Banking Industry in Jordan", *Global Business and Economic Review*, 10(1), pp. 98-122.
- Al-Alak, B. A.; and Alnaser, A. S. M. (2012), " Assessing the Relationship Between Higher Education Service Quality Dimensions and Student Satisfaction", *Australian Journal of Basic and Applied Sciences*, 6(1), pp. 156-164.
- Albrecht, K.; and Zemke, R. (1985), *Service America*. Homewood, III : Dow Jones- Irwin.
- Alnsour, M. S.; Abu Tayeh, B.; and Alzyadat, M. A. (2014), "Using SERVQUAL to Assess the Quality of Service Provided by Jordanian Telecommunications Sector", *International Journal of Commerce and Management*, Vol. 24, Issue 3, pp. 209-218.
- Alzola, L. M.; and Robaina, V. P. (2005), Servqual : Its Applicability in Electronic Commerce B2C, *The Quality Management Journal*, 12(4), 46.

- Ananth, A.; Ramesh, R.; and Prabakaran, B. (2011), "Service Quality Gap Analysis in Private Sector Banks – A Customers Perspective", *Indian Journal of Commerce & Management Studies*, Vol. II, Issue 1, pp. 245-252.
- Anantha Raj, A. Arokiasamy; and Huam H. T. (2014), "Assessing the Relationship Between Service Quality and Customer Satisfaction in the Malaysian Automotive Insurance Industry", *Middle-East Journal of Scientific Research*, Vol.20 (9), pp. 1023-1030.
- Angur, Madhukar G.; Nataraajan, Rajan, Jahera Jr.; and John, S. (1999), "Service Quality in the Banking Industry : An Assessment in a Developing Economy", *International Journal of Bank Marketing*, 17(3), pp. 116-123.
- Arambewela, R.; and Hall, J. (2006), " A Comparative Analysis of International Education Satisfaction Using SERVQUAL", *Journal of Services Research*, 6(3), pp. 141-163.
- Armistead, Colin G. (1990), "Service Operations Strategy : Framework for Matching the Servic Operations Task and the Service Delivery System," *International Journal of Service Industry Management*, 1(2), 6-16.
- Asubonteng, P.; McCleary, K. J.; and Swan, J. E.(1996), "SERVQUAL Revisited : A Critical Review of Service Quality", *The Journal of Services Marketing*, Vol. 10 No. 6, pp. 62-81.
- Athanassopoulos, A.; Gournaris, S.; and Stathakopoulos, V. (2001), "Behavioral Responses to Customer Satisfaction : An Empirical Study", *European Journal of Marketing*, Vol. 35(5/6), pp. 687-708.
- Babakus, E.; and Boller, G. W. (1992), "An Empirical Assessment of the SERVQUAL Scale", *Journal of Business Research*, Vol. 24 No. 3, pp. 253-68.
- Bahia, K.; and Nantel, J. (2000) , "A Reliable and Valid Measurement Scale for the Perceived Service Quality of Banks", *The International Journal of Bank Marketing*, 18(2), pp. 84.
- Baumann, C. S.; Burton, G. E.; and Kehr, H. M. (2007), "Prediction of Attitude and Behavioural Intentions in Retail Banking", *International Journal of Bank Marketing*, 25(3), pp. 102-116.
- Bitner, M. J.; Booms, B. H.; and Mohr, L. A. (1994), "Critical Service Encounters : The Employee's Viewpoint", *Journal of Marketing*, Vol. 58, pp. 95-106.
- Bouman, M.; and 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, pp. 4-16.
- Bowers, M. R.; Swan, J. E.; and Koehler, W. F. (1994), "What attributes determine quality and satisfaction with health care delivery?", *Health Care Management Review*, Vol.19(4), pp. 49-55.
- Brady, M. K.; Cronin, J. J.; and Brand, R. R. (2002), "Performance – Only Measures

- of Service Quality : A Replication and Extension", *Journal of Business Research*, 55, pp. 17-31.
- Brown, S. W.; and Swartz, T. A. (1989), "A Gap Analysis of Professional Service Quality," *Journal of Marketing*, Vol. 53 (April), pp. 92-98.
- Brown, T. J.; Churchill Jr. G. A.; and Peter, J. P. (1993), "Improving the Measurement of Service Quality", *Journal of Retailing*, Vol. 69, No. 1, pp. 127-39.
- Carman, J. M. (1990), "Consumer Perceptions of Service Quality : An Assessment of the SERVQUAL Dimensions", *Journal of Retailing*, Vol. 66, No. 1, pp. 33-55.
- Carrillat, F. A. F. Jaramillo; and J. P. Mulki (2007), The Validity of the Servqual and Servperf Scales : A Meta-Analytic View of 17 Years of Research Across Five Countries, *International Journal of Service Industry Management*, 18(5) : 472-90.
- Caruana, A. M.; Ewing, T.; and Ramaseshan, B. (2000), "Assessment of the Three-Column Format SERVQUAL : An Experimental Approach", *Journal of Business Research*, 49, pp. 57-65.
- Coulthard, L. J. M. (2004), "Measuring Service Quality : A Review and Critique of Research Using SERVQUAL", *International Journal of Market Research*, 46(4), pp. 479-497.
- Cronin, J. J.; and Taylor, S. A. (1994), "SERVPERF versus SERVQUAL, Reconciling Performance-Based and Perceptions-Minus-Expectations Measurement of Service Quality", *Journal of Marketing*, Vol. 58, pp. 125-31.
- Cronin, J. J. Jr.; and Taylor, S. A. (1992), "Measuring Service Quality : A Reexamination and Extension", *Journal of Marketing*, Vol. 56, No. 3, pp. 55-68.
- Czepiel, J. A.(1990), "Service Encounters and Service Relationships : Implications for Research", *Journal of Business Research*, Vol. 20, pp. 13-21.
- Dabholkar, P.; Shepherd, C. D.; and Thorpe, D. I. (2000), "A Comprehensive Framework for Service Quality : An Investigation of Critical Conceptual and Measurement Issues Through a Longitudinal Study", *Journal of Retailing*, Vol. 76 No. 2, pp. 139-73.
- Danaher, P. J.; and Mattson, J (1994), Customer Satisfaction during the Service Delivery Process, *European Journal of Marketing*, 28(5), 5-16.
- Durvasula, S.; Lysonski, S.; and Mehta S. C. (1999), "Testing the SERVQUAL Scale in the Business-to-Business Sector : The Case of Ocean Freight Shipping Service", *The Journal of Services Marketing*, Vol. 13(2), pp. 132-150.
- Durvasula, S.; and Lysonski, S. (2010), "Diagnosing Service Quality in Retailing : The Case Singapore", *Journal of International Business and Entrepreneurship Development*, Vol. 5, No. 1, pp. 1-17.
- Eastwood, D. B.; Brooker J. R.; and Smith, J. D. (2005), "Developing Marketing Strategies

- for Green Grocers : An Application of SERVQUAL", *Agribusiness*, Vol. 21(1), pp. 81-96.
- Ekinci, Y.; Prokopaki, P.; and Cobanoglu, C. (2003), "Service Quality in Cretan Accommodations : Marketing Strategies for the UK Holiday Market", *International Journal of Hospitality Management*, Vol. 22, No. 1, pp. 47-66.
- Eshghi, A.; Houghton, D.; and Topi, H. (2007), "Determinants of Customer Loyalty in the Wireless Telecommunications Industry", *Telecommunications Policy*, 31(2), pp. 93-106.
- Evangelos, T.; Simmy, M.; and Graham, R. K. (2004), "Quality Improvement in the Greek and Kenyan Insurance Industries", *Archives of Economic History*, Vol. 16, No. 2, pp. 93-116, also available at : <http://www.lums.lancs.ac.uk/publications/viewpdf/000297/>
- Finn, D. W.; and Lamb, C. W. (1991), "An Evaluation of the SERVQUAL Scale in a Retailing Setting" in Holman, R. and Solomon, M. R. (eds.), *Advances in Consumer Research*, Provo, UT : Association for Consumer Research, pp. 480-93.
- Fogli, L. (2006), *Customer Service Delivery*, San Francisco : Jossey-Bass.
- Freeman, K. D.; and Dart, J. (1993), "Measuring the Perceived Quality of Professional Business Services", *Journal of Professional Services Marketing*, Vol. 9, No. 1, pp. 27-47.
- Frost, F. A.; and Kumar, M. (2000), "INTSERVQUAL - An Internal Adaptation of the GAP Model in a Large Service Organisation", *The Journal of Services Marketing*, Vol. 14(5), pp. 358-377.
- Furrer, O.; Liu, B. Shaw-Ching; and Sudharshan, D. (2000), "The Relationships Between Culture and Service Quality Perceptions : Basis for Cross-Cultural Market Segmentation and Resource Allocation", *Journal of Service Research*, Vol. 2, pp. 355-371.
- Gagliano, K. B.; and Hathcote, J. (1994), "Customer Expectations and Perceptions of Service Quality in Retail Apparel Specialty Stores", *Journal of Services Marketing*, Vol. 8, No. 1, pp. 60-69.
- Gaur, S. S.; and Agrawal R. (2006) , "Service Quality Measurement in Retail Store Context : A Review of Advances Made Using SERVQUAL and RSQS", *Marketing Review*, Vol. 6(4), pp. 317-330.
- Gayathri, H.; Vinaya, M. C.; and Lakshmisha, K. (2006), "A Pilot Study on the Service Quality of Insurance Companies", *Journal of Services Research*, Vol. 5(2), pp. 123-138.
- Goswami, P. (2007), "Customer Satisfaction With Service Quality in the Life Insurance Industry in India", *ICFAI Journal of Services Marketing*, Vol. 5, No. 1, pp. 25-30.

- Gounaris, S. (2005), "Measuring Service Quality in B2B Services : An Evaluation of the SERVQUAL Scale Vis-à-vis the INDSERV Scale", *The Journal of Services Marketing*, Vol. 19(6/7), pp. 421-435.
- Gronroos, C. (2001), "The Perceived Service Quality Concept – A Mistake?", *Managing Service Quality*, Vol. 11(3), pp. 150-152.
- Grönroos, C. (2007), *Service Management and Marketing : Customer Management in Service Competition*, John Wiley & Sons.
- Headley, D. E.; and Miller, S. J. (1993), "Measuring Service Quality and its Relationship to Future Consumer Behavior", *Journal of Health Care Marketing*, Vol. 13, No. 4, pp. 32-41.
- Iacobucci, D.; Grayson, K. A.; and Ostrom, A. L. (1994), "The Calculus of Service Quality and Consumer Satisfaction : Theoretical and Empirical Differentiation and Integration", *Advances in Services Marketing and Management*, Swartz T. A. Bowen, D. E.; and Brown, S. W. Eds. pp. 1-68. Greenwich, CT: JAI Press.
- Jain, V.; Gupta, S.; and Jain, S. (2012), "Customer Perception on Service Quality in Banking Sector : With Special reference to Indian Private Banks in Moradabad Region," *International Journal of Research in Finance and Marketing*, Vol. 2(2), pp. 597-610.
- James, M. O.; Emmanuel, D. O.; and Robert, A. (2012), "Assessing Farmers' Satisfaction of Agronomic Services Received in Ghana Using the SERVQUAL Model – A Case Study of Kumasi Metropolis", *International Journal of Business and Social Science*, Vol. 3, No. 19, pp. 51.
- Jiang, J. J.; Klein, G.; and Crampton, S. M. (2000), "A Note on SERVQUAL Reliability and Validity in Information System Service Quality Measurement", *Decision Sciences*, Vol. 31, No. 3, pp. 725-44.
- Johnston, R. and Lyth, D. (1991), "Service Quality : Implementing the Integration of Customer Expectations and Operational Capability", in Brown, S.W. Gummesson, E. Edvardsson, B. and Gustavsson, B. (Eds), *Service Quality : Multidisciplinary and Multinational Perspectives*, Lexington Books, Lexington, MA.
- Kang, G. D.; and James, J. (2004), "Service Quality Dimensions : An Examination of Gronroos's Service Quality Model", *Managing Service Quality*, 14(4), pp. 266-277.
- Karatepe, O. M.; and Avci, T. (2002), "Measuring Service Quality in the Hotel Industry : Evidence from Northern Cyprus", *Anatolia : An International Journal of Tourism and Hospitality Research*, Vol. 13, No. 1, pp. 19-32.
- Kaul, S. (2005), "Measuring Retail Service Quality : Examining Applicability of International Research Perspectives in India", *IIMA Working Papers*, (2005).
- Kilbourne, W. E.; Duffy, J. A.; Duffy, M.; and Giarchi, G. (2004), "The Applicability of SERVQUAL in Cross-national Measurements of Health-care Quality", *Journal of*

Services Marketing, Vol. 18, No. 6/7, pp. 524-33.

- Kouthouris, C.; and Alexandris, K. (2005) "Can Service Quality Predict Customer Satisfaction and Behavioral Intentions in the Sport Tourism Industry? An Application of the SERVQUAL Model in an Outdoors Setting", *Journal of Sport Tourism*, Vol. 10(2), pp. 101-111.
- Lam, S. S. K. (1997), "SERVQUAL : A Tool for Measuring Patient's Opinions of Hospital Service Quality in Hong Kong", *Total Quality. Management*, Vol. 8(4), pp. 145-52.
- Lam, T. K. P. (2002), "Making Sense of SERVQUAL's Dimensions to the Chinese Customers in Macau", *Journal of Market-focused Management*, Vol.5, pp. 43-58.
- Lee, H, Jang, J.; and Cho, C.(2013), "Developing e-ServQual for Educational Websites", *Journal of Education and Vocational Research*, Vol. 4, No. 1, pp. 10-17.
- Lee, M. C.; and Hwan, I. S.(2005), "Relationship Among Service Quality, Customer Satisfaction and Profitability in the Taiwanese Banking Industry", *International Journal of Management*, Vol. 22(4), pp. 635.
- Leste, M. R.; and Wanderley, V. (1997), "The Interactive Approach to Service Quality and Management", *Deuxième Congrès International Franco-Quebecois de Génie Industriel*, ALBI 1997.
- Long, M.; and McMellon, C. (2004), "Exploring the Determinants of Retail Service Quality on the Internet", *Journal of Services Marketing*, Vol. 18, No. 1, pp. 78-90.
- Lovelock, C. H.; Patterson, P. G.; and Walker, R. H. (2001), *Services Marketing : An Asia-Pacific Perspective*, 2nd Ed. Australia : Prentice Hall.
- Mehta, S. C.; Lobo, A.; and Khong, H. S. (2002), "MSS, MSA and Zone of Tolerance as Measures of Service Quality : A Study in the Life Insurance Industry", Second International Services Marketing Conference, University of Queensland, July 4-5, also available at: <http://maritimebusiness.amc.edu.au/>.
- Mey, L. P.; Akbar, A. K.; and Fie, D. Y. G. (2006), "Measuring Service Quality and Customer Satisfaction of the Hotels in Malaysia : Malaysian, Asian and Non-Asian Hotel Guests", *Journal of Hospitality and Tourism Management*, Vol. 13 No. 2, pp. 144-60.
- Munusamy, J.; Chelliah, S.; and Hor Wai Mun, W. H. (2010), "Service Quality Delivery and Its Impact on Customer Satisfaction in the Banking Sector in Malaysia", *International Journal of Innovation, Management and Technology*, Vol. 1, No. 4, pp. 398-404.
- Naik, K. C. N.; Gantasala, B. S.; and Gantasala, V. P. (2010), "Satisfaction in Retailing", *European Journal of Social Sciences*, Vol. 16, No. 2, pp. 231.
- Page, T. J.; and Spreng, R. A. (2002), " Difference Scores Versus Direct Effects in Service Quality Measurement", *Journal of Service Research*, Vol. 4 (3), pp. 184-192.
- Parasuraman, A.; Zeithaml V.; and Berry, L. L. (1988), "SERVQUAL : A Multiple-Item

- Scale for Measuring Consumer Perceptions of Service Quality", *Journal of Retailing*, Vol. 64 (Spring), pp. 12-40.
- Parasuraman, A.; Zeithaml, V.; and Berry, L. L. (1985) "A Conceptual Model of Service Quality : Its Implications for the Future Research", *Journal of Marketing*, Vol. 49 (4), pp. 41-50.
- Parasuraman, A.; Zeithaml, V.; and Berry, L. (1994). "Reassessment of Expectations as a Comparison Standard in Measuring Service Quality : Implications for Further Research", *Journal of Marketing*, Vol. 58(1), pp. 111-124.
- Petruzzellis, L.; D'Uggento, A. M.; and Romanazzi, S. (2006), "Student Satisfaction and Quality of Service in Italian Universities", *Managing Service Quality*, Vol. 16(4), pp. 349-364.
- Prabhakaran, S.; and Satya, S. (2003), "An Insight into Service Attributes in the Banking Sector", *Journal of Services Research*, Vol. 3(1), pp. 157-169.
- Rajaram and Sriram (2014) "Measuring Retail Service Quality : A Study on Indian Departmental Stores", *International Journal of Business Management and Economic Research*, Vol. 5(1), pp. 16-19.
- Ramez, W. S. (2012), "Patients Perception of Healthcare Quality, Satisfaction and Behavioural Intentions : An Empirical Study in Bahrain", *International Journal of Business and Social Science*, 3(18).
- Rao, S. P.; and Sahu, C. P. (2013), "Impact of Service Quality on Customer Satisfaction in Hotel Industry", *IOSR Journal of Humanities And Social Science (IOSR-JHSS)*, Vol. 18, Issue 5, pp. 39-44
- Rathee R.; Deveshwar, A.; and Rajain, P. (2014) , "To Identify Service Quality Gaps in Banking Sector : A Study of Private Banks", *International Journal of Emerging Research in Management and Technology*, Vol. 3, Issue 7.
- Robinson, S.; and Pidd, M. (1998), "Provider and Customer Expectations of Successful Simulation Projects", *Journal of the Operational Research Society*, Vol. 49, No. 3, pp. 200-9.
- Roest, H.; and Pieters, R. (1997) , "The Nomological Net of Perceived Service Quality", *International Journal of Service Industry Management*, Vol. 8, No. 4, pp. 336-51.
- Rohini, R.; and Mahadevappa B. (2006), "Service Quality in Bangalore Hospitals – An Empirical Study", *Journal of Services Research*, Vol. 6(1), pp. 59-81.
- Rust, R. T.; and Oliver, R. L. (1994), "Service Quality : Insights and Managerial Implications from the Frontier", In Rust, R. T. and Oliver, R. L. (Eds.), *Service Quality : New Directions in Theory and Practice*, pp. 1-19, Thousand Oaks, CA : Sage.
- Ryan, C.; and Cliff, A. (1996), "Users and Non-users on the Expectation Item of the SERVQUAL Scale", *Annals of Tourism Research*, Vol. 23 No. 4, pp. 931-34.

- Saravanan, R.; and Rao, K. S. P. (2007), "Measurement of Service Quality from the Customer's Perspective : An Empirical Study", *Total Quality Management*, Vol. 18(4), pp. 435-449.
- Sasser, W. E.; Olsen, R. P.; and Wyckoff, D. D. (1978), *Management of Service Operations*, Allyn and Bacon, Boston, MA.
- Siddiqui, M. H.; Khan, V.; and Sharma, T. G. (2010), "Measuring the Customer Perceived Service Quality for Life Insurance Services : An Empirical Investigation", *International Business Research*, Vol. 3, No. 3, pp. 171-186.
- Silvestro, R.; Johnston, R.; Fitzgerald, L.; and Voss, C. (1990), "Quality Measurement in Service Industries", *International Journal of Service Industry Management*, Vol. 1 Issue 2, pp. 54-66.
- Siu, N. Y. M.; and Cheung, J. T. (2001), "A Measure of Retail Service Quality", *Marketing Intelligence and Planning*, Vol. 19, No. 2, pp. 88-96.
- Spreng, R.; and Singh, A. (1993), "Analysing Service Quality in the Hospitality Industry using the SERVQUAL Model", *Service Industries Journal*, Vol. 1, July, pp. 324-43.
- Stafford, M. R.; Stafford, T. F.; and Wells, B. P. (1998), "Determinants of Service Quality and Satisfaction in the Auto Casualty Claims Process", *Journal of Services Marketing*, Vol. 12, No. 6, pp. 426-40.
- Sullivan, B.; and Estes, C. (2007), "Measuring Customer Service Quality in Local Government", *Public Manager*, Vol. 36(1), pp. 37-39.
- Sureshchandar, G. S.; Rajendran C.; and Anantharaman, R. N. (2002), "Determinants of Customer – Perceived Service Quality : A Confirmatory Factor Analysis Approach", *The Journal of Services Marketing*, Vol. 16(1), pp. 9-32.
- Sureshchandar, G. S.; Rajendran, C.; and Anantharaman, R. N. (2003), "Customer Perceptions of Service Quality in the Banking Sector of a Developing Economy : A Critical Analysis", *The International Journal of Bank Marketing*, Vol. 21 No. 4/5, pp. 233-42.
- Sureshchandar, G. S.; Rajesndran, C.; and Kamalanabhan, T. J. (2001), "Customer Perceptions of Service Quality : A Critique", *Total Quality Management*, Vol. 12 No. 1, pp. 111-24.
- Teas, K. (1993) , "Expectations, Performance Evaluation and Consumer's Perceptions of Quality", *Journal of Marketing*, Vol. 57(4), pp. 18-34.
- Trocchia, P. J.; and Janda, S. (2003), "How Do Consumers Evaluate Internet Retail Service Quality?", *Journal of Services Marketing*, Vol. 17, No. 3, pp. 243-253.
- Tsoukatos, E.; and Rand, G. K. (2007), "Cultural Influences on Service Quality and Customer Satisfaction : Evidence from Greek Insurance", *Managing Service Quality*, Vol. 17(4), pp. 467-485.
- Ugboma, C.; Ogwude, I. C.; Ugboma, O.; and Nnadi, K. (2007), "Service Quality and

- Satisfaction Measurements in Nigerian Ports : An Exploration", *Maritime Policy and Management*, Vol. 34(4), pp. 331-346.
- Van der Wal, R. W. E.; Pampallis, A.; and Bond, C. (2002), "Service Quality in a Cellular Telecommunications Company : A South African experience", *Managing Service Quality*, Vol. 12, No. 5, pp. 323-35.
- Van Dyke, T. P.; Kappelman, L. A.; and Prybuto, V. R. (1997), "Measuring Information Systems Service Quality : Concerns on the Use of the SERVQUAL Questionnaire", *MIS Quarterly*, Vol. 21(2), pp. 195-209.
- Verma, H. (2008), *Services Marketing : Text and Cases*, Pearson Education.
- Walbridge, S. W.; and Linda, D. M (1993), "Measuring Physician Attitudes of Service Quality", *Journal of Health Care Marketing*, Vol. 13(1), pp. 6-15.
- Wang, Y.; Lo, H. P.; and Yang, Y. (2004), "An Integrated Framework for Service Quality, Customer Value, Satisfaction : Evidence from China's Telecommunication Industry", *Information Systems Frontiers*, Vol. 6, No. 4, pp. 325-40.
- Westbrook, K. W.; and Peterson, R. M. (1998), "Business-to-business Selling Determinants of Quality", *Industrial Marketing Management*, Vol. 27, No. 1, pp. 51-62.
- Zhou, L. Ye, Z.; and Jia, X. (2002), "A Critical Assessment of SERVQUAL's Applicability in the Banking Context of China", *Asia Pacific Advances in Consumer Research*, Vol. 5, pp. 14-21.