

# A Conceptual Framework on Review of E-Service Quality in Banking Industry

Vivek Agrawal, Vikas Tripathi, Nitin Seth

**Abstract**—E-service quality plays a significant role to achieve success or failure in any organization, offering services online. It will increase the competition among the organizations, to attract the customers on the basis of the quality of service provided by the organization. Better e-service quality will enhance the relationship with customers and their satisfaction. So the measurement of e-service quality is very important but it is a complex process due to the complex nature of services. Literature predicts that there is a lack of universal definition of e-service quality. The e-service quality measures in banking have great importance in achieving high customer base. This paper proposes a conceptual model for measuring e-service quality in Indian Banking Industry. Nine dimensions reliability, ease of use, personalization, security and trust, website aesthetic, responsiveness, contact and fulfillment had been identified. The results of this paper may help to develop a proper scale to measure the e-service quality in Indian Banking Industry, which may assist to maintain and improve the performance and effectiveness of e-service quality to retain customers.

**Keywords**—Banking, Service Quality, e-service quality, Dimensions.

## I. INTRODUCTION

GLOBALIZATION, privatization and liberalization have motivated for increased use of information technology, owing to its potential benefits like responsiveness, cost saving and better serviceability. Banks have realized that they can attract and gain customers by providing high quality of e-services [14]. E-service quality is becoming very vital in success or failure of any business enterprise.

Now banks are shifting their focus to e-service quality in place of traditional service quality in their complete transaction process.

In this era of information technology, customers are also quite concerned about the e-service quality provided by the respective banks. They have started maximizing and minimizing the transactions from the concerned banks based on e-service quality provided by them.

With the increasing number of banks offering online banking, this is quite difficult for the customers to select the most appropriate bank for the online transactions because the needs of the e-customers are diverse in nature; high quality of e-service has been increasingly recognized as one of the most

critical factor contributing to the success of any business based on e-transactions [50]. This paper proposes a conceptual model for measuring e-service quality (e-SQ) in Indian banking industry.

## II. LITERATURE REVIEW

Many researchers in the field of service quality have done numerous researches. As a result the literature is very rich in terms of model [11], [30]-[32], etc. and measurement [28], [9], [15], [23], [8], [51] etc. But the subject matter of e-service quality is relatively new; efforts had been made for compilation of the various measures of e-service quality.

### A. E-Service Quality and Definitions

Based on the traditional service definition of [13], [29] defines e-service as “deeds, effort or performances whose delivery is mediated by information technology (including the web, information kiosk and mobile devices). Such e-service includes the service element of e-tailing, customer support and service, and service delivery”. According to [52], e-service quality is “*the extent to which a website facilitates efficient and effective shopping, purchasing and delivery of products and services*”. This definition involves a complete service experience by customer during all the stages of the online shopping process and it consists of pre-website, on-website and post-website service aspects [52]. Another definition by [31] is “consumers’ overall judgment and evaluation of the excellence and quality of e-service offerings in the virtual marketplace”.

### B. E-Service Quality and Measures

There are number of methods that allow for the measurement of a company’s e-service profile as perceived by its customers. The best-known methods are: WEBQUAL, developed by [40], E-SERVQUAL, developed by [50], E-TailQ developed by [41] and E-S-QUAL developed by [28] and Other measurement instruments use the commercial performance of a website, measured by the number of clicks, or purchases generated by the website [19].

As we are concerned with only e-service quality, so emphasis is made only on e-service quality scales. E-SERVQUAL is a method for measuring website e-service quality that is based on the same principle as the original SERVQUAL method and includes some dimensions similar to those of SERVQUAL. The E-SERVQUAL scale contains a core and a recovery scale, measured and represented by four and three dimensions respectively. E-S-QUAL or core scale is used to measure the quality delivered by website. E-RecS-QUAL refers to specific situations, when a customer has a

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question pertaining to a problem, in which the three dimensions of the recovery scale become silent [28]. Some of the measures have been shown in Table I.

TABLE I  
E-SERVICE QUALITY MEASURES

Authors (year)	Country	Measures
[1]	USA	Technical adequacy, specific content, content quality, web appearance
[3]	UK	Usability, design, information, trust, empathy
[10]	Australia	Web store functionality, product attribute description, ownership condition, delivered products,
[16]	USA	Performance, access, security, sensation, information,
[43]	USA	Reliability, access, ease of use, personalization, security, credibility
[5]	USA	Web site design, trustworthiness, reliable service, Communication
[18]	USA	Reliable, attentiveness, ease of use, access, security, Credibility
[4]	Germany	Design, enjoyment, process, reliability, responsiveness
[6]	Taiwan	Website design, Reliability, Security/Privacy, Customer service, Customer perceived – value, Customer satisfaction,
[35]	Indonesia	Reliability, Responsiveness, Competence, Accessibility, Courtesy, Communication, Credibility, Security, Understanding, Tangibility
[51]	China	Convenience, Information accuracy, Security, Functionality, Accuracy, Product completeness, Failure prevention, Failure recovery, Service guarantee

### C. E-Service Quality in Banking

Review on Internet banking e-service quality dimensions that were used to measure e-service quality at the country level shows that besides the dimensions used in E-SERVQUAL, some researchers found site aesthetics, assurance and personalization also to be of importance. The study of [17], on Internet banking e-service quality in USA indicated that three dimensions constituted the e-service quality; namely Efficiency, Contact and Customization. Efficiency also was found to be a major component of Internet banking e-service quality in Hong Kong [26], Sweden [20], and Taiwan [42]. The study also revealed that usefulness, ease of use, reliability, responsiveness, security and privacy emerged as dimension of Internet banking in Hong Kong. The study of [42] on Internet banking in Taiwan indicated that dimensions that constitute Internet banking e-service quality were Efficiency, Fulfillment, System Availability, Privacy, Contact, Compensation, Site Aesthetics, and Customization.

Since, few studies have been done on e-service quality within banking especially in India, so this study is needed to find out the dimensions for measuring the e-service quality.

### III. CONCEPTUAL MODEL

Literature indicates the lack of dimensions for measurement of e-service quality. Researchers used various dimensions for e-SQ based on the field of their study. Moreover, some

researchers identified different dimensions for the same field. Furthermore, the dimensions of the common measures are subject to change based on researchers study. It has been indicated that e-service quality dimensions tend to be dependent on various industries and different service types within the same industry [46].

Based on reviewing the literature, and the selected measures for e-service quality mentioned in Table I, a conceptual model for measuring e-SQ in Indian Banking Industry is formulated after the focus group discussion with the bank managers, as shown in Fig. 1.

The dimensions of this model are those measures that have a high impact on measuring the e-service quality in Indian banking industry. Moreover, this research combines many common dimensions used by other researchers under the following dimensions. These dimensions are reliability, ease of use, personalization, security and trust, website aesthetic, contact, responsiveness, contact and fulfillment.

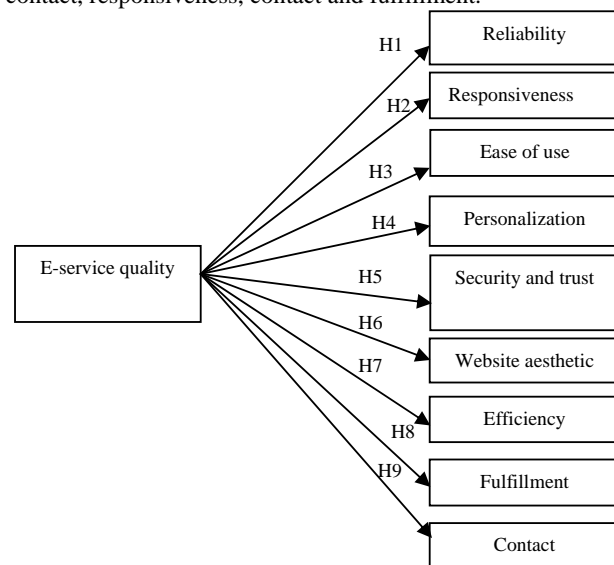


Fig. 1 Proposed Framework for E-service Quality in Indian Banking Context

#### A. Reliability

It refers to the ability to perform a promised service accurately and consistently, including frequency of updating the web site, prompt reply to customer enquiries, and accuracy of online financial transactions [22], [29], [36], [38], [2]. For this the following hypothesis is proposed:

H1. There is a positive impact of reliability on e-service quality.

#### B. Responsiveness

It relates to flexibility, prompt delivery, consistency and accuracy of service delivered [25], [36], [34], [37], [48], [47], [2], [27], [22], [28], [24]. For this the following hypothesis is proposed:

H2. There is a positive impact of responsiveness on e-service quality.

### C. Ease of Use

Site contains functions that help customers find what they need without difficulty, has good search functionality, and allows the customer to maneuver easily and quickly back and forth through the pages [49], [44], [9], [2], [33]. For this the following hypothesis is proposed.

H3. There is a positive impact of ease of use on e-service quality.

### D. Personalization

This dimension involves individual designs for clients in accordance with their pattern of consumption and preferences, which also results in an optimum online service, saves the customer time and increases their perception of service quality [27], [45], [12], [22]. For this the following hypothesis is proposed:

H4. There is a positive impact of personalization on e-service quality.

### E. Security and trust

It addresses the technical specifications of a website's security, trust and payment methods. This dimension also incorporates company's reputation, confidence and general confidentiality among consumers and those operating from within the company, engaging in the communication process [45], [41], [39], [2], [21], [22], [33], [24]. For this the following hypothesis is proposed:

H5. There is a positive impact of security and trust on e-service quality.

### F. Website Aesthetic

A multidisciplinary pursuit pertaining to the planning and production of websites, including, but not limited to technical development, information structure, visual design, and networked delivery [7], [36], [41], [48], [2]. For this the following hypothesis is proposed:

H6. There is a positive impact of website aesthetic on e-service quality.

### G. Efficiency

A website is simple to use, structured properly, and requires minimum information to be input by the customer [12], [28]. For this the following hypothesis is proposed:

H7. There is a positive impact of efficiency on e-service quality.

### H. Contact

The availability of assistance is through telephone or online representatives [28]. For this the following hypothesis is proposed:

H8. There is a positive impact of contact on e-service quality.

### I. Fulfillment

This dimension refers to the extent to which the sites' promises about order delivery and item availability are fulfilled [28]. For this the following hypothesis is proposed:

H9. There is a positive impact of fulfillment on e-service quality.

## IV. PROPOSED FUTURE WORK

To test the reliability and validity of the proposed conceptual model, data can be collected from the professionals, customers of Internet banking through interviews, structured questionnaires. Statistical software like SPSS, AMOS, Gretl etc. can be used for testing the reliability, validity and to perform the factor analysis. Analyzing the proposed structural model can test the hypothesis. The findings may assist in defining the significance and influence of dimensions of e-service quality in banking.

## V. CONCLUSION

A conceptual model is proposed for measuring the e-service quality in Indian banking sector after the focused group discussion. The 9 dimensions in the proposed model are based on the literature and the previous researches in the related areas. The proposed dimensions may have influence on e-service quality. Determining the significant dimensions can help the bank to improve the e-service quality, especially the validation of these dimensions is considered from both users and employees' point of view. The findings will lead to build a proper scale to measure the e-service quality in Indian banking industry, which will further help to improve the concert and efficiency of e-service quality to achieve the satisfaction of users. Consequently, it will lead to attain a competitive advantage for the banks in their respective target markets.

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