

Journal of Internet Banking and Commerce

An open access Internet journal (http://www.icommercecentral.com) Journal of Internet
Banking and Commerce, May 2020, vol. 25, no. 2

A Conceptual Model of E-Service Quality at Branchless Banking in Indonesia

Dedy Ansari Harahap

Department of Management, Faculty of Economics and Business, Universitas Islam Bandung, Indonesia

Email: deanhar@yahoo.com

Ratih Hurrivati

Faculty of Economic Education and Business, Universitas Pendidikan Indonesia, Bandung, Indonesia

Dita Amanah

Department of Management, Faculty of Economics, Universitas Negeri Medan, Indonesia

Abstract

The digital era, the banking industry revolution and the globalization of the market, have an impact on all companies as well as on the branchless banking industry. Most companies try to attract customers and win the competition in the highly competitive electronics market. The purpose of this article is to examine the theoretical foundations of electronic service quality and develop conceptual models. Better quality electronic services will increase satisfaction and create good relationships with customers. Although the quality of electronic services is increasingly attracting the attention of researchers, research in this area is largely focused on identifying the dimensions of electronic service quality without paying deeper attention to the mechanisms behind perceived quality. Measuring the quality of electronic services in banking is very important in achieving a high customer base. This article proposes a conceptual model to measure the quality of electronic branchless banking services, helps develop an appropriate scale to measure the quality of electronic services in the branchless banking industry, helps maintain and improve the performance and effectiveness of electronic service quality to retain customers.

Keywords: Indonesia, Branchless Banking, Electronic Banking, E-Service Quality, Conceptual Paper

INTRODUCTION

The rapid development of technology has made the internet as the best channel to provide banking services and products to customers. Banks inevitably have to adapt their business needs to technological advancements through the operating system by using the internet as part of a strategic plan. The industrial revolution that is now developing will change the way banks operate and compete, so that it will have an impact on traditional branch networks decreasing rapidly [1]. States that the internet is a very serious threat both to the customer

base of traditional banking oligopolies and to its benefits. Customers now demand a high level of comfort and flexibility, strong and easy-to-use financial management products and services that cannot be offered by traditional retail banking. Internet banking has enabled banks and financial institutions to provide this service by utilizing broad public network infrastructure [2]. Customers in the current information technology era are also quite concerned with the quality of electronic services provided by each bank. Banks must be able to maintain good performance and correct deficiencies in customer ratings that are expected to use their services in the future [3]. The bank can know the extent of the quality of services that have been provided to customers, so that it can identify factors that need to be maintained or improved in connection with bank services to customers in the future [4]. This condition is certainly a challenge for banking businesses to continue to improve the services and banking products themselves, how to always maintain the market share that has been obtained and try to better develop a wider customer network [5]. The key to the success of banks is to remain competitive and continue to improve service quality to better meet customer needs and provide superior service [6]. Banking has begun to minimize conventional transactions and maximize online transactions. With more and more banks offering online banking, it's guite difficult for customers to choose the most appropriate bank for online transactions because the needs of electronic customers are diverse. High levels of service quality have increasingly been recognized as one of the most important factors contributing to the success of any business based on e-transactions [7]. The concept of electronic services has been increasingly used by researchers and practitioners since the beginning of 2000. Electronic services have become a business model of service trends in the service sector in the current industrial era. Electronic services can be defined as providing electronic services to customers [8]. E-service is a web-based service that is delivered via the internet [9,10]. According to a study [11], e-service operations are operations where all or part of the interaction between service providers and customers is carried out via the internet. According to a study [12], the banking perspective "service quality is a form of assessment of the level of service provided by banks to customers to meet the needs and desires of customers as expected". Some definitions about service quality according to some experts above make the writer summarize that e-service quality in banking especially in branchless banking is "meeting the needs and desires of consumers to service electronically to customers via the internet in order to meet customer expectations and satisfaction". The contribution of this article relates to the fact that the proposed model is integrated holistically towards various relevant factors that influence the quality of electronic services into a single model. These factors are general characteristics for traditional services and electronic services, typical characteristics of electronic services, dimensions of relevant electronic service quality especially in branchless banking.

LITERATURE REVIEW Branchless Banking

As a banking innovation in reaching financial services to branchless banking customers operate without going through the bank's physical office but only utilizing the services of agents or information and communication technology so that banking financial services can be done anywhere and anytime. The most common examples of branchless banking services are mobile banking, internet banking, electronic money, mobile money, etc. [13]. Use of technological facilities and / or involve third party services, especially to serve people who have not been served by financial / unbanked services. The great potential is owned by branchless banking in expanding the distribution of financial services, especially to the poor who are not reached by traditional bank branch networks; can reduce shipping costs, for banks and customers, build and maintain shipping channels for customers to access services [14]. In addition to efficiency reasons, the use of branchless banking is intended to obtain convenience and speed of transactions without going through a bank teller [15]. The poor are referred to people who have low incomes, non-permanent income and cannot be

predicted. While on the other hand they also lack financial products and services that suit their needs. The poor who are not reached by banks or are called unbankable are ultimately marginalized, unable to carry out production activities optimally so that they do not contribute significantly to the economy. In the digital age many things can be facilitated, in the field of financial services, for example, what is called branchless banking or banks without busy offices is implemented. This is believed to help financial inclusion strategies in accelerating welfare even distribution [16].

E-Banking

Virtual banks or "branchless banks" are a relatively new concept used to define banks that do not have physical buildings such as branches, but offer services only through the internet and ATMs to deposit or withdraw funds [17]. Online banking is different in many ways from traditional banking. One of the most striking differences concerns the connection to the bank's information processing system. Customer behavior is also shifting to mobile and digital payments globally, and will totally use digital by 2030 [18]. In online banking, customers have direct access to bank information systems from home, office, school or other places where network connections are available. In this new situation, the customer is defined as the end user of the bank's data processing system. In end-user computing, the user's personal computer plays an important role [19]. An online banking user performs at least one of the following online transactions: a) Check account balances and transaction history, b) Pay bills, c) Transfer funds between accounts, d) Request a credit card down payment, e) Check checks, and f) Manage investing and trading in shares. An increase in the customer base will be achieved by using an internet system and is more efficient than using other distribution media from the perspective of the bank. People are becoming more comfortable with online banking and they believe that all banks need to offer online banking services. A study [20], notes that the benefits of e-banking include: 1) competitive advantage, 2) customer retention and attractiveness, 3) increased revenues, and 4) cost reduction.

E-Service Quality and Definitions

Based on the definition of traditional services [21,22], electronic services are defined as actions, efforts or performance which are mediated by information technology (such as the web, information kiosks and cellular devices). The electronic services include service elements from e-tailing, customer support and service, service delivery. According to a study [23], the quality of electronic services is the extent to which a website facilitates shopping, purchasing and shipping of products and services that are efficient and effective. This definition involves a complete service experience by the customer during all stages of the online shopping process and consists of aspects of pre-website, on-site and post-web site services. Another definition according to a study [24], is the overall assessment of consumers and evaluation of the superiority and quality of e-service offerings in virtual markets.

E-Service Quality in Banking

A review of the dimensions of internet banking electronic service quality used to measure the quality of electronic services at the country level shows that in addition to the dimensions used in E-SERVQUAL, some researchers find site aesthetics, guarantees and personalization of sites also important. The study [25], on the quality of internet banking electronic services in the US recommends three dimensions for the quality of electronic services namely Efficiency, Contact, Customization. Efficiency was also found as a major component of the quality of electronic internet banking services in Hong Kong [26], Sweden [27] and Taiwan [28]. The study also revealed that usability, ease of use, reliability, responsiveness, security, privacy emerged as dimensions of internet banking in Hong Kong. Study. For internet banking in Taiwan it shows that the dimensions that make up the quality

of electronic services are Efficiency, Fulfillment, System Availability, Privacy, Contacts, Compensation, Site Aesthetics, Customization.

E-Service Quality Dimensions and Measures

There are a number of methods that enable the measurement of a company's electronic service profile as perceived by its customers. The best-known method is WEBQUAL, developed by a study [29], E-SERVQUAL, developed by E-TailQ was developed by a study [30] and E-SERVQUAL developed by a study [31], as well as the number of clicks, or purchases generated are measured as measurement instruments using the commercial performance of the website [32]. In this paper the researchers only pay attention to the quality of electronic services, so the emphasis is only on the electronic service quality scale. E-SERVQUAL is a method for measuring the quality of electronic services on a website based on the same principles as the original SERVQUAL method and includes several dimensions that are similar to those of SERVQUAL. The quality of electronic services can be defined as an evaluation and overall customer assessment of the excellence and quality of electronic service delivery in virtual markets [33]. Next, the dimensions of electronic service quality identified in different studies are reviewed and discussed. The results of the literature analysis are summarized in Table 1.

Table 1. E-Service Quality Measures.

S.No	Author	Dimensions	Context
1	Dabholkar (1996)	Website design, Reliability, Delivery, Ease of use, Enjoyment and Control	E-service
2	Barnes & Vidgen (2002)	Usability Design Information Trust Empathy	E-service quality
3	Zeithaml (2002)	Security, Communication, Reliability, Responsiveness and Delivery.	E-service
4	Madu & Madu (2002)	Performance, Features, Structure, Aesthetics, Reliability, Serviceability, Security and System integrity, Trust, Responsiveness, Service differentiation and customization. Webstore police, Reputation,	E-quality

		Assurance and Empathy	
5	Zeithaml et al., (2002)	Web site's entire customer base: Efficiency Fulfillment System availability Privacy For customers with non routine encounters: Responsiveness Compensation Contact	E-service quality
6	Surjadjaja et al., (2003)	Security, Interaction, Responsiveness Information, Reliability, Deliveryand Customization	E-service
7	Santos (2003)	Ease of use, Appearance, Linkage, Structure, Content, Efficiency, Reliability, Communication, Security, Incentive and Customer support	E-service
8	Wolfinbarger & Gilly (2003)	Fulfillment /reliability Website design Customer service Security/privacy	E-service quality

9	Field, Heim, & Sinha, (2004)	Website design, Reliability, Security and Customer service	E-service
10	Yang & Fang, (2004)	Responsiveness, Reliability, Credibility, Competence, Access, Courtesy, Communication, Information, Responsiveness and Website design	E-service
11	Ribbink, van Riel, Liljander, & Streukens, (2004)	Ease ofuse E-scape (i.e. web sitedesign) Customization Responsiveness Assurance	E-service quality
12	Parasuraman et al., (2005)	Efficiency, Availability, Fulfillment, Privacy, Responsiveness, Compensation and Contact	E-service
13	Lee & Lin, (2005)	Website design Reliability Responsiveness Trust Personalization	E-service quality
14	Fassnacht & Koese, (2006)	Graphic quality, Layout, Attractiveness of selection, linformation, Ease of use, Technical quality, Reliability, Functional Benefit and Emotional benefit	E-service
15	Raman, Stephenaus, Alam, & Kuppusamy, (2008)	Ease ofuse Appearance Reliability Customization Communication Incentive	E-service quality

16	Swaid, Berkeley, & Wigand, (2009)	Website usability Information quality	Foorigo
		Reliability	E-service
		Responsiveness	quality
		Assurance	
		Personalization	

A Conceptual Model of E-Service Quality

The literature shows a lack of dimensions for measuring electronic service quality (e-SQ). Previous researchers used various dimensions for e-SQ based on their field of study. In addition, some researchers identify different dimensions for the same field and the general dimensions of action according can change to the researchers' study context. The results of the study indicate that the dimensions of E-SERVQUAL depend on different types of services in the same industry from various industries [34]. Based on the literature review and selected steps for electronic service quality (e-SQ) mentioned in Table 1, the conceptual model for measuring e-SQ in the banking industry was formulated after focus group discussions with bank managers, as shown in Figure 1. The dimensions of this model are those that have a high impact on measuring the quality of electronic services in the branchless banking industry in Indonesia. This study combines many common dimensions used by other researchers under the following dimensions which are then arranged in the following hypothesis:



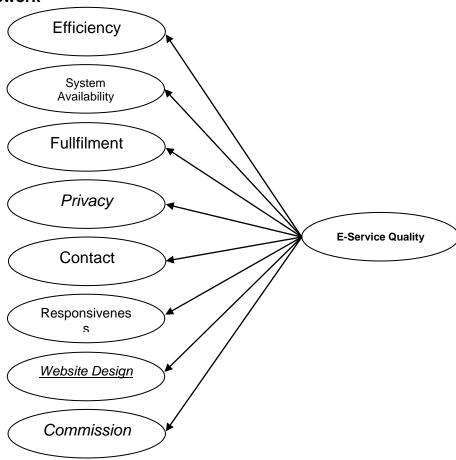


Figure 1. Proposed Framework for E-Service Quality Branchless Banking Context.

Efficiency

A website is easy to use, well structured and requires minimum information to be inputted by customers [35]. For this, the following hypothesis is proposed:

H₁. There is an effect of efficiency on the quality of electronic services.

System Availability

System availability refers to the correct site technical functions [36]. For this, the following hypothesis is proposed:

H₂. There is an effect of system availability on the quality of electronic services.

Fullfilment

This dimension refers to the extent to which the site promises about shipping orders and the availability of goods fulfilled. For this, the following hypothesis is proposed:

H₃. There is an effect of fullfilment on the quality of electronic services.

Privacy

Using security tools at banks will provide a safe environment for customers to use electronic services without fear and concern about the disclosure of customer's personal and financial information [37]. Some security features include:

- Do not reveal customer's personal and personal information
- Provides a safe environment without the risk of electronic piracy
- Use secure software to offer services to customers

H₄. There is an effect of privacy on the quality of electronic services.

Contact

Availability of assistance is by telephone or online representative. For this, the following hypothesis is proposed:

H₅. There is an effect of contact on the quality of electronic services.

Responsiveness

This relates to flexibility, fast delivery, consistency and accuracy of services delivered [38-45]. For this, the following hypothesis is proposed:

H₆. There is an effect of responsiveness on the quality of electronic services.

Website Design

In terms of human-computer interaction, the type of website design is very important and has an intensive impact on user performance [46]. Website design aims at an attractive and pleasing appearance [47]. Further research on the quality of internet services mainly focuses on website design and all authors agree that the website must be designed in such a way as to improve the conception of customers on the website and its services, H₇. There is an effect of website design on the quality of electronic services.

Commission

Providing qualitative banking services together with the right fees and commissions always leads to customer satisfaction and as a result they are considered the main concern of bank managers [27,48]. Meanwhile, taking a lower commission in the banking industry is considered a relative advantage. Various studies show that successful banks ask for lower commissions on their services and take high commissions often challenge their success [49,50]. The way to achieve this goal is that the internet banking reduces operational and official costs successfully and saves relevant costs helping banks reduce or even eliminate their commissions H₈. There is an effect of commission on the quality of electronic services.

PROPOSED FUTURE RESEARCH

To test the reliability and validity of the proposed conceptual model, data can be collected

from professionals, internet banking customers through interviews and structured questionnaires and statistical software that can be used are SPSS, PLS, AMOS, Lisrel, NVivo, etc. Analyzing the proposed structural model can test the hypothesis. This finding can help in determining the significance and influence of the dimensions of the quality of electronic services in banking, especially in branchless banking in Indonesia.

CONCLUSION

The proposed conceptual model aims to measure the quality of electronic services in the branchless banking sector focused on 8 (eight) dimensions, namely; efficiency, system availability, fullfilment, privacy, contact, responsiveness, website design and commission. The proposed model is based on relevant prior literature and research. The proposed dimension has an influence on the quality of electronic services. Signifying the dimensions of electronic service quality significantly can help branchless banking improve the quality of electronic services, especially the validation of these dimensions is considered from the viewpoint of users and employees. This finding will lead to building an appropriate scale to measure the quality of electronic services in the Indonesian branchless banking industry, which in turn will help improve the efficiency of electronic service quality to achieve customer satisfaction. Consequently, this will lead to the achievement of competitive advantage for branchless banking providers. The recommendation for further research is a model of electronic service quality. The proposed model can be tested with quantitative studies. Cross-cultural studies can be carried out to explore the role of different quality dimensions in models in different cultural environments. In addition, a comparative study on the quality of electronic services between businesses and consumers and also between business and business can be done using the proposed model as a theoretical framework.

REFERENCES

- 1. Alsajjan B. A., Dennis C (2006) The Impact of Trust on Acceptance of Online Banking. In European Association of Education and Research in Commercial Distribution 27-30 June 2006 Brunel University West London, United Kingdom 1-19.
- 2. Shing C, Grant K, Edgar D (2007) Factors affecting the adoption of Internet Banking in Hong Kong implications for the banking sector. International Journal of Information Management 27: 336-351.
- 3. Harahap DA, Amanah D (2019b) Studi Kepuasan Nasabah PT. Bank Negara Indonesia (Persero), Tbk Kantor Cabang Pembantu UPI Bandung. Jurnal Manajemen Dan Bisnis: Performa 16: 29-38.
- 4. Harahap DA, Hurriyati R., Gaffar V (2019) Service Quality Towards Bank Customer Loyalty (Empirical Study at BNI USU Medan). EJBMR, European Journal of Business and Management Research 4: 1-6.
- 5. Harahap DA, Amanah D, Yakob R (2019) Why relational marketing impacts on bank's customer satisfaction? BISMA (Bisnis Dan Manajemen) 12: 43-53.
- 6. Harahap DA, Hurriyati R, Disman D (2018) An Analysis of Service Quality using Importance Performance Analysis and Gap Analysis at a Commercial Bank in Indonesia. In Proceedings of the 4th Sriwijaya Economics, Accounting, and Business Conference 161-168.
- 7. Zeithaml, Valarie A, Malhotra A (2002) Service Quality Delivery Through Web Sites: A Critical Review of Extant Knowledge. Journal of the Academy of Marketing Science 30: 362-375.
- 8. Saanen YA, Verbraeck A, Sol HG (1999) Snapshot of e-commerce's opportunities and threats. Electronic Markets 9: 181-189.
- 9. Reynolds J (2000) The Complete E-commerce Book: Design, Build and Maintains Successful Web-based Business. New York: CMP-Books.
- 10. Sarah L (2000) The Electronic Commerce Market Impact. In: Keyes J (ed.) Internet

- Management. London: Auerbach
- 11. Surjadjaja H, Ghosh S, Antony J (2003) Determining and assessing the determinants of e-service operations. Managing Service Quality: An International Journal 13: 39-53.
- 12. Harahap DA, Amanah D (2019a) Kajian Kualitas Pelayanan dan Loyalitas Nasabah Perbankan di Indonesia. Jurnal Bisnis Dan Ekonomi 26: 30-43.
- 13. Rushandie R (2015) Branchless Banking Lebih dari Sekedar Jargon Marketing.
- 14. Ivatury G, Mas I (2008) The Early Experience with Branchless Banking. CGAP Focus Note 46: 1-16.
- 15. Moutinho L, Smith A (2000) Modelling bank customer satisfaction through mediation of attitudes towards human and automated banking. International Journal of Bank Marketing 18: 124-134.
- 16. Sarwono HA (2016) Branchless Banking Model Keuangan Inklusif.
- 17. Sayar C, Wolfe S (2007) Internet banking market performance: Turkey versus the UK. International Journal of Bank Marketing 25: 122-141.
- 18. King B (2020) Bank 4.0 : Perbankan di Mana Saja dan Kapan Saja, Tidak Perlu di Bank (I. Grantika, Ed.) (Cetakan I). Jakarta Selatan: Mahaka Publishing.
- 19. Pikkarainen K, Pikkarainen T, Pahnila S (2006) The measurement of end-user computing satisfaction of online banking services: empirical evidence from Finland. International Journal of Bank Marketing 24: 158-172.
- 20. Simpson J (2002) The impact of the Internet in banking: observations and evidence from developed and emerging markets. Telematics and Informatics 19: 315-330.
- 21. Dabholkar PA (1996) Marketing Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality. International Journal of Research in Marketing 13: 29-51.
- 22. Rowley J (2006) An analysis of the e-service literature: towards a research agenda. Internet Research 16: 339-359.
- 23. Zeithaml, Valarie A (2002) Guru 's view Service excellence in electronic channels. Managing Service Quality 12: 135-138.
- 24. Santos J (2003) E-service quality: a model of virtual service quality dimensions. Managing Service Quality 13: 233-246.
- 25. Zeithaml VA (2000) Service Quality, Profitability, and the Economic Worth of Customers: What We Know and What We Need to Learn. Journal of the Academy of Marketing Science 28: 67-85.
- 26. Siu NY, Mou JC, Siu NY (2005) Journal of International Measuring Service Quality in Internet Banking Measuring Service Quality in Internet Banking: The Case of Hong Kong. Journal of International Consumer Marketing 17: 99-116.
- 27. Jun M, Cai S (2001) The key determinants of Internet banking service quality: a content analysis. International Journal of Bank Marketing 19: 276-291.
- 28. Wu Y, Chang MCS, Chen Y (2008) The Use of E-SQ to Establish the Internet Bank Service Quality Table. In Proceedings of the 2008 IEEE IEEM 1446-1450.
- 29. Loiacono ET, Watson RT, Goodhue DL (2002) WebQual TM: A Measure of Web Site Quality. Marketing Theory and Applications 13: 432-438.
- 30. Wolfinbarger M, Gilly MC (2002) ComQ: Dimensionalizing, Measuring and Predicting Quality of the E-tail Experience. University of California, Irvine.
- 31. Parasuraman A, Zeithaml VA, Malhotra A (2005) E-S-Qual: A Multiple-Item Scale for Assessing Electronic Service Quality. Journal of Service Research 7: 1-21.
- 32. Cox J, Dale BG (2001) Research and concepts Service quality and e-commerce: an exploratory analysis. Managing Service Quality: An International Journal 11: 121-131.
- 33. Lee G, Lin H (2005) Customer perceptions of e-service quality in online shopping. International Journal of Retail & Distribution Management 33: 161-176.
- 34. Yang Z, Peterson RT, Cai S (2003) Services quality dimensions of Internet retailing: an exploratory analysis. Journal of Services Marketing 17: 685-700.
- 35. Herington C, Weaven S (2009) E-retailing by banks: e-service quality and its importance to customer satisfaction. European Journal of Marketing 43: 1220-1231.

- 36. Firdous S, Farooqi R (2017) Impact of Internet Banking Service Quality on Customer Satisfaction. Journal of Internet Banking and Commerce 22: 1-17.
- 37. Mohammadi A, Taleghani M (2015) The Evaluation of Electronic Service Quality'S Impact on Customer Satisfaction. Indian Journal of Fundamental and Applied Life Sciences 5: 42-48.
- 38. Madu CN, Madu AA (2002). Dimensions of e-quality. International Journal of Quality & Reliability Management 19(3): 246-258.
- 39. Loonam M, O'Loughlin D (2008) Exploring e-service quality: a study of Irish online banking. Marketing Intelligence & Planning 26: 759-780.
- 40. Parasuraman A, Zeithaml VA, Berry LL (1988) SERQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. Journal of Retailing 64: 12-40.
- 41. Swaid S, Berkeley L, Wigand RT (2009) Measuring the quality of E-service: Scale development and initial validation. Journal of Electronic Commerce Research 10: 13-28.
- 42. Tan KC, Xie M, Li YN (2003) A service quality framework for Web-based information systems. The TQM Magazine 15: 164-172.
- 43. Wolfinbarger M, Gilly MC (2003) eTailQ: Dimensionalizing, measuring and predicting etail quality. Journal of Retailing 79: 183-198.
- 44. Yang CC (2003) Establishment and applications of the integrated model of service quality measurement. Managing Service Quality 13: 310-324.
- 45. Yoo B, Donthu N (2001) Developing a scale to measure the perceived quality of an internet shopping site (sitegual). Quarterly Journal of Electronic Commerce 2: 31-45.
- 46. Palmer JW (2002) Web site usability, design, and performance metrics. Information Systems Research 13: 151-167.
- 47. Khalaf Ahmad AM, Ali Al-Zu'bi H (2011) E-banking Functionality and Outcomes of Customer Satisfaction: An Empirical Investigation. International Journal of Marketing Studies 3: 50-65.
- 48. Gerlach D (2000) Put your money where your mouse is PC World.
- 49. Devlin JF (1995) Technology and innovation in retail banking distribution. International Journal of Bank Marketing 13: 19-25.
- 50. Rotchanakitumnuai S, Speece M (2003) Barriers to Internet banking adoption: a qualitative study among corporate customers in Thailand. International Journal of Bank Marketing 21: 312-323.