

ONLINE BANKING SERVICE QUALITY: A REVIEW

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ABSTRACT

The service quality has been widely used to assess the performance of various service organizations including banks. The widespread use of Internet in the service sector posed various challenges to service quality researchers. Various models of online service quality have been proposed time to time by various researchers. Internet banking is one of the growing services that need to provide better service by improving online service quality for higher customer satisfaction and retention. This paper reviews some of the important studies conducted in various countries across the world for finding the dimensions of online banking service quality. On the basis of review, it has been found that there is no consensus among researchers on dimensions of online banking service quality. The paper suggests the need for further research to develop a generally accepted scale based on standard dimensions for measuring online banking service quality.

KEYWORDS: Online Banking, Service Quality Dimensions.

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INTRODUCTION

Quality of services has been the focus of research during the last many decades. With time various models have been developed to explain the quality of services. Two main conceptualizations of service quality mainly exist in the literature, of which one is based on the disconfirmation approach (Scale to measure difference between Perception and Expectations), and the other is based on performance only approach (Scale to measure only Perception). Both these scales have been used extensively for measuring service quality. The dimensions and measurement scale of the service quality help the service organisations to improve service quality and customer satisfaction. Every automated service delivery channel has its own attributes (Dabholkar,1996) and hence it is required to separate out the individual attributes of every delivery channel or other compounding factors which affect the perception of quality. The increased importance of information and communication technology for the delivery of financial services has led to the growing interest of researchers and managers in e-banking quality issues (Jayawardhena,2004). Online banking acceptance among people is growing day by day and this growth has been accompanied by increased business interest in measuring and managing online banking service quality. This interest is also reflected in a large number of academic studies pertaining to measuring online banking service quality. With time various scales and dimensions of online banking service quality have been proposed by various researchers. This paper aims at reviewing various online banking service quality scales and their dimensions proposed by various researchers.

LITERATURE REVIEW

In the present paper we have reviewed 12 studies on online banking service quality conducted in different countries across the world over a period of more than 10 years. Details of these studies are given below.

Jun and Cai (2001) conducted research for finding the key determinants of Internet banking service quality. Customer anecdotes of critical incidents in Internet banking were content-analyzed by them. They identified seventeen service quality dimensions of Internet banking

service quality. These are reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, collaboration, continuous improvement, content, accuracy, ease of use, timeliness, aesthetics, security and divers features. They suggested that some dimensions like responsiveness, reliability and access are critical for both traditional and Internet banks. They identified seventeen dimensions could be divided into three categories: *customer service quality*, *online systems quality* and *banking service product quality*. They also revealed that, in terms of frequency of references to the 17 dimensions, no substantial differences exist between Internet-only banks and traditional banks offering Internet banking service. The most frequently mentioned dimensions, as the main sources of satisfaction or dissatisfaction, were reliability, responsiveness, access, and accuracy.

Broderick and Vachirapornpuk (2002) conducted qualitative research in UK on Service quality in Internet banking taking into consideration the importance of customer role. Drawing on theoretical frameworks of service quality and adapting these to particularly reflect the remote delivery format of the Internet, this study proposed and tested a service quality model of Internet banking. Their research used participant observation and narrative analysis of a UK Internet banking Web site community to explore how Internet banking customers perceive and interpret the elements of the model. Findings showed that the level and nature of customer participation had the greatest impact on the quality of the service experience and issues such as customers' zone of tolerance, the degree of role understanding by customers and emotional response potentially determined, expected and perceived service quality. Their study revealed that the dimensions important to the online banking customers are reliability, efficiency, responsiveness, assurance, ease of use and information.

Jayawardhena (2004) transforms the original SERVQUAL scale in the Internet context and develops a battery of twenty-one items to assess service quality in e-banking. By means of an exploratory (EFA) and confirmatory factor analysis (CFA), these twenty-one items are condensed to five quality dimensions such as access, website interface, trust, attention and credibility.

Yang et al. (2004) attempted to set forth a reliable and valid means of measuring online service quality based on a broad conceptual framework which integrates theory and conceptualization in customer service quality, information systems quality, and product portfolio management, into online service quality. Authors conducted ethnographic content analysis of 848 customer reviews of online banking services to identify salient online service quality dimensions. The most frequently cited online service quality attributes, along with literature review and personal interview results were utilized to develop the survey questionnaire. Subsequent to the pre-test, a Web-based survey was undertaken to verify and test the online service quality model. A confirmatory factor analysis produced six key online service quality dimensions: reliability, responsiveness, competence, ease of use, security, and product portfolio.

Han and Baek (2004) introduced the modified version of the SERVQUAL instrument for online banking and, from the exploratory and confirmatory factor analysis, their study suggested a four-factor model of SERVQUAL including Tangibles, Reliability, responsiveness, and Empathy. Data for model testing were obtained through an online survey. With the help of one of the major commercial banks in Korea, a survey was administered via the bank's website. Furthermore, they explored the relationships among customer satisfaction, customer retention, and service quality.

Liao and Cheung (2005) presented a user-based core framework for evaluating service quality in internet banking. They designed a questionnaire to solicit information on the individual perceptions regarding service quality in Internet banking. Respondents were requested to submit their assessments based on a seven-point Likert scale ranging from "strongly disagree" to "strongly agree". The questionnaire was distributed to 500 individuals with experience of Internet banking in Hong Kong. 120 meaningful replies were received. Empirical results suggest that perceived usefulness, ease of use, reliability, responsiveness, security and privacy, and continuous improvement of e-banking services significantly influence customer attitudes towards Internet banking.

Sohail and Shaikh (2007) used empirical research to analyse service quality of internet banking services provided by banks in Saudi Arabia. The instrument used for the survey consisted of 27 items, with responses recorded on a seven-point scale with “1” indicating “strongly disagrees” and “7” indicating “strongly agree”. Overall, 2,000 questionnaires were distributed and 939 responses were received. Of these responses 319 were non-users and the remaining 620 were complete responses. Results based on a factor analysis identified three factors that influence users’ evaluation of service quality of internet banking services. These factors were labelled as “efficiency and security”, “fulfilment” and “responsiveness”.

Wu et al. (2008) used ZPM E-Service Quality Model as the foundation to assess websites. They generalized factors that influence customers' quality satisfaction towards services and carried out questionnaire survey on the users, administrators, and employees of Internet bank. A service quality table that assesses Internet bank was established through the evidence-based study result. Researchers also verified that information gap, design gap and fulfillment gap are significant. The result found out eight dimensions, including "efficiency", "reliability", "privacy", "compensation", "responsiveness", "contact", "sense of beauty" and "individualization", are the key factors that influence the service quality of Internet bank.

Loonam and O’Loughlin (2008) investigated customers’ perceptions of internet banking self-service within the Irish financial services sector. This qualitative study of the Irish retail banking sector explored consumers’ e-banking interactions and experiences in addition to assessing the dimensions critical to e-banking service quality. Based on an extant review of the literature ten e-service dimensions were proposed and evaluated empirically in the context of e-banking service quality. Ten dimensions are web usability, security, information quality, access, trust, reliability, flexibility, responsiveness, service recovery, and personalisation/ customisation. They also found Overall, process quality emerged as key within the online context, with nine out of the ten proposed e-banking dimensions relating to the service process.

Khan et al. (2009) aimed at evaluating the service quality of internet banking (i-banking) services in India from customer's perspective. A structured questionnaire containing 44 quality items was administered to various target groups. Seven quality dimensions, viz. reliability, accessibility, user friendliness, privacy/security, efficiency, responsiveness and fulfilment, were identified based on principal component factor analysis. Authors conducted Demographic analysis of data and found that gender is hardly a bias for use and evaluation of service quality of i-banking in most of the cases across various categories of customers. Authors proposed a valid mathematical model to assess the overall service quality using regression analysis. The results showed that customers are satisfied with quality of service on four dimensions such as reliability, accessibility, privacy/security, responsiveness and fulfilment, but least satisfied with the 'user-friendliness' dimension.

Ho and Lin (2009) developed a multiple item scale for measuring internet banking service quality. This research used Taiwan's internet banking users as survey targets for its empirical studies. An online questionnaire was used as the data collection instrument for this study. The sample consisted of 500 individuals who were randomly selected from a consumer panel of 500 e-bank users. The number of respondents was 135. After deducted five invalid questionnaires from respondents, the number of valid questionnaires was 130, and the Response rate was 26 percent. Through the process of factor analysis, the refined scale was identified. Authors identified five dimensions and 17 items in the measurement scale for measuring the service quality of internet banking. The five dimensions were named customer service, web design, assurance, preferential treatment, and information provision.

Sadeghi and Farokhian (2011) developed a service quality model for online banking based on different service quality models and theories such as technology acceptance model (TAM), theory of reasoned action (TRA) and theory of planned behaviour (TPB). They developed a model with 7 factors on the following dimensions: Convenience, accessibility, accuracy, security, usefulness, bank image and web site design. They also found that some of these factors have a significant statistical difference between males and females.

DIMENSIONS OF ONLINE BANKING SERVICE QUALITY

With time various researchers have developed various scales to measure online banking service quality. On the basis of review of the above mentioned studies on online banking service quality, it has been found that different studies have considered different service quality dimensions of online banking. The various dimensions proposed by various researchers have been mentioned in Table 1. Chart 1 shows the frequency of all the dimensions found on the basis of above 12 studies.

TABLE 1
ONLINE BANKING SERVICE QUALITY DIMENSIONS

Dimensions	Jun & Cai (2001)	Broderick & Vachirapornpuk (2002)	Jayawardhena (2004)	Yang et al. (2004)	Han & Baek (2004)	Liao & Cheung (2005)	Sohail & Shaikh (2007)	Wu et al. (2008)	Loonam & O'Loughlin (2008)	Khan et al. (2009)	Ho & Lin (2009)	Sadeghi & Farokhian (2011)
Convenience/Ease of Use/ User Friendliness	✓	✓		✓		✓				✓		✓
Accuracy	✓											✓
Efficiency		✓					✓	✓		✓		
Accessibility/Access	✓		✓						✓	✓		✓
Customization/Individualization								✓	✓			
Reliability	✓	✓		✓	✓	✓		✓	✓	✓		
Responsiveness	✓	✓		✓	✓	✓	✓	✓	✓	✓		
Competence	✓			✓								
Courtesy	✓											
Credibility	✓		✓									
Communication	✓											

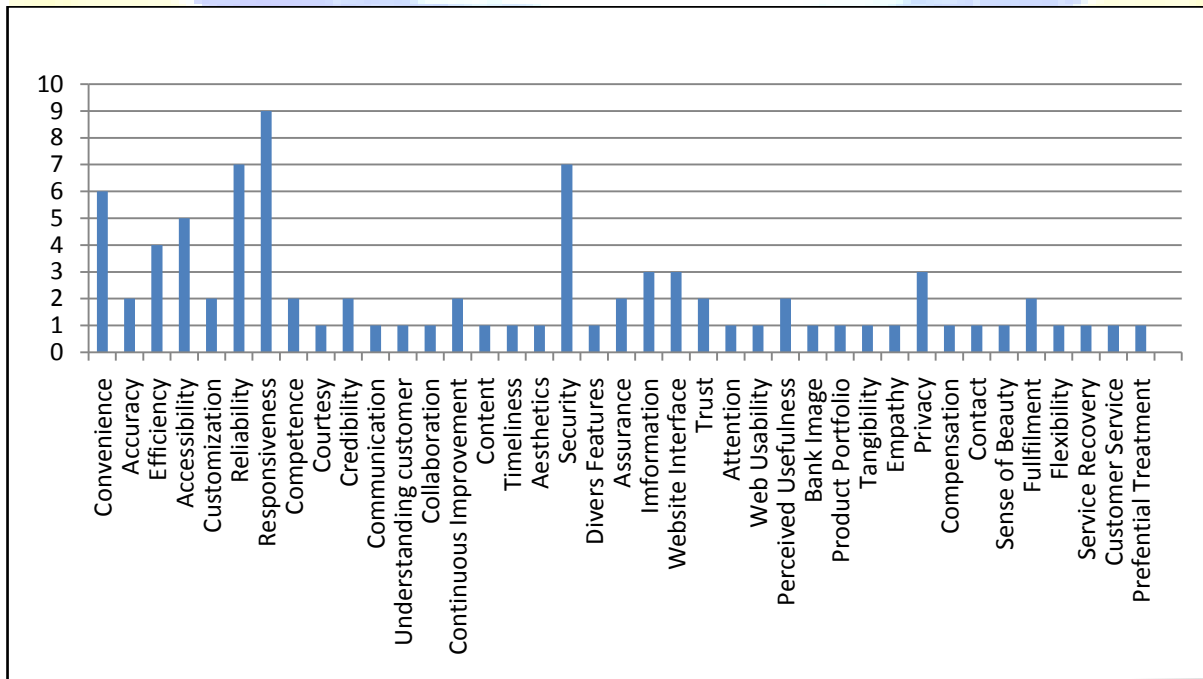
Understanding the customer	✓												
Collaboration	✓												
Continuous Improvement	✓					✓							
Content	✓												
Timeliness	✓												
Aesthetics	✓												
Security	✓			✓		✓	✓		✓	✓		✓	
Divers Features	✓												
Assurance		✓									✓		

Table 1(Continued)

Dimensions	Jun & Cai (2001)	Broderick & Vachirapornpuk (2002)	Jayawardhena (2004)	Yang et al. (2004)	Han & Baek (2004)	Liao & Cheung (2005)	Sohail & Shaikh (2007)	Wu et al. (2008)	Loonam & O'Loughlin (2008)	Khan et al. (2009)	Ho & Lin (2009)	Sadeghi & Farokhian (2011)
Information		✓							✓		✓	
Website Interface/Web Design			✓								✓	✓
Trust			✓						✓			
Attention			✓									
Web Usability									✓			
Perceived Usefulness						✓						✓
Bank Image												✓
Product Portfolio				✓								
Tangibility					✓							
Empathy					✓							
Privacy						✓		✓		✓		

Compensation									✓				
Contact									✓				
Sense of Beauty									✓				
Fulfilment							✓				✓		
Flexibility										✓			
Service Recovery										✓			
Customer Service												✓	
Preferential Treatment												✓	

CHART 1
FREQUENCY OF ONLINE BANKING SERVICE QUALITY DIMENSIONS



In these 12 studies the number of online banking service quality dimensions varies from 3 to 17. There are in total 39 online banking service quality dimensions proposed by researchers in these studies. Whereas out of these 39 dimensions, only 4 dimensions namely Responsiveness, Reliability, Security and Convenience have been included in majority of the studies.

CONCLUSION

On the basis of review, it may be concluded that there is no consensus among researchers with regard to dimensions of online banking service quality. For the purpose of measurement of service quality of services involving face-to-face interactions between the service provider and the customer, SERVQUAL and SERVPERF scales are most commonly used. But there are no generally accepted dimensions and no such standard scale for measuring service quality in case of online banking. So it is suggested that there is need for further research in order to develop a scale based on standard dimensions that can be universally applied for measuring online banking service quality.

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