

## The Attitude Towards Internet Banking Service under Financial Activity in Essential of Economic Area at Western in Thai Gulf of Thailand

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### Abstract

This research aims to identify customer satisfaction with online financial services with internet banking and determine the factors to customer satisfaction with online financial services with internet banking by deploying SEM (Structure Equation Models). The simple random sampling was applied to select twelve (12) banks in Thailand. Sample of 1,800 respondents were observed using web based survey questionnaire. The respondents were using online financial services with internet banking and resided in economic area at western in Thai Gulf of Thailand. The findings found that the factors of customer's attitudes and satisfaction of online financial service with internet banking were expectations, perceived quality, perceived value, and loyalty related to SEM model as statistically significance. In other words, safety service was not related to the hypothesis.

**Keywords:** 1) SEM (Structure Equation Models) 2) customer satisfaction 3) online financial satisfaction

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## Introduction

Currently, the competition in digital technology is widely and highly situation. Meanwhile, internet and social network play roles in a daily basis of human beings in their social life that had been changed. This technology was used as one of channels for business operation and made customers can access easily with upmost fastest. It affected to people to make a decision for using and buying goods and service products. Whether its consumer goods or other services such as Lazada, Shopee and/or financial transactions through any kind of applications i.e. K-Cyber, ktbnbank, scbeasy, Bualuang ibanking.

The Technological advances in telecommunications and communications affect to the business operations of financial transactions in commercial banks. The current situation in commercial banks is more competitive plus it becomes necessity to improve and develop their services with up to date and associate with using new technology to support operation. However, online financial services with internet banking were facilitated and satisfied for the needs of customers at anywhere and anytime especially the financial transaction service through internet banking system. It was one of online financial transactions on the internet which banks use as additional channels to expand their customer's base. (Bagozzi, 1992, pp. 15-1560) Moreover, maintain its market share including reduce operating cost and it resulting to increase revenue also advantages for business competition and a potential development of the bank.

The researchers focused on customer satisfaction of online financial services with

internet banking and factors affect to customer satisfaction of online financial services with internet banking by deploying SEM (Structural Equation Models) and ACSI (The American Customer Satisfaction Index Model). This paper helps banking industry at area at western in Thai Gulf of Thailand to explain the behavior customers of choosing to use the internet banking system for financial transactions by adding safety factors into model.

## Objectives

This research is aimed to study factors which affect to a decision making on using online financial service with internet banking. The purposes of this research are:

- 1) To identify customer satisfaction with online financial services with internet banking.
- 2) To identify the factors to customer satisfaction with online financial services with internet banking by deploying SEM (Structural Equation Models).

## Benefits

The beneficial of this research are:

- 1) Knowing and understanding towards customer attitude of online financial service with internet banking.
- 2) Understanding towards factors affect to customer satisfaction of online financial service with internet banking as deployed ACSI (The American Customer Satisfaction Index Model).
- 3) Understanding towards factors affect to opportunity usage of online financial service with internet banking

To investigate the customer attitude with online financial services with internet banking

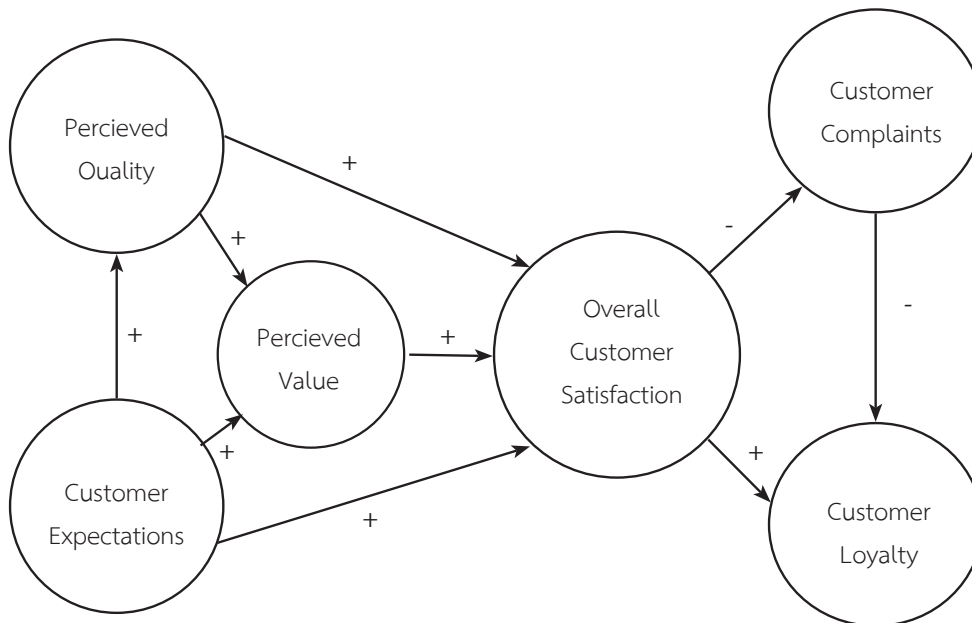
and factors into affecting towards attitude and opportunity are using internet banking.

### Theoretical Framework

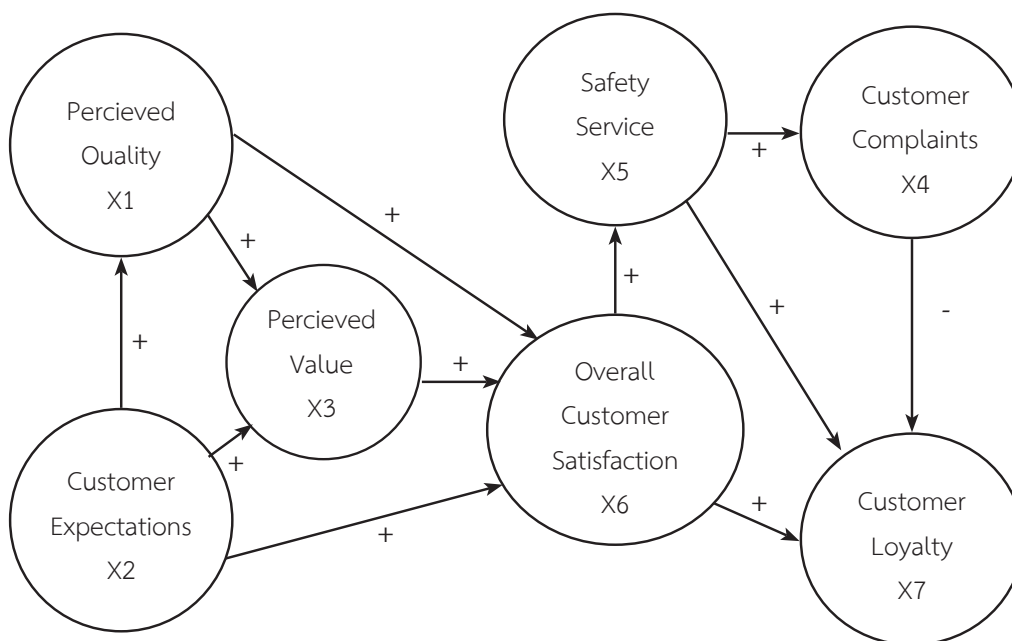
#### American Customer Satisfaction Index Model (ACSI)

According to the American customer satisfaction index model (ACSI) stated that there

are three (3) factors developed by Michigan University, USA; perceived quality, customer expectation and perceived value. As three (3) factors mentioned affect into customer satisfaction that can be measured two (2) factors such as customer complaints and customer loyalty as ACSI shown on Picture No. 1 (David, et al., 1985, pp. 319-339)



Picture No. 1 ACSI Model



Picture No. 2 Research ACSI Model



It can be seen on Picture No. 1 perceived quality of online financial service with internet banking from application of each bank via mobile phone services included deposit, withdrawal, transfer, payment bills for goods and services. Plus, check account balance and it can be evaluated the effectiveness of banking services by based on customer experience directly. Customer expectation is composed of; prior consumption expectation from each bank and perceived value factor by comparing perceived quality with convenience and security to access its system. (Al-Somali, et al., 2009, p.132). It can be reflected to customer satisfaction through safety via customer complaints towards their application plus customer loyalty on Picture No.2.

### Methodology

Sampling was conducted by random sampling from users who have been using online financial service with internet banking in economic area at western in Thai Gulf of Thailand. The researchers sent emails to target respondents of twelve banks; KTB, SCB, BBL, BAY, KKP, TMB, TBank, GHB, CIMB, GSB, BAAC and KBank. Users were voluntary self-selected that were invitation post on web site as statements shown objectives of the research and link provided for questionnaire. A total of 1,800 respondents were responded and suitable proportion in each bank by survey from online questionnaire. This research was applied quantitative research methodology by collecting data with online questionnaire and data analysis with multivariate statistical procedure. The questionnaire was divided into two parts; (1) demography; gender, age, marital status, occupation, education, income,

book value, frequency of use, and regular transactions, (2) all items were measured on five level of Likert Scale. The 5 scales were; (1) extremely disagree to (5) extremely agree to measure variables and factors as conceptual framework were set and there were composed of satisfaction of customer expectation which were two questions for all factors such as perceived quality, perceived value, customer expectation, overall customer satisfaction, customer complaints, safety service and customer loyalty accordingly. Those all measurements were tested their reliable by index of congruence for five expert professors to average equal 0.905 and by factor analysis with principal component analysis (PCA) method and cronbach alpha as:

Perceived quality ( $x_1$ ) had alpha Cronbach equal 0.955

Customer expectation ( $x_2$ ) had alpha Cronbach equal 0.944

Perceived value ( $x_3$ ) had alpha Cronbach equal 0.951

Customer Complaint ( $x_4$ ) had alpha Cronbach equal 0.732

Safety Service ( $x_5$ ) had alpha Cronbach equal 0.932

Overall Customer Satisfaction ( $x_6$ ) had alpha Cronbach equal 0.934

Customer Loyalty ( $x_7$ ) had alpha Cronbach equal 0.948

It can be shown that; all factor analysis and reliability of questionnaire were higher than 0.7 and it reflected that the questionnaire was measured the variables as stated on conceptual framework appropriately and reliability.

All variables based on conceptual framework of this research which measured

by Likert scale 5 level questionnaires. There were consisted of satisfaction of customer expectation, perceived quality, overall customer satisfaction, complaints, safety and loyalty of online financial service with internet banking. These factors can be calculated to form a variable from all questions in each variable then calculated for average. After, there was adjusting its value between 0 and 1. By means, if a variable was 0 it means extremely disagree, if it was 0.5 means moderate, and if it was 1 means extremely agree.

#### Data analysis

To test the hypothesis of this research to reach its objectives shall be followed below instructions: Studying of factors were affecting the satisfaction of online financial service with internet banking based on the conceptual of research which applied for this research to test the hypothesis by Structure Equations Model (SEM) as shown in details on Figure 5. This research can be estimated its value with Maximum Likelihood Estimation Model (MLE).

#### Research Findings

There were 1,800 respondents from survey online questionnaires, mostly were female, single status, 21 – 35 years old, HuaHin Pranburi and Petchaburi native habitat, private employee and educators, bachelor degree, and income; below 15,000 baht. Behavior of respondents mostly were value in accounting below 10,000 baht, services, frequency of services for 1-5 time per month and transactions via NETBANK, transfer per time for e-banking about 501-3,000 baht per time. Table No. 1 shown selection of Bank service for e-banking mostly were KBank which commercial bank service via e-banking was more than government bank. All variables satisfaction as stated on the research conceptual framework measured by Likert scale, ranging from 0 – 1 which consisting of customer expectation, perceived quality, perceived value, overall satisfaction, complaints, safety and loyalty.

**Table No. 1** Netbank which respondents select bank service

Select Bank services for E – banking (Select more than 1)	Select	%	Unselect	%
KrungThai Bank (KTB)	568	31.6	1,232	68.4
Siam Commercial Bank (SCB)	672	37.3	1,128	62.7
Bank for Agriculture and Agricultural Cooperatives (BAAC)	72	4.0	1,728	96.0
Bangkok Bank (BBC)	397	22.1	1,402	77.9
Kasikorn Bank (KBANK)	737	40.9	1,063	59.1
Bank of Ayudhya Public (BAY)	148	8.2	1,652	91.8
Kiatnakin Bank Public (KKP)	19	1.1	1,781	98.9
Thai Military Bank (TMB)	365	20.3	1,435	79.7



Table No. 1 (Continued)

Select Bank services for E – banking (Select more than 1)	Select	%	Unselect	%
Thanachart Bank (TBANK)	17	0.9	1,782	99.0
Government Housing Bank (GHB)	11	0.6	1,789	99.4
Government Saving Bank (GSB)	129	7.2	1,671	92.8
Thai Bank Public (CIMB)	8	0.4	1,792	99.6
<b>Total</b>	<b>3,143</b>	<b>14.55</b>	<b>18,455</b>	<b>85.4</b>

Table No. 2, shown the mean of all variables of the model; bank service type which associated with using NETBANK services. The hypothesis testing found that the mean of variable in each bank whether different or not.

Bivariate analysis of all variables categorized by bank service type as shown on Table No. 2 found that the average of all variables was different statistically significant especially commercial bank such as SCB, BBL and KBank.

Table No. 2 Analysis Variables Separate for Bank service

Factor	t-test					
	SCB	BBL	KBank	Bay	TMB	KTB
Quality	-3.917***	-7.268***	-5.841***		28.667***	
Expectation	-3.504***	-6.527***	-5.685***	-2.610**	26.964***	
Value	-4.537***	-6.274***	-5.888***	-2.433*	26.765***	
Complaint	0.206	-2.802***	-2.078*		14.628**	
Safety	-4.156***	-7.803***	-4.726***		25.515***	
Overall	-4.205***	-5.750***	-4.47***		23.935***	
Loyalty	-4.087**	-6.654***	-5.312***		26.282***	
<b>Total</b>	<b>-3.865***</b>	<b>-7.040***</b>	<b>-5.386***</b>		<b>27.729***</b>	

Note \*significant at 0.1, \*\*significant at 0.05, \*\*\* significant at 0.01

Table No. 3, shown the mean of all variables of the model; marital status, age, occupation, habitat, income and value associated with NETBANK satisfactions via different statistically significant. The mostly satisfaction in each demographic characteristics as age 21-35 year old, single, occupation of

private business, income 75,001-100,000 baht, habitat at western area, value accounting about below 10,000 baht, frequency of services for 11-15 times/month and transactions via NETBANK about higher 10,001 baht per time.

And the least satisfaction in each demographic characteristics as age 45-60 year

old, divorce, occupation of governor, income frequency of services for 1–5 times/month  
50.001-75,000 baht, habitat at north area, and transactions via NETBANK between 6,001-  
value accounting about higher 100,001 baht, 10,000 baht per time.

**Table No. 3** Analysis Variables Separate for Demography

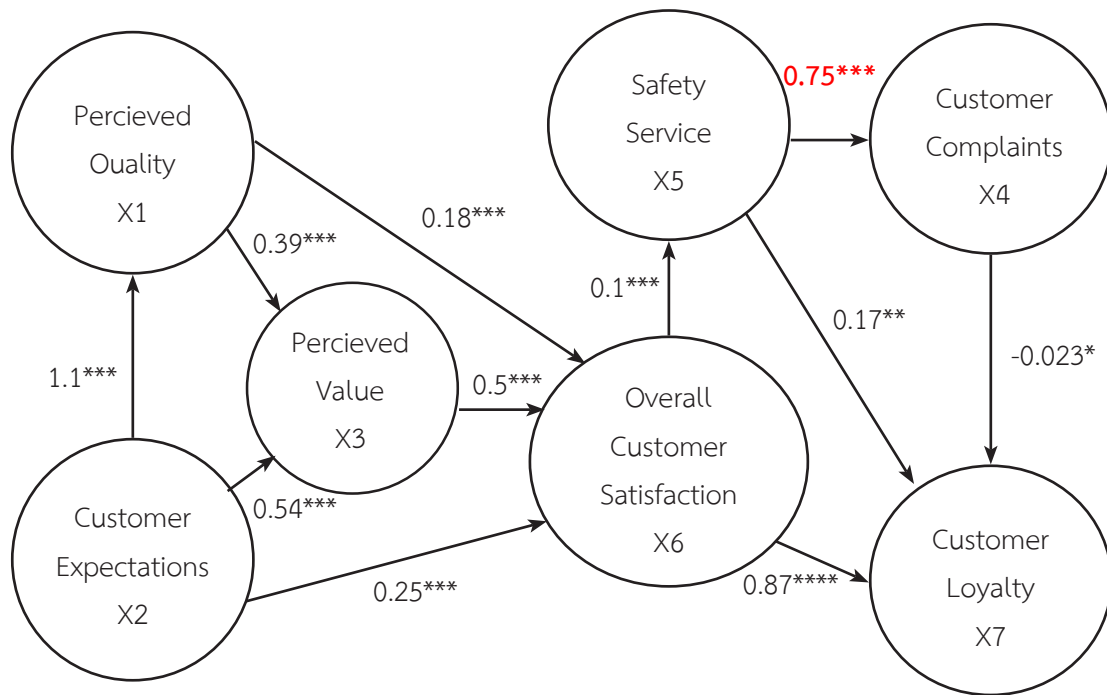
Factor	F-test					
	AGE	STATUS	Habitat	Occ	Income	Value Acc
Quality	7.964***	19.550***	6.273***	19.684***	4.426***	2.541*
Expectation	5.866***	17.183***	6.173***	19.050***	3.378***	4.515**
Value	6.680***	16.221***	6.046***	19.218***	3.732***	
Complaint	6.974***	9.056***		5.827***		
Safety	6.482***	21.241***	3.824***	21.427***	2.613*	3.150*
Overall	8.925***	23.634***	4.379***	18.958***	4.826***	4.094**
Loyalty	5.270***	18.835***	4.024***	21.329***	3.905***	3.903**
<b>Total</b>	<b>7.845***</b>	<b>21.237***</b>	<b>4.443***</b>	<b>20.134***</b>	<b>3.864***</b>	<b>3.234*</b>

Note \*significant at 0.1, \*\*significant at 0.05, \*\*\* significant at 0.01

#### Estimate and SEM analysis results

Results of estimating and SEM model as shown on Picture No.3 and found that the results of Chi-squares tests, model vs. saturated and baseline vs. saturated was null hypothesis significantly. The SEM cannot be explained data; however, goodness of fit

indices, comparative fit indices (CFI), tucker lewis index (TLI) and coefficient of determination (CD) was greater at 0.9 and RMSEA was lower. In other words, MLE (Maximum Likelihood Estimation Method) model explained the variance of the data was a good fit.



**Picture No. 3** SEM Model for E-Banking Service

The model estimation results shown that all variable of the model were correlated with the conceptual framework of this research model by begun with exogenous variables analysis which consisted of:

1) Customer expectations of online financial service with internet banking was positive affected significantly at 1.1 into the perceived quality and positive affected to perceived value at 0.54 significantly with positive affected to overall customer satisfaction at 0.25.

2) Perceived quality of online financial service with internet banking positive was positive affected significantly at 0.39 and 0.18 respectively to perceived value and overall customer satisfaction accordingly.

3) Safety Service of online financial service with internet banking positive was positive affected significantly at 0.75 and 0.17 respectively to Customer complaints and

customer loyalty accordingly.

4) Customer complaints reflected to overall customer satisfaction was negative at -0.023 significantly affected to customer loyalty.

5) Safety Service of online financial service with internet banking was positive affected significantly to Customer complaints but it was not followed with hypothesis.

#### **Impacted to endogenous variables**

1) Perceived value of online financial service with internet banking was reflected to perceived value and customer expectations which affected into overall customer satisfaction with positive significantly at 0.5.

2) Overall customer satisfaction reflected to perceived value, perceived quality and customer expectation was positive at 0.1 into safety service and customer loyalty at 0.87 significantly.



## Analysis

The purpose of this research was to investigate and analyze attitudes towards the use of online financial service with internet banking, consumer attitudes towards the use of financial transaction services of commercial banks via the internet banking. Factors affecting the attitudes and intention of using commercial banking services via internet banking. This analysis was applying the Structural Equation Models (SEM), the American Customer Satisfaction Index Model (ACSI).

Consumer attitudes towards the use of online financial service with internet banking, the study indicated that factors of customer expectation on internet banking service was important to the ease of use of commercial banking services through the internet. One-Sample t-test hypothesis and One-Way ANOVA confirmed that the characteristics of the users were different; there were different expectations of the customers on the financial transaction services of commercial banks through the internet banking statistically significant level.

The perceived quality of online financial service with internet banking was the importance of modern technology. The results of the tests confirmed that the characteristics of the users except the different genders had the same perceived quality of online financial service with internet banking statistically significant level.

The perceived value of online financial service with internet banking was paid attention to the quality of service provided. The results of the tests confirmed that the characteristics of the users except the different genders were

different it resulting to perceived value of online financial service with internet banking was also different with statistically significant level.

Overall customer satisfaction factor of online financial service with internet banking focused on, the convenience. The results confirmed that the characteristics of the users were different; the overall customers' satisfaction of receiving online financial service with internet banking was also different with statistically significant level.

Customer complaints factor of online financial service with internet banking focused on problems through public media such as Facebook. The results confirmed that the characteristics of the users except the different genders was different which the complaints also different with statistically significant level.

Customer loyalty factor of online financial service with internet banking focused on return to use the service in the near future. The results confirmed that the characteristics of the users would had a customer loyalty in different level with statistically significant.

The study of factors were affecting to customer satisfaction of online financial service with internet banking by deploying SEM. It was explained that all factors were associated with the hypothesis both studied on relation of the direction to use and affirmation online financial service with internet banking. Exception, the safety service and customer complaints of online financial service with internet banking were not related to the hypothesis. Because the safety service questions were positive direction via the customer complaints questions of online financial service with internet banking.



## Conclusion

The purpose and scope of this research was to investigate the customer attitudes and factors to customer satisfaction of online financial service with internet banking. The customer attitudes of their expectations, perceived quality, perceived value, and loyalty were related to SEM model as statistically significance. In other words safety service and complaints were not related to the hypothesis.

The expectations focused on its fast and convenience, the perceived quality was mainly to new technology, the perceived value was highlighted to service, the overall customer satisfaction focused on fast and convenience same as expectations and the loyalty were re using the services because it's fast and convenience. Whereas, customer complaints was mainly social media such as Facebook.

## Limitation and Suggestions

The limitations from this research are related to the samples and design. The demographic information for the samples

such as female gender, ages between 21-35 years old, occupation, level of education, income: lower 15,000 THB/month and value of account is less than 10,000 THB plus the frequency to be used 1-5 times/month and other transactions – fund and properties. Another limitation is government sectors and banker must more provide and support for security system of netbank application, technology development.

Future study should focus on the effectiveness of using online financial services with internet banking and comparison of their service each area.

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