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# A Quality Evaluation of Internet Banking in Thailand

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**Abstract:** The sampling groups in this research are customer who use the banking service via Internet system and the customer of D-Computer Co., Ltd. who usually use Internet Banking services such as inquiry about outstanding balance, fund transfer between accounts, and transfer payment for public utility. The sampling group specification of this research are must use Internet Banking services at least once a month. The research tools are questionnaires in the Web page form. Questionnaires are adapted from the tools that are used to evaluate the service quality called "The dimension of quality by David A. Garvin" by evaluating the quality of eight dimensional services: Performance, Features, Reliability, Conformance, Durability, Aesthetics, Serviceability and Perceived quality. During the sampling survey, we received 300 questionnaires that being answered completely. For information analysis, we use the fundamental statistics to analyze the characteristics of sampling group and test the relative variable factor by means of Chi-square and obtain the result to build a variance factor linear prototype.

The results were as follows:

1. The quality level of internet banking service of commercial banks in Thailand in the perspective of performance was different in each bank.
2. By weighting the important of criteria that used to evaluate the Internet Banking service quality in Thailand, the most important was the dimension of reliability, serviceability and durability. The less important was in dimension of perceived quality.

**Keywords:** Internet banking, e-Banking, service quality, dimension of quality.

## I. Introduction

In the present days, internet consistently increases its importance as an effective communication channel providing unlimited, speedy and effective facilitation because of

its geographic advantage and low cost. Internet becomes well known and used in household, business, bank and government sectors. Leading commercial banks in our nation have developed their working system by introducing computer system into their operation for speedy operation, and elimination of documentation and document expenses.

In the early period, banks used computer to keep and gather the information on credit, savings and other office works. Later, Thai commercial banks have developed computer system to be modern and correspond to the changing circumstances. In the age of communication and information development, the speed of data access and more effective advantages enhance the step to e-banking.

From 12 commercial banks in Thailand now [1], only eight banks, namely, 1. Bangkok Bank Public Company Limited, 2. Krung Thai Bank Public Company Limited, 3. Bank of Ayudhya Public Company Limited, 4. Kasikorn Bank Public Company Limited, 5. TMB Bank Public Company Limited, 6. Bank Thai Public Company Limited, 7. The Siam Commercial Bank Public Company Limited and 8. Bank of Asia Public Company Limited, provide alike internet banking services. In fact, the internet banking system has been available for not less than 4 years by Bank of Asia Public Company Limited and The Siam Commercial Bank Public Company Limited as the pioneers [2].

Internet banking service is available 24 hours. Customers do not have to pay traveling charge to do any transaction because it is accessible via internet system from the user's house or office. However, internet banking service is less popular than counter service or call-center service but it shows the sign of continuous progress.

From the study conducted by Winnie Chung and John Paynter [3], the following 3 points of internet banking service should be considered as important, namely, security system, data update and responding period. What is found not important for the service is the animation. Worasri Tantichattanon [4] said that the main issues of the unpopularity of internet banking were the security system, unreliability and insecurity of the service whereas the factors creating the confidence of the users of internet banking service were the accurate data and good security system.

## II. Conceptual Framework

The conceptual framework in this research is the study on the satisfaction of the customer of internet banking service. The quality of service is measured by the use The Eight Dimension of Quality by Garvin [5], namely, performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality. These perspectives were transformed to be a questionnaire on a web page to measure the quality of service of internet banking in Thailand.

## III. Research Methodology

The first part of the research is to evaluate eight Thailand banks regarding their Internet Banking services quality. This is an objective evaluation that aims to examine whether there is any difference among the eight Thailand banks. The Eight Dimension Quality was used as a basis for the evaluation in this part of the study.

Components that appear in the Eight Dimension Quality are performance, features, reliability, conformance, urability, serviceability, aesthetics and perceived quality. These components are the starting criteria that were used to evaluate the eight Thailand banks.

This dimension quality model (Table 1) was used to measure the services quality of each bank by presence of each element.

**Table 1:** The Eight Dimension Quality Model

Components	Elements
Performance	Up to date Information Response time Download time Complete Product Information Tutorial / Demonstration Help Function
Features	Online Registration Transfer funds between bank Other Language in addition to English Keep data safe Require encryption (SSL) 24 hours – 7 days Innovation features Ease of use
Reliability	Require Authentication Limit to change data Complete data Correct Link Manage font display

	Clear Instructions
Conformance	Product Information Locating Information How Informative Explains Symbol Internal Connection System Responsiveness
Durability	Announce change something Complete Display System Performance Continue to Use Connection failed Able to fix problem
Serviceability	Search Function Navigation menu / buttons Online Help Communication with Security Rapidly Services
Components	Elements
Aesthetics	Font Format Display Color Font Picture/Graphic/Animation Picture Size Layouts Color Theme
Perceived Quality	Company Information Competitions or rewards Development Basis of Honest Basis of Reliability Basis of acceptably

The second part of the research is a survey that aims to compare the overall services quality of Internet Banking and factor of Internet Banking service between each bank in Thailand and each dimension of quality by David A. Garvin.

The data in this research was gathered from the samplings of customers of internet banking of the eight banks of which the 2 main groups were users from D Computer Co., Ltd and general users of internet banking service in Thailand. In order to obtain comprehensive data as to the research objectives and the data accuracy, reliability, the qualifications of the samplings were set at the use regularity - or at least once a month.

During the sampling survey, we received 300 questionnaires that being answered completely. Quota sampling was used to select the samplings. Chi-square test and coefficient of correlation test were used to analyze the data. The result was brought to create Multiple Regression model to test the hypothesis.

#### IV. Preliminary Results

##### 1. General information of samplings

Most of the samplings who were the users of internet banking service of the eight banks were female with the educational level of bachelor degree. The frequency of service use was 2-3 times a month. The ages of the samplings were between 21-30 years and their salary was less than 15,000 Baht a month.

##### 2. Research hypothesis

2.1 The quality level of internet banking service of commercial banks in Thailand in the perspective of performance was different at the statistical significance of 0.5. For other perspectives, the quality level of each bank was not different at the statistical significance of 0.5.

2.2 The users of internet banking service gave importance to the eight perspectives of quality. The most importance one was the reliability, serviceability and durability respectively.

The least important perspective was perceived quality of the commercial bank.

#### V. Conclusion

From the study on the quality level of the internet banking service in Thailand, it was found that reliability, namely the security system and information accuracy, was the most important perspective for the user.

Comprehensively, reliability – the perspective which creates the reliability for the user - should be developed and improved for better performance. This would positively affect the commercial banks and lead to higher customer satisfaction.

The result of this research could be able to use as a guideline to setup a form of service in order to satisfy the needs of target group accurately and appropriately. Using as a database to set the market strategies in order to penetrate the target group efficiently, and also being use as a guideline to create a new form of service so that the users get more variety choices.

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