

# Impact of Service Quality of Internet Banking on Customer Satisfaction in Kegalle District

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## Abstract

Internet banking still remains as the coherent and most cost-effective channel for the banks as well as for customers. A significant feature of online Banking or internet banking is the permits customers to access their bank accounts 24/7, which is a new experience. Service Quality is the main factor that determines the success or failure of internet banking. Inability to measure the service quality is detrimental to the growth of the internet banking. Customers tend to demand equal or higher levels of service quality based on-line than the traditional services. In this context, the research was carried out to identify the Impact of service quality of Internet banking on customers' satisfaction in Kegalle district. The study was carried out with three dimensions as reliability, efficiency, and responsiveness to measure the service quality of internet banking and two dimensions to measure the customer satisfaction as customer loyalty and customer attitude. Data were collected using questionnaire within the 200 sample. Based on the findings of the study, it concluded that service quality of internet banking is a good predictor of the customer satisfaction and there is a positive relationship between the service quality of internet banking and customer satisfaction. As well as all the dimensions of the service quality of internet banking are significant predictors of the customer satisfaction. There are no significant differences in level of perceptions regarding the service quality of internet banking by demographic factors.

**Key Words:** Internet Banking, Service Quality, Customer Satisfaction

## Introduction

One of the most recent channels of distribution to be used in the financial services organizations is internet banking. Internet banking means any user with a personal computer and a browser can get connected to his bank's website to perform any of the virtual banking functions. Or, Internet banking is a term used to describe the process whereby a client executes banking transactions via electronic means. This kind of banking eradicates the necessity of physical movement to financial positions.

Both service quality and customers' satisfaction play important role in business. Understanding of the relationship between service quality and customers' satisfaction can help marketers create appropriate business strategies and target customers (Zeithaml, 2002). In this research, the researcher focused on analysis the relationship between service quality of internet banking and customers' satisfaction in banking industry in Kegalle District, Sri Lanka. Because internet banking as a high technique business, it requires high quality of service to attract the customers, and customers' satisfaction as a key factors affects customers' purchase decision making.

Sri Lankan context, Internet Banking was first introduced to the country in late 1998. Growth of Electronic banking in a country depends on many factors, such as success of internet access, new online banking features, household growth of internet usage, dependable services to the

customers for which they may be relatively satisfied than of manual system of banking. E-Service quality evaluation results can be used as a basis for e-service quality improvement as well as the improvement of enterprises' efficiency, competitiveness and attractiveness in the virtual market. The traditional service quality dimensions cannot directly apply to internet banking, because it represents a different and unique service delivery process. E-banking has become important phenomenon in the banking industry and it will continue as more progress and innovations are made in information technology. Numerous studies have identified important dimensions of service quality in the conventional banking, but gap remains in relatively little investigated literature on service quality attributes in the internet banking industry and its impact on customer satisfaction. Therefore, further study is desired in order to understand the dimensions of e-service quality and fewer studies are available examining the same in Sri Lankan Banking environment.

Service Quality is the main factor that determines the success or failure of internet banking, (Santos 2003). Inability to measure the service quality is detrimental to the growth of the internet banking. Customers tend to demand equal or higher levels of service quality based on-line than the traditional services. In this context, the research problem for this study is identified as "What is the level of impact of service quality of Internet Banking on customers' satisfaction in Kegalle district?"

Based on the research problem identified above and literature review the following research objectives are raised for the study.

- i. To find out the level of service quality of Internet Banking in Kegalle District.
- ii. To ascertain the impact of each dimensions of Internet banking service quality, on customer satisfaction.
- iii. To ascertain the impact of overall internet banking service quality on customer satisfaction.
- iv. To investigate how the service quality of Internet Banking varies with demography of the customers in Kegalle District.

Therefore, this study sought to provide a better empirical understanding of the impact of service quality of Internet banking on customer satisfaction in Kegalle district.

## **Literature Review**

SERVQUAL model is one of the most representative examples developed by Parasuraman et al. (1985) to measure the service quality. SERVQUAL model, which is an instrument for measuring the perceived service quality by comparing the services what consumers feel firms should offer and the delivered services what they experience, has developed and purified from 10 dimensions to five (tangibles, responsiveness, reliability, assurance, and empathy). In a more easily understandable way, this service quality measurement that can be called disconfirmation method has been developed according to the gap or difference between the expectation and perception from consumers' perspective. SERVQUAL model is most widely used and popular for traditional service quality measurement, but there have been some different ideas of evaluating perceived service quality in recent years.

Although a lot of researches have been done for service quality measurement, there is still a need for further study relating more to e-service quality because of its specific characteristics that traditional service models do not pay attention to.

Wolfenbarger & Gilly (2003) developed eTailQ, a scale including 14 items which are divided into four factors: web site design (including items related to website design e.g. color, front, and attributes associate with product selection and customization as well), reliability/fulfillment (involving on-time delivery as well as accurate representation of the products and accurate orders), privacy/security(confidence in using this website), and customer service (interest and willingness for personnel to provide help and deal with problems as well as quick response to inquiries). As can be seen from this model, the whole transaction process is involved into the assessment of perceived e-service quality, especially including fulfillment and customer service.

Madu and Madu (2002) presented a scale consisting of 15 dimensions based on SERVQUAL: performance, features, structure, aesthetics, reliability, storage capacity, serviceability, security and system integrity, trust, responsiveness, product/service differentiation and customization, web store policies, reputation, assurance and empathy.

Besides, Zeithaml et al. (2000) made the research of e-service quality measurement, a scale for rating online shopping experience on 11 dimensions: **reliability**, **responsiveness**, access, and flexibility, ease of navigation, **efficiency**, assurance/trust, security/privacy, price knowledge, site aesthetics and customization/personalization. Zeithaml et al. revised this scale based on combination of different kinds of concepts of online service quality. The new revised scale E-S-QUAL/ERecS-QUAL including E-S-QUAL and E-RecS-QUAL was lowered the dimension to seven: efficiency, fulfillment, system availability, privacy, responsiveness, compensation and contact (Parasuraman et al., 2005).

## The Conceptual Framework

The presented model in this study is derived from the models proposed by Zeithaml et al (2000, 2002) and Parasuraman et al (1985, 1988, and 2005) as a combination of those models.

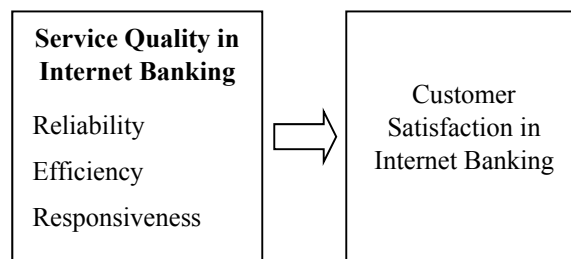


Fig. 1: The Conceptual Framework for the study

*Reliability:* The firm performs the services right the first time and the firm honours its promises. It involves in accuracy in billing, keeping records correctly, performing the service at the designated time.

*Efficiency:* Ability of the customers to enjoy a service or product to find their desire information and transaction with minimal errors and fast.

*Responsiveness:* Ability to solve customer's problems during service process. It includes the employees' skills and companies operation/ willingness to help customers and provide prompt service

## Methodology

### Data collection tools and methods

Data were collected based on primary and secondary sources. The sample was the two hundred Internet banking users in Kegalle district using convenient sampling technique in a convenient way without any further filtering. The unit of analysis was at individual level (Internet banking users). Total numbers of 200 respondents were selected in order to collect the data required for the study from the five commercial banks (Hatton National Bank, Commercial Bank, Sampath Bank, People's Bank, and Bank of Ceylon) in town area of Kegalle district.

The data related to the selected sample was collected using the questionnaire method. These questionnaires consisted of 21 research questions in part 2. The part 1 consist 06 questions which were designed with Nominal Scale to measure personnel information. The second part 21 questions were designed with seven point Likert Scales to measure the various variables and dimensions in the research model. The questionnaires were administrated through internal contacts of the researcher with the Internet banking users and later returned to the researcher. 190 questionnaires sent were returned after completion of answering yielding a response rate of 95%. Questionnaires used in this research were originally developed by the researcher. As the data for this study was collected at a single point of time, the study was cross – sectional in time horizon.

Literature surveys based on various published and unpublished research, journals, books, and newspaper articles.

### Method of data analysis

The Univariate Analysis, Bivariate Analysis and multivariate analysis were applied as the techniques to analyze and evaluate the data collected using the software SPSS version 19.0. The Cronbach's Alpha Test was done to ensure the reliability of the instrument. As the univariate analysis, the frequency distribution analysis, analysing the mean and standard deviation were made for every variable in the research model. The bivariate analysis, simple regression analysis was made to find out the impact of each independent variable on the dependent variable and multiple regression analysis was made to find out the overall impact of the service quality of internet banking on the customer satisfaction. Kruskal-Wallis H Test and Mann-Whitney U test were done to investigate how the service quality of Internet banking varies with demography of the customers in Kegalle District.

## Analysis and Findings

The inter item consistency reliability was examined with Cronbach's Alpha test. The results of Cronbach's alpha test suggest that the internal reliability of each instrument is satisfactory.

Table I: Cronbach's Alpha Coefficients

Instruments	Cronbach's Alpha
Reliability	0.792
Efficiency	0.831
Responsiveness	0.853

Customer Loyalty	0.710
Customer Attitude	0.746

Demographic profiles of respondents represent as follows: majority of the sample are represent by the age level between 18-27 years and it is 51% of the sample. Lower representation is in the age level of above 47 years as 4.7%. According to the gender distribution of the sample, males are representing higher proportion of the sample (63.7%) and females are only representing 36.3%. Highest number of respondents is having GCE A/L qualification (91) and 43 customers having GCE O/L. 42 customers have any other degree/ diploma and only 14 customers are in below GCE O/L. Sample represents highest number of customers is in the income level between Rs 31000-Rs 45000 and it is a 40.5% of the sample. Customers are in the income levels of Rs 15000- Rs 30000; more than Rs 45000 are 29.5% and 18.4% respectively. Lowest representation is in the level of less than Rs 15000. Most of respondents are using Internet banking for their banking activities since more than one year (34.2%) and only 13.2% are using internet banking since less than 3 months. Respondents who are using Internet banking since 3-6 months and 7-12 months are 23.2% and 29.5% respectively. Most of respondents in the sample are using Internet banking facility in Commercial bank (66 respondents) and lower representation in Sampath bank (27 respondents). People bank, HNB and BOC customers are 32, 37 and 28 respondents respectively.

Table II: Descriptive statistics of main variables

Variable/ Dimensions	Mean	Standard Deviation
Reliability	5.8667	.75031
Efficiency	6.1600	.41872
Responsiveness	5.8667	.93580
<b>Service Quality</b>	<b>5.9644</b>	<b>.33231</b>
Customer Loyalty	5.8333	.45458
Customer Attitude	6.0143	.43657
<b>Customer Satisfaction</b>	<b>5.9238</b>	<b>.40043</b>

Researcher analyzed the average service Quality by using descriptive statistics of mean and standard deviation of Service Quality of Internet Banking in order to achieve first research objective using the evaluation criteria in table III.

Table III: Data evaluation criteria for mean value

Range	$1 < X \leq 3$	$3 < X \leq 5$	$5 < X \leq 7$
Decision attributes	Low level	Moderate level	High level

Based on the data from Table II, can be seen that the average of all the variables reliability, efficiency, responsiveness, and overall service quality, are equivalent to 5.8667, 6.1600, 5.8667, 5.9644 are in high level. Dependent variable customer satisfaction in internet banking also in high level due to is 5.9238 mean values.

Simple regression analysis used to determine impact of each independent variable on dependent variable. This analysis is related to the second research objective. The results of simple regression between Service Quality of Internet Banking and Customer Satisfaction are shown in table IV.

Table IV: Results of the simple regression Analysis

	Reliability	Efficiency	Responsiveness
R	0.608	0.647	0.790
R Square	0.369	0.419	0.625
a- Constant	7.826	2.112	3.940
b- value	0.324	0.619	0.338
Sig t	.000	.000	.000

The r value (coefficient of correlation) of all the variables are greater than 0.5 and it indicates a significant strong positive relationship between all the dimensions of the service quality and customer satisfaction. And R square values denote that above all the dimensions of the service quality are significant/ good predictors of the customer satisfaction since p values are 0.000.

Multiple regression analysis used to determine impact of overall service quality of the internet banking on customer satisfaction. This analysis is related to the third research objective. The results of multiple regression analysis are shown in table V and VI.

Table V: Results of the multiple regressions Analysis

R	R Square	Adjusted R Square	Sig
.885	.783	.779	0.000

Table VI: Results of the multiple regression analysis for each variable

	B	Sig	Tolerance	VIF
Reliability	.104	.000	.697	1.435
Efficiency	.316	.000	.740	1.351
Responsiveness	.244	.000	.749	1.335

The results of the multiple regression analysis show that there is a strong positive relationship between service quality of internet banking and customer satisfaction while, there is a significant impact of service quality of internet banking on customer satisfaction and 77.9% of variation of customer satisfaction is explained by the service quality of Internet Banking. That is service quality of Internet banking is a good/ significant predictor of the customer satisfaction. And all the dimensions used in this model are significant predictors of the customer satisfaction since all the sig values are 0.000.

Table VII: Results of the normality test Tests of Normality

	Kolmogorov- Smirnova	Shapiro- Wilk	Statistic	df	Sig.	Statistic	df	Sig.
Reliability		.233	190	.000	.887	190	.000	
Efficiency		.153	190	.000	.851	190	.000	
Responsiveness		.204	190	.000	.867	190	.000	

Table VII shows the results of the normality test and sig values of the Shapiro-Wilk test indicate that all the independents variables are not normally distributed. Based on that, Kruskal-Wallis H Test and Mann-Whitney U test is used to investigate how the service quality

of Internet Banking varies with demography of the customers in Kegalle District. This analysis is related to the fourth research objective.

Based on the results of Kruskal-Wallis H Test and Mann-Whitney U test, (Table VIII) the extent of the customer perceptions regarding the reliability, efficiency, responsiveness, and overall service quality of Internet Banking are not vary by any demographic factor since p values are greater than 0.05. Similarly, level of customer satisfaction also not varies by any of personal factor.

Table VIII: Results of Kruskal-Wallis H Test and t test for demography factors of respondents

Demography Factors Variable	Age Level	Educational Level	Income Level	Time period of using Internet Banking	Bank	Gender
<b>P values (Asymp.sig.)</b>						
Reliability	0.212	0.975	0.182	0.671	0.258	0.978
Efficiency	0.242	0.858	0.409	0.535	0.445	0.408
Responsiveness	0.862	0.179	0.310	0.488	0.848	0.253
<b>Overall Service Quality</b>	<b>0.764</b>	<b>0.472</b>	<b>0.345</b>	<b>0.677</b>	<b>0.662</b>	<b>0.233</b>
Customer Loyalty	0.707	0.854	0.731	0.897	0.802	0.655
Customer Attitude	0.553	0.825	0.848	0.784	0.855	0.493
<b>Overall Customer Satisfaction</b>	<b>0.598</b>	<b>0.953</b>	<b>0.829</b>	<b>0.791</b>	<b>0.723</b>	<b>0.448</b>

## Conclusions and Recommendations

The results of the study showed that level of service quality of internet banking is in high level and level of customer satisfaction also in high level. 77.9% variation in customer satisfaction is explained by the service quality of internet banking and that is significant to conclude that the service quality of internet banking is a good predictor of the customer satisfaction and there is a positive relationship between the service quality of internet banking and customer satisfaction. As well as all the dimensions of the service quality of internet banking are significant predictors of the customer satisfaction. There are no significant differences in level of perceptions regarding the service quality of internet banking by demographic factors.

Based on these research findings, conclusions and researcher's experience throughout this research to improve the service quality of internet banking in Kegalle district, the following

suggestions are made for proper dealing with customer wishes and expectations in regard to internet banking services.

Because responsiveness has higher impact on customer satisfaction, it should improve the proficiency of the bank and its employees in quick reaction to customer requests through investment on the process of service provision and on training of the involved employees, the process reengineering will promote organizational ability in responding to customer needs and requests, And by outfitting the website with automatic response mechanisms, the customer are given assurance about good functioning of the system which will have positive working on their satisfaction with overall online banking services.

## References

- Bahia, K., & Nantel, J. (2000). A reliable and valid measurement scale for the perceived service quality of banks. *International Journal of Bank Marketing*, 18(2), 84–91.
- Brady, M. K., & Cronin, J. J. (2001). Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. *Journal of Marketing*, 65(3), 34–49.
- Broderick, A. J., & Vachirapornpuk, S. (2002). Service quality in Internet banking: The importance of customer role. *Marketing Intelligence & Planning*, 20(6), 327–335.
- Cronin, J. J., & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, 56(3), 55.
- Cronin, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *Journal of Marketing*, 58(1), 125.
- Daniel, E. (1999). Provision of electronic banking in the UK and the Republic of Ireland. *International Journal of Bank Marketing*, 17(2), 72–83.
- Daniel, E. (1999). Provision of electronic banking in the UK and the Republic of Ireland. *International Journal of Bank Marketing*, 17(2), 72–83.
- Ennew, C. T., Reed, G. V., & Binks, M. R. (1993). Importance-Performance analysis and the measurement of service quality. *European Journal of Marketing*, 27(2), 59–70.
- George, A., & Kumar, G. S. G. (2014). Impact of service quality dimensions in internet banking on customer satisfaction. *Decision*, 41(1), 73–85.
- Ghosh, S., Surjadaja, H., & Antony, J. (2004). Optimisation of the determinants of e-service operations. *Business Process Management Journal*, 10(6), 616–635.
- Jayawardhena, C. (2004). Measurement of service quality in Internet banking: The development of an instrument. *Journal of Marketing Management*, 20(1-2), 185–207.
- Jayawardhena, C., & Foley, P. (2000). Changes in the banking sector – the case of Internet banking in the UK. *Internet Research*, 10(1), 19–31.
- Jun, M., & Cai, S. (2001). The key determinants of Internet banking service quality: A content analysis. *International Journal of Bank Marketing*, 19(7), 276–291.
- Jun, M., & Cai, S. (2001). The key determinants of Internet banking service quality: A content analysis. *International Journal of Bank Marketing*, 19(7), 276–291.
- Madu, C. N., & Madu, A. A. (2002). Dimensions of e-quality. *International Journal of Quality & Reliability Management*, 19(3), 246–258.
- Mols, N. P. (1999). The Internet and the banks' strategic distribution channel decisions. *International Journal of Bank Marketing*, 17(6), 295–300.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460.



- Parasuraman, A., & Grewal, D. (2000). The impact of technology on the quality-value-loyalty chain: A research agenda. *Journal of the Academy of Marketing Science*, 28(1), 168–174.
- Santos, J. (2003). E-service quality: A model of virtual service quality dimensions. *Managing Service Quality: An International Journal*, 13(3), 233–246.
- Santos, J. (2003). E-service quality: A model of virtual service quality dimensions. *Managing Service Quality: An International Journal*, 13(3), 233–246.
- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1), 1–14.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–375.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–375.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–375.