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## Service Quality Scale Development in Indian Retail Banking Sector: An Empirical Investigation

<sup>1</sup>J. Clement Sudhahar and <sup>2</sup>M. Selvam

<sup>1</sup>Karunya School of Management, Karunya Deemed University, Coimbatore, India

<sup>2</sup>Reader and Head, Department of Commerce, Bharathidasan University, Tiruchirappalli, India

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**Abstract:** The time has arrived for a re look on the research literature on service quality as the SERVQUAL instrument forms the basis on which all other works have been actualized. Interestingly, over the years, the conceptualization, measurement and applications of SERVQUAL across different industrial and commercial settings are not bereft of controversies. The current research work strives to bring to light some of the critical determinants of service quality that have been overlooked in the earlier models and proposes a revised comprehensive model and an instrument framework for measuring customer perceived service quality. Data for this study has been collected from customers of Indian retail banking sector. The present study offers a systematic procedure that could form the cornerstone for providing further insights on the conceptual and empirical comprehension of customer perceived service quality and its constituents.

**Key words:** Service quality, instrument, reliability, validity

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### INTRODUCTION

The business environment in the last decade has faced a paradigm shift, with quality consistently being considered as one of management's top-most competitive priorities and a prerequisite for sustenance and growth. Quality is proposed as the most potent tool for enhanced business performance (Corbett *et al.*, 1998).

In today's world of fierce competition, rendering quality service is a key for subsistence and success (Parasuraman *et al.*, 1985, 1988; Zeithaml *et al.*, 1998, 1990; Cronin and Taylor, 1992, 1994; Teas, 1993a,b; Berry *et al.*, 1983, 1985, 1994; Zeithaml *et al.*, 1996). The cardinal accent of both academia and business focused essentially on ascertaining the customers' perceptions of service quality and subsequently contriving strategies to meet and surmount customer expectancies. But most of these efforts have drawn more criticisms than acceptance by a large section of seasoned researchers.

In this background, the current research work aspires to develop an empirical model of service quality that could form the basis for a better understanding of the determinants of customer perceived service quality.

Therefore, the basic objective of this paper is to develop and purify the scale for measuring service quality.

### CONCEPTUAL BACKGROUND

Service quality is the function of perceptions, expectations and performance. Early writing on the topic

of service quality, defines service quality as a comparison of what customers feel a service provider should offer (i.e., their expectations) with how the provider actually performs (Gronroos, 1982; Uolevi and Lehtinen, 1982; Sasser *et al.*, 1978) and service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis. Parasuraman *et al.* (1985) defines service quality as perceived by customers, as the degree and directions of discrepancy between customers' service perceptions and expectations. It is also defined as difference between technical quality (what is delivered) and functional quality (how it is delivered) and as process quality (judged during the service) and output quality (judged after the service) (Gronroos, 1982; Uolevi and Lehtinen, 1982).

Importance of service Quality, direct relationship between service quality and profitability, helps in defensive and offensive marketing i.e., customer retention and increase of sales is done, striking a balance between customer perception and expectations, increasing purchases, free advertising through word of mouth. Too much newness can do more harm than good. Some of the problems are communication gap, service proliferation and complexity, improper selection and training of service workers, short-run view of the business. If a company gives a quality service, they can survive and run over any kind of crunch situation. For example Singaporean Airlines in spite of various vicissitudes in airline industry still stands as a king. It is all because of the service they have provided which the customers, valued much.

The concept of liberalization and globalization opened the market to intense competition throughout the world. So, today the customers are not ready to buy a product based on its physical characteristics, brand name, or price alone. The purchase is made mostly on customer's perception of quality attached to a product (Sudhakar, 2005). This customer focused definition of quality is said to have grown out of the service marketing literature (Gronroos, 1984; Parasuraman *et al.*, 1985). By this, we can rightly say that quality is the vital aspect for a product. Everybody started to give quality product to survive in the intense competition. So there needs a change apart from product quality to have an edge over competitors, thereby came into existence the concept of service quality. Service quality is the function of perceptions, expectations and performance. Early writing on the topic of service quality, defines service quality as a comparison of what customers feel a service provider should offer (i.e., their expectations) with how the provider actually performs (Gronroos, 1982, 1984; Uolevi and Lehtinen, 1982; Sasser *et al.*, 1978). Parasuraman *et al.* (1985) defines service quality as perceived by customers, as the degree and directions of discrepancy between customers' service perceptions and expectations i.e., P-E (Performance-Expectations).

### **SERVICE QUALITY MEASUREMENT MODELS**

In the tough competitive milieu, measurement of service quality has increasingly created an interest among the service providers and the scholars alike. It is so because service quality is being used to position their respective products in the market place (Stephen and Swartz, 1989). The different service quality models that have been developed to measure the quality of services in chronological order are as follows:

- The SERVQUAL Model (Parasuraman *et al.*, 1985).
- The SERVQUAL Model (Parasuraman *et al.*, 1988).
- The SERVPERF Model (Cronin and Taylor, 1992).
- The Human-Societal Element Model (Sureshchandar *et al.*, 2002a, b), Parasuraman *et al.*, (1985, 1988, 1990, 1991a, 1993, 1994a) have coined the concept of measuring 'service quality' very popularly referred to as SERVQUAL Model. They have started the unending journey of conceptualizing the measurement of service quality in 1985 with ten service quality dimensions, later on the customer's perception and expectation regarding the service was filtered and refined to five major service quality dimensions, as follows; tangibles, reliability, responsiveness, assurance and empathy. Again the

five major service quality dimensions were refined further and fine tuned by changing the statements to get more reliable and valid results but same criteria is used to check the psychometric properties of the SERVQUAL scale. All new models and any new theories will always prone to criticisms similarly the SERVQUAL model also widely criticized on different times by different authors. It is limited to one sector say banking alone; the score is biased because of wrong terminology used in the statements. Mostly it has preoccupied the psychometric and methodological soundness of scales. Cronin and Taylor (1992) commented on, that it is unnecessary to measure customer expectations in service quality research. Cronin and Taylor (1994) contended that measuring perceptions is sufficient they contend. SERVQUAL model is based on Disconfirmation Paradigm, which is not suitable for services and Teas (1993a,b) commented on interpretation and operationalization of the expectations standard.

The strong critiques of SERVQUAL model were Cronin and Taylor (1992), they had developed a new model and was popularly called as SERVPERF model. Their conceptualization of service quality model is, based on the performance component alone. They proposed what is popularly referred to as the 'SERVPERF' scale. It is a single item scale. They have developed their model based on Performance Model Satisfaction over the Disconfirmation Paradigm used by the SERVQUAL scale. They have reduced the number of items to be measured but they have used the same service quality dimensions of SERVQUAL viz., tangibles, reliability, responsiveness, assurance and empathy. The critique of this SERVPERF model is, it is preoccupied with psychometric and methodological soundness of scales. It is used and tested only in developed nations.

The Human-Societal Element Model (Sureshchandar *et al.*, 2001a, b and 2002a) was developed with a view to overcome the drawbacks of SERVQUAL scale as the SERVQUAL Instrument does not address certain important constituents of service quality, like service product or core service and systematization /standardization of service delivery. This model conceptualizes customer-perceived serviced quality based on the following five service quality dimensions they are; Core service or Service Product, Human element of Service Delivery, Systematization of Service Delivery, Tangibles of Service and Social Responsibility. In this background, the current empirical research work strives to bring to light some of the critical determinants of service quality that have been overlooked in the

Sureshchandar *et al.* (2002b) and proposes a revised comprehensive model and an instrument framework for measuring customer perceived service quality. The instrument has been designed with specific reference to the banking sector. Data have been collected from customers of Indian banking sectors. The proposed instrument has been empirically tested for unidimensionality, reliability and constructs validity. The present study offers a systematic procedure that could form the cornerstone for providing further insights on the conceptual and empirical comprehension of customer perceived service quality and its constituents. Finally suggests the future research directions so as to develop country and industry specific SQ models.

**SCALE DEVELOPMENT**

The procedure adopted for the development of scale;

- A definition of the construct and generation of statements for inclusion in an item pool.
- Selection of type of scaling to be used.
- Item analysis of the preliminary scale.
- Reliability testing of the scale and
- Validity of the final scale.

The various Service quality dimensions that are used and modified in the study are explained in the Table 1 and 2.

**SCALING PROCEDURE**

Based on the components mentioned in Table 1, Sureshchandar *et al.* (2001a,b and 2002a,b) have prepared 41 statements. The authors have arrived at set of 34 items after eliminating the redundant items by submitting the statements to experts in academics, business and banking sector managers, who were believed to have knowledge of the subject for fair judgment. The scaling procedure used by the authors is as follows;

As it was felt that a large number of statements were necessary to measure the construct Customer Perception of Service Quality, Likert scales were used for measuring the attitudes of the respondents for each item. Therefore, a 5-point Likert scale ranging from ‘strongly agree (= 5) to strongly disagree (= 1) with a mid point neither agree nor disagree (= 3) was used to measure the response to each statement. The respondents’ score on each statement were summed together to measure his or her perception towards service quality.

**ITEM ANALYSIS AND SELECTION**

All the 41 statements found in the preliminary inventory was given to conveniently selected members of 74 respondents who hail from different socio-economic-demographic characteristics. The summated item scores in respect of all the respondents were ordered from highest to lowest for this preliminary scale. After this, item

Table 1: Service quality scale dimensions

Critical factors	Explanation of the critical factors
Service delivery	This factor refers to all aspects (reliability responsiveness, assurance empathy, moment of truth, critical incident and recovery) that will fall under the domain of the human element in the service delivery
Servicescapes	The tangible facets of the service facility (equipment, machinery, signage, employee appearance, etc) or the man-made physical environment popularly known as the servicescapes
Service element	The core service portrays the content of a service. It portrays the what of a service. i.e., the service product is whatever features that are offered in a services
Service design	The processes, procedures, systems and technology that would make a service a seamlessness one. Customers would always like and expect the service delivery processes to be perfectly standardized streamlined and simplified so that they could receive the service without any hassles, hiccups or undesired/inordinate questioning by the service providers
Service credence	Social responsibility helps an organization to lead as a corporate citizen in encouraging ethical behaviour in everything it does. These subtle, but nevertheless forceful, elements send strong signals towards improving the organization’s image and goodwill and consequently influencing the customers overall evaluation of service quality and their loyalty to the organization

Table 2: Modified items in the service quality instrument

Items originally in Sureshchandar <i>et al.</i> (2001a, b; 2002a, b)	Modified items in the present instrument	Dimension in the revised instrument
Whenever a critical incident takes place (i.e., when a problem arises), the degree to which the organization succeeds in bringing the condition back to normal by satisfying the customer	Solving the problems immediately whenever it arises	Service delivery
Regularly apprising the customers about information on service quality and actual service performance versus targets in the organization	Regularly apprising the customers about information on service quality and actual service performance	Service delivery
Having house keeping as a priority and of the higher order in the organization	Maintaining the interiors in the most appealing form	Servicescapes
Equal treatment stemming from the belief, everyone, big or small, should be treated alike	Equal treatment to all customers, without any bias	Service delivery

analysis was conducted for each of the 41 statements between the highest and lowest groups through a t-test. Based on the results, 34 items were found significantly differentiating the two groups and thus were retained for the reliability analysis.

**SCALE RELIABILITY ANALYSIS**

The reliability of the scale was examined through three reliability tests, two to measure the internal consistency of the items and, one to measure the temporal stability of the scale. The split-half reliability test was conducted to estimate the scale’s internal consistency in a single point of time. This method estimates the equivalence that would exist if subjects were administered to different scales to measure the same construct to form 2 different sets. By computing the correlation coefficient for these two scores total for all the respondents the split-half reliability is established. Respondents for this analysis were 240 customers who were administered 36 statements. An split-half reliability using Guttman’s formula yielded the reliability coefficient of 0.91 as shown in Table 3, which is quite satisfactory.

The main drawback of this split-half method of examining the internal consistency of the scale is that the different coefficient are obtained depending upon how the items are split thereby making difficult to determine the real reliability coefficient. The Cronbach coefficient alpha (Lee, 1951) overcomes this weakness and is the most popular method of estimating scale’s reliability coefficient. The Cronbach alpha yielded a very high coefficient of 0.99 (which is similar to Guttman’s’), thus corroborating the scale’s reliability.

For establishing the temporal reliability of the scale, a re-test was conducted. The responses for this purpose were obtained from only 86 customers. Approximately 6 weeks after the first response were obtained, the same respondents who had responded to the first survey were

approached and responses were obtained. The correlation coefficient for the respondents’ total score of 36 items in the test-1 and the test-2 was computed as, 0.78 and 0.80, respectively, clearly indicating the scale stability over time.

**SCALE VALIDITY**

Validity implies the scale’s ability to measure what it intends to measure. For the purpose of this scales development, internal validity was adopted. Internal validity implies the internal analysis of the respondents’ consistency (William and Lamont, 1976). Two statements in the inventory (item No. 2 and item No. 14) were used to find out how closely they are related. The correlation coefficient calculated upon the respondents of the 240 respondents to these two statements was found to be 0.88 indicating the scale’s internal validity. The inventory developed by authors is presented hereunder.

**SERVICE QUALITY INVENTORY**

The service quality inventory developed by the authors of this research paper is appended here:

Certain items that are intended to measure your perception towards the purchase you made with a bank while availing the services. Please provide your response by putting a mere (✓) mark in the appropriate response box, which you think would better reflect your perception for each item. The description of the letters found above the responses-boxes can be read as:

VH = Very High; H = High; M = Moderate; L = Low and VL = Very Low or Nil.

- Intensity and depth of service (e.g., offering more number of service options for a given transactions.
- Availability of more service operations in most branches of the bank.

**Table 3: Summary of scale development procedure and results**

Stages of development	No. of items	Sample size	Types of analysis performed	Results of analysis
Item selection	36	22	Judgment and Editing	Elimination of redundant and ambiguous items and modified complicated statements
Item analysis	36	74	T – test for item difference in upper and lower quartiles	Thirty six items were significantly different at 0.001 alpha level.
Reliability testing				
a. Spilt-half	36	240	Guttman’s formula	Coefficient was estimated at 0.91
b. Internal consistency	36	240	Guttman’s formula	Coefficient was estimated at 0.99
c. Test-retest	36	86	Pearson’s correlation coefficient of total scale score for two administrations and correlation coefficients of means of each items for two administrations	Correlation coefficient of total score was 0.78 and of means of each item was 0.80
Validity testing:				
Internal validity	36	240	Correlation coefficient of score of two similar items in the scale	Correlation coefficient was 0.88

- Convenient operating hours and days (e.g., working on Saturdays and Sundays, extended service hours, etc.).
- Providing services as promised.
- The necessary skills and ability of the employees for actions whenever a critical incident takes place (i.e., when a problem arises).
- Solving the problems immediately whenever it arises
- Providing services right the first time.
- Providing services as per the promised schedule.
- Apprising the customers of the nature and schedule of services available in the organization.
- Prompt service to consumers.
- Willingness to help customers and the readiness to respond to customers' requests.
- Extent to which the feedback from customers is used to improve service standards.
- Regularly apprising the customers about information on service quality and actual service performance.
- Employees who instill confidence in customers by proper behavior.
- Making customers feel safe, secure, satisfied and delighted in their transactions.
- Employees who are consistently pleasing and courteous.
- Employees who have the knowledge and competence to answer customers' specific queries and requests.
- Effectiveness of customer grievance procedures and processes.
- Giving caring and individual attention to customers by having the customers' best interest at heart.
- Employees who understand the need of their customers.
- Having a highly standardized and simplified delivery process so that services are delivered without any hassles.
- Having a highly simplified and structured delivery process so that service delivery times are minimal.
- Enhancement of technological capability (e.g., computerization, networking of operations, etc.) to service customers more effectively.
- Degree to which the procedures and process are perfectly foolproof.
- Adequate and necessary personnel for good customer service.
- The ambient conditions such as temperature, ventilation, noise, odour, etc. prevailing in organization premises.
- Physical layout of equipment and other furnishings are comfortable for the customers to interact.
- Maintaining the interiors in the most appealing form.
- Employees who have a neat and professional appearance.
- Visually appealing materials and facilities associated with the service.
- Equal treatment to all customers, without any bias.
- Giving good service at a reasonably minimal cost, but not at the expense of quality.
- Having branch locations in most places convenient to all sections of the society (e.g., remote villages, down town areas, etc.).
- A sense of public responsibility among employees (in terms of being punctual, regular, sincere and without going on strikes).

## CONCLUSIONS

Service researchers of late attach paramount importance to the study and measurement of service quality as the crux of services marketing is solely dependent on customers' perception of quality and their satisfaction. While innumerable studies have been conducted right across the world using different models for the measurement of service quality, the authors have found only a handful of studies have been attempted in a developing country like India. Apart from this, the changing situational and economic factors necessitate the need to develop an exclusive scale for measuring the service quality in Indian context, considering the cultural norms, values and ethos shared by corporate and the Indian consumers at large. Though this inventory is empirically tested with the retail banking customers of India, the authors of this research paper exhort that this scale can be used by service researchers of any developing economy endeavoring to measure service quality of any service sector.

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