

## Conference Paper

# The Effect of Service Quality to Customer of Loyalty Using Self-Service Technology: Internet Banking

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### Abstract

In the 21st century the use of internet banking is no longer an option, but is a customer need. Internet banking research has been carried out in developed countries. This research was conducted in developing countries, Indonesia. This research aims to test the impact of service quality on internet banking towards customer satisfaction and customer loyalty. There are six independent variables studied, namely ease of use, fulfillment, security and privacy, responsiveness, reliability and convenience. This research use quantitative approach with Structural Equation Model (SEM) method. This research use 162 samples who use internet banking for Indonesia banks. The result show that among the 6 dimension of internet banking quality 3 dimension have positive significant impact. They are ease of use, fulfillment, and security and privacy. In other side 3 other dimensions are responsiveness, reliability, and convenience have found to be not significant affect the customer satisfaction. In addition customer satisfaction has positive significant toward customer loyalty.

**Keywords:** service quality, customer loyalty, customer satisfaction, internet banking

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## 1. Introduction

Today, traditional transaction changes to technology-based by using Self-Service Technology (SSTs). The contribution of SSTs has been applied in the service industry. Banking industry in Indonesia uses SSTs since 2012 and increase to 270% [1]. Using the technology in the bank makes customers more efficient in making transactions. The quality dimension emerges as a strategy issue that determines the long-term success of internet banking services [2]. Customer satisfaction is the core determinant of the successful electronic path of a service [2], [3]. Quality of service automated into Self-Service Technology (SSTs) has an important role in determining customer satisfaction.

A study conducted by [2] on the quality dimensions of ATMs (Automated Teller Machines) found that responsiveness, ease of use, reliability, convenience, fulfillment affect customer satisfaction. The dimensions of security and privacy have no effect

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on customer satisfaction. ATMs is one form of SSTs that have long been used by the community. This 20th century, the use of other forms of SSTs is also increasingly widespread. This research is trying to replicate research [2] by using SSTs in the form of internet banking. This study aims to analyze the effect of service quality dimensions on internet banking to customer satisfaction and customer loyalty.

Self-Service Technologies first discovered by [20] in [2]. This variable define as technological interfaces that facilitate the production of services by customer independent of direct service employee involvement. In the banking business, SSTs is defined as an online banking service or referred to as e-banking [4]. The quality service in this study is measured through responsiveness, ease of use, reliability, convenience, fulfillment and security & privacy. In general customer satisfaction is defined as a measurement of how well a product or service supplied by a firm to meets customer expectation [2].

Responsiveness shows the ability of banks to handle customer complaints related to problems experienced by customers. A good and effective bank response will please the customer. [5] predicts the influence of responsiveness on customer satisfaction in using ATMs in Pakistan. H1: Responsiveness of internet banking has a significant positive effect on customer satisfaction

Ease of use describes the conditions in which customers feel using a technology to meet their needs. [6] say that ease of use is the main factor in the determination of using information technology such as online banking. In addition [2], [7], [8] and [5] found that ease of use factors determine customer satisfaction in the use of electronic banking. H2: Ease of use of internet banking has a significant positive effect on customer satisfaction.

In terms of internet banking, reliability is defined as the ability of the banking Internet system to function all the time without interruption and provide consistent service. [9] say that reliability is a major basic determine the quality of services electronically. [2] found that reliability is the essence of electronic banking quality that can affect customer satisfaction.

H3: Reliability of internet banking has a significant positive effect on customer satisfaction

Convenience refers to the location where internet banking can be accessed. [2] convenience in addition to location-related also related to its availability in 24 full hours for 7 days to serve customers. Convenience in the use of electronic banking affects customer satisfaction [10], [8], [5]. H4: Convenience of internet banking has a significant positive effect on customer satisfaction.

[2] says that the fulfillment of websites has a significant effect on customer satisfaction and loyalty. [2] states the ability of ATM services to meet customer expectations. H5: Fulfillment of internet banking has a significant positive effect on customer satisfaction

Security and privacy [11] refers to a set of legal requirements and good practices with regard to the handling of personal data whereas security references to the technical guarantees will be met effectively. [12] argued that security and privacy are important factors in the adoption of internet banking in Vietnam. If the security and privacy of internet banking is able to fulfill this then the customer is satisfied. H6: Security and privacy have a significant positive effect on customer satisfaction.

In the internet banking industry, customer loyalty means the tendency of customers to continue using specific websites, frequently visit it, and show high site adhesion with high detention time [13]. [14] has proven that customer satisfaction positively affects the intention to repurchase and also customer loyalty. H7: Customer satisfaction has a significant positive effect on customer loyalty.

## 2. Methods

The sampling technique used purposive sampling with the number of 162 respondents. This study use Likert scale with 1 to 5. The mean value of all items measurement majority 4 with standard deviation less than 1. Sample criteria used are people who actively use internet banking for at least the last 12 months (majority of women 67%) and minimum education of SMA / equal (68%). Respondents aged between 21-30 years (67%). All the measurement show at Table 1.

## 3. Results

Data processing in this study uses AMOS (SEM). Based on the results of the data that refers to [19]. Validity and reliability of all variables calculation using standardized loading values to obtain the value of AVE and CR and declared valid and reliable. Based on the results of fit model structural test obtained CMIN/DF = 1,460; GFI = 0,836; TLI = 0,934; CFI = 0,943 and RMSEA = 0,053.

The result showed that there were 4 hypotheses supported (H2, H5, H6, H7). [12], [7], [2] and [14] supported these hypotheses as has been expressed. In this study, responsiveness has no effect on satisfaction. Most respondents often do not experience problems when using internet banking, so as not to impact on satisfaction. The results of this test support by [18] also found that responsiveness in internet banking has

TABLE 1: Item Measurement.

Variable	Item
Responsiveness [15], [2]	When my transaction fails, internet banking tells me. Quick response problem. Customer service can be contacted internet banking. Quickly fix the damaged (error).
Ease of Use [2]	Provide usage guidelines easily. Easy to operate Understand information easily Overall using is easy for me.
Reliability [2]	Available for 24 hours Provide consistent service Provide accurate information
Convenience [15]	Various services are available Can be accessed anywhere Waiting time still be tolerated
Fullfillment [15], [4], [2]	Provides report after transaction Provides feature promises. Presents the right service according to what I ask for.
Security & Privacy [2]	Sure with the security Transaction is safe when using internet Personal data will not be spread to other..
Customer Satisfaction [5], [16]	Happy with services Feel very satisfied with services Overall satisfied with the service.
Customer Loyalty [14]	Recommend to others Preference using to others Share to others Desire to continue.

TABLE 2: Hypothesis Testing.

Hypothesis	Est.	CR	P-Value	Result
R → SAT	0.054	0.144	0.886	NS
EoU→SAT	0.392	1.985	0.047	S
RL→SAT	0.004	0.027	0.978	NS
CO→SAT	0.117	0.333	0.739	NS
F→SAT	0.267	2.112	0.035	S
SP→SAT	0.165	2.471	0.013	S
SAT→LO	0.765	10.068	***	S

no significant effect on customer satisfaction. The reliability dimension has no effect on customer satisfaction in this study supporting [17]. Respondents feel that internet banking is a system should always consistently provide services so that it does not have an impact to improve customer satisfaction. The convenience dimension has no effect on customer satisfaction does not support [2]. This happens because the majority of respondents only use certain features provided in internet banking and have felt enough

## 4. Conclusion

The result of 6 dimension of internet banking quality to customer satisfaction found there are 3 hypotheses supported. The dimensions of internet banking quality that affect the satisfaction are ease of use, fulfillment and security and privacy. Dimensions responsiveness, reliability and convenience have no effect on customer satisfaction. This study also found that customer satisfaction affects customer loyalty in internet banking.

Further research may complement the measurement of responsiveness, reliability and convenience dimensions or select respondents with more diverse demographics. This research will be interesting if done in a country that has a more advanced technological civilization in the appeal of Indonesia. It is expected to conduct a comparison of research for developed and developing countries.

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