

The Impact of Internet Banking Service on Customer Satisfaction in Thailand: A Case Study in Bangkok

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Abstract— The purpose of this study was to find the internet banking service dimensions that will have the impact on customer satisfaction among top three banks in the Bangkok area: Bangkok Bank, Kasikorn Bank and Siam Commercial Bank. Questionnaires were used to collect data from 450 respondents by using quota sampling. Multinomial logistic regression analysis was employed to obtain the important internet banking service dimensions that have the impact on customer satisfaction. Results showed that providing 24hours-7days service, completing a task accurately, contacting staff to check immediately, providing accurate information & up to date, transaction process is fast, and providing online registration times were the important factors that have the impact on customer satisfaction.

Keywords— Customer Satisfaction, Internet Banking Service, Logistic Regression Analysis

I. BACKGROUND

In business field, Internet is used widely by masses, and has numerous benefits to offer, especially in Internet Banking services. Nowadays, people are so busy in their work lives, that they don't even have time to go to the bank for conducting their banking transactions. All banks provide online banking facility to their customers as an added advantage. Internet banking enables people to carry out most of their banking transactions using a safe website, which is operated by their respective banks. The services available online vary from bank to bank. Most of the general services are on all banking websites such as –view account balances, pay bills, view records of transactions, transfer money to linked accounts with the same bank, transfer money to specially selected unlinked accounts, check interest in accounts, send money overseas, Change your details, etc. [1].

These are not all of the services available because each bank is different and in the competitive nature of banks they are always offering new features to attract customers. Banks create their banking interfaces and websites in a viewable and

user-friendly manner, which enable customers to conduct their financial transactions with ease. All online banking services, provided by some banks, are free of cost [1].

Banks in Thailand have entered into internet banking service since 1995. However, many Thai banks have been striving to compete with foreign banks by providing better services to meet new Internet Banking service challenges. With high rate of NPL (Non-Performing Loans) and economic crisis on-hand since 1997, many Thai banks are forced to reduce cost via reduction of human resources. Many experienced workers have retired with early retirement package offered by the bank. Remaining employees with less experience have more work to do and work faster within shorter service hours. As a result, customers have to wait longer in line and suffer from error prone transactions at the over the counter services inside the banks. The open and closing time of bank service hours also have been changed from between 8:30 a.m. and 4:00 p.m. (7 ½ hours) to 9:30 a.m. to 4:00 p.m. (6 ½ hours) [13].

Therefore, the first four Thai banks (Thai Farmers Bank (TFB), Siam Commercial Bank (SCB), Bank of Asia (BOA) and Krung Thai Bank (KTB)) have decided to initiate, explore and attempt to launch Internet banking service as a mean to reduce waiting time, errors, costs, and improve customer satisfaction since 1997. Their Internet banking services allow customers to access and inquiry about their own accounts and perform simple frequently asked transactions via the Internet from their computers at work or home at their convenience time. However, the feedback from customers in terms of satisfaction, complaints, and suggestions remain unknown and needed to be discovered in order to improve or disprove of internet banking services. The remaining nine Thai banks are in early stages of planning, developing and implementing their first internet banking services to their customers [13].

Nowadays, Banks have a lot of competitors not only other commercial banks but also international bank that open in Thailand, especially in Bangkok. It is better for customers to have more choice to select best brand of bank for them to satisfy their need but for banks, they have to find the ways to satisfy customer and keep competitive advantages above other banks. Bangkok Bank got the first prize from Bank of the year award in year 2010 followed by Siam Commercial Bank and Kasikorn Bank respectively. These imply that customers

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prefer to use Bangkok Bank, Siam Commercial Bank, and Kasikorn Bank the most so this project is needed to evaluate customer satisfaction of Internet banking quality among Bangkok Bank, Siam Commercial Bank, and Kasikorn Bank.

II. OBJECTIVES OF RESEARCH

The purpose of this study was to find the internet banking service dimensions that have the impact on customer satisfaction among top three banks in the Bangkok area: Bangkok Bank (BB), Kasikorn Bank (KB) and Siam Commercial Bank (SCB).

III. LITERATURE REVIEW

A. *Related Theories and Previous Studies*

The customer satisfaction is defined as a judgment that a product or service feature, or the product or service itself, provide (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under or over fulfillment [15]. Moreover, customer satisfaction is considered to be one of the most important competitive factors and will be the best indicator of a company's profit ability. In addition, customer satisfaction will drive company to improve their reputation and image, to reduce customer turnover, and to increase attention to customer needs. Such actions will help company create barriers to switching, and improve business relationships with their customers [14].

Service quality has recognized as a key factor in keeping competitive advantage and sustaining satisfying relationships with customers [21]. Service quality leads to overall customer satisfaction. Service quality is one of the service factors contributing to customers' satisfaction judgments and can be considered in multi-level and multi-dimensional [2], [3]. Service quality in internet banking website may enhance customer satisfaction because in internet banking can access to a variety of financial transaction [10].

Yang, Jun, and Peterson [20] identified five online service quality dimensions (responsiveness, reliability, competence, access and security) and their relationships with the customer satisfaction. Wolfenbarger and Gilly [19] observed that reliability and fulfillment are the strongest predictors for customer satisfaction. Liu and Arnett [11] identified five critical dimensions of online service quality in relations to customer satisfaction in the website. Among these, the quality of information that is relevant, accurate, timely, customized and complete are given priority for the customer satisfaction in the online service. Johnston [6] identified attentiveness, responsiveness care and friendliness as the main sources of satisfactions (satisfiers) in banking services, and integrity, reliability, availability and functionality as the main sources of dissatisfaction. Khalil and Pearson [9] have found that trust significantly affects attitude towards Internet banking acceptance. To encourage Internet banking adoption, banks need to develop strategies that improve the customer's trust in the underlying technology. The other factors include quick response, assurance, follow-up and empathy. Security, correct transaction, customer control on transaction (personalization), order tracking facilities and privacy are other important

factors in the online service that affect the customer satisfaction. Joseph and McClure [7] investigated the influence of internet on the delivery of banking services. They found six underlying dimensions of E-banking service quality as convenience and accuracy, feedback and complaint management, efficiency, queue management, accessibility and customization. Jun and Cai [8] identified 17 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 also suggested that some dimensions such as responsiveness, reliability and access are critical for both traditional and internet banks.

B. *Definition and features of independent variables*

Safety Reliability

Reliability is defined as the firm performs the services right the first time and the firm honors its promises. It involves in accuracy in billing, keeping records correctly, performing the service at the designated time. In their further research, they also find the reliability consists of providing services as promised, dependability in handling customers' service problems, performing services right the first time, provide services at the promised time and maintaining error-free record. Furthermore, they stated reliability as the most important factor in conventional service [16], [17].

Transactions Efficiency

Transaction efficiency is the ability of the customers gets in to website, find they desire product and information associate with it, and check out with minimal of effort. Transaction efficiency also can understand as performance of Internet banking base on some elements: up to date information, response time, download time, complete product information, tutorial/demonstration, and help function [12].

Customer Support

Customer support including before sell support and after-sell supports. Before customer make decisions, the company should give some support to attract them, let customers feel they are at home. The relationship is like a good friend not like a business. After customers buy the services or products, company should solve the problem that customers met or response customers' questions immediately and according to the problems, company can ameliorate them.

In the Internet banking industries, support is also important. Not everyone good at the computer so they need guide how to use. And maybe someone good at computer, but still have problems, and then they also need support. Sometimes, after services on the internet, customers might have questions waiting to answer, so he or she also needs support. So support is very important for customers

Service Security

Security is defined as the freedom from danger, risk, or doubt. It involves physical safety, financial security and confidentiality. It consists of employees who instill confidence

in customers, making customers feel safe in their transactions, employees who are consistently courteous and employees who have the knowledge to answer customer question [16]. Moreover, security is defined as personal and possessions safety of the customers. It is includes confidentiality maintained by service providers [6].

Ease of Use

Ease of use is as the factor influencing the adoption of Internet banking, and related to an easy-to-remember URL address, well-organized, easy in site navigability, concise and understandable contents, terms and conditions [18].

Performance

Performance refer to product’s primary operating characteristic which is based on functional requirement, not taste with is circumstantial preferences [4]. Performance is the operating quality of each Internet banking service and feature offered by each bank.

Service Content

Service content is all information that provides to customers. For internet banking service, is mean the content that bank provide to customers through website. High value-added content is essential.

IV. RESEARCH MODEL

The aim of this study was to examine the impact of seven internet banking service quality dimensions on customer satisfaction by the bank (see Figure 1).

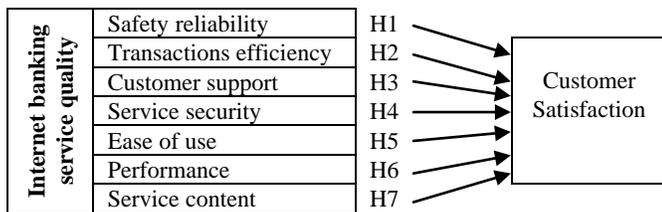


Fig. 1 Research Model

The seven hypotheses are as follows:

- H1: Safety reliability will have a significant impact on customer satisfaction
- H2: Transaction efficiency will have a significant impact on customer satisfaction
- H3: Customer support will have a significant impact on customer satisfaction
- H4: Service security will have a significant impact on customer satisfaction
- H5: Ease of use will have a significant impact on customer satisfaction
- H6: Performance will have a significant impact on customer satisfaction
- H7: Service content will have a significant impact on customer satisfaction

TABLE 1 Service Quality Dimensions

1. Safety reliability	
1.1	<i>IBS perform the service right at the first time</i>
1.2	<i>IBS deliver the service exactly as promise</i>
1.3	<i>IBS completes a task accurately</i>
2. Transactions efficiency	
2.1	<i>Information in IBS is up to date</i>
2.2	<i>IBS provide complete help function</i>
2.3	<i>Transaction process is fast</i>
3. Customer support	
3.1	<i>IBS contains enough services</i>
3.2	<i>Case of problem happen, can contact staff immediately</i>
3.3	<i>IBS contains comprehensive FAQs section to guide for common problem</i>
3.4	<i>IBS process to solve problem fast</i>
3.5	<i>IBS provide knowledgeable staff to solve problem</i>
3.6	<i>Staff can describe step to use and condition to use clearly</i>
4. Service security	
4.1	<i>IBS keeps accurate record of transaction</i>
4.2	<i>IBS provide security for transaction data and privacy</i>
4.3	<i>No problem during using IBS service</i>
4.4	<i>IBS is secure</i>
4.5	<i>Feel safe when using IBS</i>
4.6	<i>Can check validity and detail of past transaction every time</i>
5. Ease of use	
5.1	<i>Easy to find information in the IBS system</i>
5.2	<i>IBS website is easy to use</i>
5.3	<i>The language in website is easy to understand.</i>
5.4	<i>The output format is easy to read.</i>
5.5	<i>Information and text are clear and easy to understand</i>
5.6	<i>IBS system provides clear instruction.</i>
5.7	<i>IBS display output or transaction fast</i>
6. Performance	
6.1	<i>IBS site provide in multi-language</i>
6.2	<i>IBS provide 24hours -7 days service</i>
6.3	<i>Allow to transfer between bank</i>
6.4	<i>Provide online registration</i>
7. Service content	
7.1	<i>IBS website provides information that exactly fits needs.</i>
7.2	<i>IBS website provides accurate information.</i>
7.3	<i>IBS website provides information that trust.</i>

V. METHODOLOGY

This study was designed to use the survey method to obtain data from sample consumer and the quota sampling technique was used in collecting the sample data. Pre-test was conducted and measures the reliability with Cronbach’s Alpha coefficient in order to determine the reliability of the instrument used. Hair [5] has suggested the values of 0.6 to 0.7 as the acceptable level for reliability measure. The overall Cronbach’s Alpha coefficient of survey instrument is 0.831, this guarantee that the instrument used, questionnaires, is the good tool for data collecting. The questionnaires were distributed to respondent who have been using Internet banking from October 2011 through December 2011 among top three banks in the Bangkok area: Bangkok Bank, Kasikorn Bank and Siam Commercial Bank. A total of 450 respondents were participated in this study. Logistic Regression Analysis was employed to obtain the important internet banking service dimensions that will have the impact on customer satisfaction.

VI. RESULTS

Regarding to multinomial logistic regression at the level of significance 0.05, it can be investing the factors affecting customer satisfaction toward internet banking service provider among top three banks: Bangkok Bank, Kasikorn Bank, and Siam Commercial Bank as presented follows:

TABLE 2

Multinomial Logistic Regression Results for Kasikorn Bank

Service Quality Dimension	B	Sig	Exp (B)
1.3 Complete a task accurately	-0.405	0.020	0.667
2.2 Provide complete help function	0.299	0.029	1.349
3.2 In case of problem happen, can contact staff to check immediately	-0.283	0.040	0.753
6.2 Provides 24hours-7days service	-0.430	0.002	0.651

The reference category is: Bangkok Bank

TABLE 3

Multinomial Logistic Regression Results for SCB Bank

Service Quality Dimension	B	Sig	Exp (B)
1.3 Complete a task accurately	-0.565	0.001	0.568
3.2 In case of problem happen, can contact staff to check immediately	-0.353	0.009	0.702
4.1 IBS keeps accurate record of transaction	0.374	0.010	1.454

The reference category is: Bangkok Bank

TABLE 4

Multinomial Logistic Regression results for Bangkok Bank

Service Quality Dimension	B	Sig	Exp (B)
1.3 Complete a task accurately	0.405	0.020	1.500
2.2 Provide complete help function	-0.299	0.029	0.741
3.2 In case of problem happen, can contact staff to check immediately	0.283	0.040	1.327
6.2 Provides 24hours-7days service	0.430	0.002	1.537

The reference category is: Kasikorn Bank

TABLE 5

Multinomial Logistic Regression Results for SCB Bank

Service Quality Dimension	B	Sig	Exp (B)
3.6 Staff can describe step to use and condition to use clearly	-0.315	0.025	0.730
5.1 Easy to find information in the IBS system	0.319	0.047	1.376
5.2 IBS website is easy to use	-0.340	0.046	0.712

The reference category is: Kasikorn Bank

TABLE 6

Multinomial Logistic Regression Results for Bangkok Bank

Service Quality Dimension	B	Sig	Exp (B)
1.3 Complete a task accurately	0.565	0.001	1.759
3.2 In case of problem happen, can contact staff to check immediately	0.353	0.009	1.424
4.1 IBS keeps accurate record of transaction	-0.374	0.010	0.688

The reference category is: SCB Bank

TABLE 7

Multinomial Logistic Regression Results for Kasikorn Bank

Service Quality Dimension	B	Sig	Exp (B)
3.6 Staff can describe step to use and condition to use clearly	0.315	0.025	1.370
5.1 Easy to find information in the IBS system	-0.319	0.047	0.727
5.2 IBS website is easy to use	0.340	0.046	1.405

The reference category is: SCB Bank

TABLE 8

Classification Results of Multinomial Logistic Regression

Observed	Predicted			
	Bangkok Bank	Kasikorn Bank	SCB Bank	Percent Correct
Bangkok Bank	82	30	38	54.7%
Kasikorn Bank	40	68	41	45.6%
SCB Bank	44	35	71	47.3%
Overall Percentage	37.0%	29.6%	33.4%	49.2%

VII. DISCUSSION AND CONCLUSIONS

Based on the logistic regression results, Hypotheses 1 to 6 were supported, but Hypotheses 7 was rejected. This finding found that the impact of Internet Banking Service on customer satisfaction for each Bank is as following factors:

Bangkok Bank:

- IBS provides 24hours-7days service
- IBS complete a task accurately
- In case of problem happen, customers can contact staff to check immediately.

Kasikorn Bank:

- IBS website provides accurate information
- IBS website provides information that exactly fits customers need
- Information on IBS is up to date.

Siam Commercial Bank:

- IBS provides 24hours-7days service
- Transaction process is fast
- Provide online registration

Nowadays, the competition between the competitors of Internet Banking is intense. Therefore each of banks should provide the best elements to customers. As a consequence of high competition in this area, all of the banks try to develop their services and internet banking system, as much as possible, to match customer satisfaction. Banks should make effective decision in service development and marketing strategies for staying competitive advantage in this industry.

Results of this study could suggest the strong points and weak points for each bank as follow:

Bangkok Bank:

- Strong points are "IBS provide complete help function" and "IBS keeps accurate record of customer transaction".

- Weak points are "IBS completes a task accurately", "In case of problem happen, customers can contact staff to check immediately" and "IBS provide 24hours-7days services".

So Bangkok Bank should improve accurately when a task completes, and provide 24hour-7days services with enough staffs, so that customers can contact as soon as possible.

Kasikorn Bank:

- Strong points are “IBS completes a task accurately”, “In case of problem happen, customers can contact staff to check immediately”, “IBS provide 24hours-7days hours”, and “Easy to find information in the IBS”.

- Weak points are “IBS provide complete help function”, “Staff can describe step to use and condition to use clearly” and “IBS website is easy to use”.

So Kasikorn Bank should have completely help function that makes IBS website is to uses, and training the staff better to be more professional.

Siam Commercial Bank:

- Strong points are “IBS completes a task accurately”, “In case of problem happen, customers can contact staff to check immediately”, “Staff can describe step to use and condition to use clearly”, and “IBS website is easy to use”.

-Weak point is “IBS keeps accurate record of transaction”.

So Siam Commercial Bank should increase the accuracy of the transaction to make the customers satisfy.

ACKNOWLEDGEMENTS

The authors would like to thank King Mongkut’s Institute of Technology Ladkrabang, and Assumption University, Thailand, for supporting us in conducting this study. We are very grateful to all the assistance given us

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