The Influence of Trust Management and E-Loyalty of Internet Banking Users: Evidence from Southern Thailand

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Abstract

The study aimed to determine the relationship between e-loyalty and the three components of trust management: security, quality of service and trust-based marketing among internet banking users in Southern Thailand. Using convenience sampling, 365 internet banking users were surveyed. Descriptive analysis, correlation matrix, and multiple regression were used to analyze the data used in this study. This study found significant positive relationships of between security, service quality, and income on e-loyalty of internet banking users, while there was a significant negatively relationship between age of users and their e-loyalty. This study suggests that trust management by banks wanting to develop e-loyalty should focus on reporting tangible developments in quality of service and security of transactions, and that such marketing should focus on older and poorer customers, conservative demographics that are identified in this study as being hesitant to develop e-loyalty.

Keywords: Trust Management, E-loyalty, Internet Banking, Southern Thailand

Introduction

The fabric of trust between service users and banks determines the prospects of survival and growth for banks (Eid, 2013). The process whereby a bank builds up trust by enhancing its image, either among customers or other stakeholders, is described as trust-management (Malik & Bouguettaya, 2009). There are features a bank can emphasize as part of trust management, including quality of service (Eid, 2013), assurance of security (Malik & Bouguettaya, 2009) and track record (Malik & Bouguettaya, 2009).

The rise of internet banking in recent years has faced significant problems with the development of trust, because the intangible and impersonal interactions involved reduce if not nullify many of their conventional methods of trust management (Jauhari & Dutta, 2017). New methods of trust management are required, to reassure customers about the security of online transactions (Mauw & Jensen, 2014). In this instance, the tendency of customers to make use of internetcommerce, despite concerns or doubts can be defined as electronic loyalty or e-loyalty (Shahbazi, 2011).

However, the efficiency of the components of these new methods of trust management of e-loyalty remains largely untested, particularly in developing countries where internet-based technologies are newly arrived, poorly understood and thus potentially seen as untrustworthy.

For example, it remains unknown whether service quality is more important than security in developing e-loyalty.

This study aims to determine the relationship between e-loyalty and the three components of trust management: security, quality of service and trust-based marketing among internet banking users in Southern Thailand. The results of this study will not only be useful for an understanding of e-loyalty and its promotion in Thailand, but may be generalizable to other developing countries.

Literature Review and Hypothesis Development

Defining e-loyalty

The development of internet-supported technologies has opened up many opportunities for business, one of the most significant being e-retailing, whereby customers conveniently carry out their transactions using internet supported devices facilitated by internet banking (Shahbazi, 2011). A customer's tendency to continue making transactions through the internet can be defined as e-loyalty (Shahbazi, 2011).

Trust Management

Banks use a range of tactics and strategies to build bonds with their customers where trust remains at the forefront. Raab, Ajami, & Goddard (2016) holds that trust management is the sum of strategies, tactics, and techniques that a business brings to use in order to build and sustain trust among its target audience. This study focusses on three distinct aspects of trust management: security, service quality, and marketing (Malik & Bouguettaya, 2009).

Security

Althobaiti & Mayhew (2014) hold that every sane bank customer demands a secure environment to make a transaction. Customers are certainly more willing to place trust on the banks that are able to assure them that their money and transactions are safe (Komb, Korau, Belás, & Korau, 2016). Security also encourages customers feel confident about banks and the reliability of their services (Kundu & Datta, 2015).

Although internet banking has brought about unimaginable convenience to customers, it has also brought about vulnerability. The history of internet abounds with reports and urban legends of scams and frauds leaving people with lifelong distressthat cannot be trivialized. It is understandable that customers are attracted to banks known to have a strong securitysystem and reluctant to engage with a new provider whose security is unknown to them (Kundu & Datta, 2015). Hence, a bank's high level of security can positively and significantly contribute to e-loyalty.

The first hypothesis to be tested by this study is:

H1: There is a significant relationship between security and e-loyalty of customers in the banking sector of Thailand.

H10: There is no significant relationship between security and e-loyalty of customers in the banking sector of Thailand.

Service Quality

Quality of service is another important feature that banks have traditionally emphasized as part of trust management. Pasha & Razashah (2018), for example, argue that quality of service lies at the center of all efforts that a bank extends to build lasting ties with customers.

There is a consensus that service quality is made up of five dimensions (Amin, 2016). The first, tangibles, are the physical infrastructure such as branches and human resources, investment in which is a sign of credibility (Jauhari & Dutta, 2017). The second, reliability, stems from the ability of a provider to accurately and dependably serve its customers (Jauhari & Dutta, 2017). The third, responsiveness, refers to the ability of a provider to promptly respond to customers' needs and provide quick assistance for any problems (Jauhari & Dutta, 2017). The fourth, assurance, is derived from a provider using courtesy during service to build customer confidence (Jauhari & Dutta, 2017) The fifth, empathy, is the level of care and personalized attention that a provider can demonstrate while serving its customers (Jauhari& Dutta, 2017).

The importance of quality of service has not changed with the arrival of internet-based commerce However, it has changed the emphasis given by a bank to the various dimensions that make up quality of service.

The second hypothesis that this study will test is:

H2: There is a significant relationship between service quality and e-loyalty of customers in the banking sector of Thailand.

H20: There is no significant relationship between service quality and e-loyalty of customers in the banking sector of Thailand.

Trust-based Marketing

Although developing suitable security measures and working on quality of service are important trust management tools for a bank, they are of limited use if doing so is not made known to the public via marketing. López-Miguens & Vázquez (2017) opine that marketing is an important component of trust management because it affords the opportunity to clear doubts and reinforce the sources of trust. Arcand, PromTep, Brun, & Rajaobelina (2017) went one stage further, arguing that a bank or any other institution cannot maximize the potential of its offers or features unless they are properly showcased.

The need for marketing is more pronounced for the banks in markets where the customers who are unfamiliar with the newly introduced service (Arcandet al., 2017). In Thailand, internet services have only recently been made available (Kingshott, Sharma, & Chung, 2018), so internet banking and commerce must be carefully marketed to explain and build up trust in the service. Although print, radio, television and internet-based advertising are offer excellent media for carrying trust-based marketing, the bidirectional communication offered by social media is held to surpass them because customers can get a rapid response to their queries and remarks, building a sense of connectedness with the bank (Kingshott et al., 2018).

The third hypothesis this study will test is:

H3: There is a significant relationship between marketing and e-loyalty of customers in the banking sector of Thailand.

H30: There is no significant relationship between marketing and e-loyalty of customers in the banking sector of Thailand.

Demographic Mitigating Effects

A number of demographic features of Thai customers have the potential to increase or reduce their susceptibility to the effects of trust management by banks. This study will consider the effects of gender, age, education and income, with the hypotheses:

H4: There is a significant relationship between customers' gender and e-loyalty of customers in the banking sector of Thailand.

H40: There is no significant relationship between customers' gender and e-loyalty of customers in the banking sector of Thailand.

H5: There is a significant relationship between customers' age group and e-loyalty of customers in the banking sector of Thailand.

H50: There is no significant relationship between customers' age group and e-loyalty of customers in the banking sector of Thailand.

H6: There is a significant relationship between customers' level of education and e-loyalty of customers in the banking sector of Thailand.

H60: There is no significant relationship between customers' level of education and e-loyalty of customers in the banking sector of Thailand.

H7: There is a significant relationship between customers' income and e-loyalty of customers in the banking sector of Thailand.

H70: There is no significant relationship between customers' income and e-loyalty of customers in the banking sector of Thailand.

Methodology

The population used in this study was internet banking users in Southern Thailand. It was planned that data from 400 internet banking users would be collected via an online questionnaire during March to April 2019.

An online questionnaire was prepared by using Google Form, with questions divided into three sections: (1) the internet banking users' demographic information: gender, age, education level, and income, (2) attitudes towardstrust management, and (3) e-loyalty. The questionnaire was adapted from those used in previous related studies.

Attitudes towards trust management and e-loyalty were measured by the five-pointLikert scale, in which 5 represented the most positive response through to 1 which represented the most negative response.The answers to each item were averaged and the mean values for each item were expressed based on five levels: 4.51-5.00 as the highest level, 3.51-4.50 as a high level, 2.51-3.50 as a moderate level, 1.51-250 as a low level, and 1.00-1.50 as the lowest level. This rating scale in this study was adapted from previous studies (Ghazali and Manab, 2013; Srisa-sard, 2010). Age was a continuous variable. The other demographic data questions: gender, education level and income, were dummy variables, grouping responses into male and female, bachelors degree or higher and lower than a bachelors degree, 15,000 baht per month and lower than 15,000 baht per month, respectively.

Table 1: Variables and their Measurement

Variables	Coded as	Measurement
1. E-loyalty	Y	Five-point Likert scale
2. Security	X1	Five-point Likert scale
3. Service quality	X2	Five-point Likert scale
4. Marketing	X3	Five-point Likert scale
5. Gender	X4	Dummy variables 1 = male, and 0 = female
6. Age	X5	Internet banking user age (year)
7. Education	X6	Dummy variables 1 =Bachelor degree or above, and 0 = otherwise
8. Income	X7	Dummy variables 1 = 15000 baht per month or above, and 0 = otherwise

The draft online questionnaire was sent to four experts, who considered its content validity and credibility and found it satisfactory. In addition, the questionnaire's reliability was tested using Cronbach's (1951) coefficient alpha, which gave the satisfactory result of 0.880. Table 1 indicates the basis on which the variables used in this study were measured.

There were eight variables used in this study: one dependent variable, three independent variables, and four control variables. The dependent variable was e-loyalty of internet banking users, while three independent variables were attitudes towards trust management features: of security, service quality, and marketing, and the control variables were demographics, namely gender, age, education level, and income.

Descriptive analysis was used to investigate the extent and level of trust management as well as e-loyalty of internet banking users in Southern Thailand, while multiple regression was used to examine an influence of trust management on e-loyalty. Finally, a correlation matrix was used to for multi co linearity between the eight variables used in this study. The equation was indicated below.

$$Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + b6X6 + b7X7 + error$$

Where:

Y = e-loyalty

$X1$ = Security

$X2$ = Service quality

$X3$ = Trust-based marketing (TBM)

$X4$ = Gender

$X5$ = Age

$X6$ = Education

$X7$ = Income

Findings and Discussions

Data from 365 (91.25% of the intended sample size of 400) internet banking users from southern Thailand was collected. Examination of the data indicates that the demographics of the responding users were rather skewed. Although gender was roughly evenly distributed:167 (45.8%) male cf. 198 (54.2%) female, 335 (91.8%) respondents described their education as Bachelors or above, while 301 (82.5%) respondents described their income as being 15,000 baht per month or above.

Descriptive analysis of attitudes towards components of trust management and extent of e-loyaltyfound that the strongest trust management influencer of users was service quality (Mean = 4.167, S.D. = 0.561) followed by security (Mean = 3.832, S.D. = 0.690), and marketing (Mean = 3.733, S.D. = 0.740). However, all were ranked in the High category. The average ranking of e-loyalty given bywas also ranked as High (3.960, 0.430).

Table 2: Descriptive Analysis of Trust Management and E-loyalty

Variables	Mean	S.D.	Max.	Min.	Rank
Trust management					
Security	3.832	.690	5	1	High
Service quality	4.167	.561	5	2	High
TBM	3.733	.740	5	1	High
e-loyalty	3.960	.430	5	3	High

A correlation matrix was used to test for multicollinearity between the eight variables used in this study, and is shown inTable 3. The low coefficients in the correlation matrix between the variables used in the study therefore indicated that multicollinearity was unlikely to be a problem in the multiple regressions. This was reinforced by the results of a fixed effects model for panel testing, which indicated that the maximum variance inflation factor(VIF) of the correlation matrix between the variables was 1.785, which indicates that there was no multicollinearity.

Examination of the correlation coefficients between the eight variablesindicates there were significant positive correlations(all at 0.01) between security, service quality, marketing, both with each other and e-loyalty, while there was a significant negative relationship(at 0.01) between user's age and e-loyalty. Incidentally, there were also significant positive correlations (both at 0.01) between age and income and education level and income, along with a significant negative correlation (at 0.05) between age and gender.

Table 3: Correlation matrix

Variable	Y	X1	X2	X3	X4	X5	X6	X7
Y	1							
X1	.363**	1						
X2	.385**	.601**	1					
X3	.266**	.477**	.520**	1				
X4	.044	-.015	-.040	.058	1			
X5	-.173**	.028	-.032	-.004	-.127*	1		
X6	.004	-.029	.024	.004	.086	-.069	1	
X7	.064	.087	.082	.029	-.019	.277**	.282**	1
Mean	3.960	3.832	4.167	3.733	1.540	34.890	.917	.824
S.D.	.430	.690	.561	.740	.499	9.068	.275	.380
VIF	-	1.678	1.785	1.470	1.034	1.132	1.126	1.216

** is significant at 0.01, and * is significant at 0.05

Table 4 shows the results of a multiple regressionanalysis on components of trust management on e-loyalty of internet banking users in Southern Thailand. This found that attitudes towards both security and service quality were positively correlated with e-loyalty of users (p <0.01 in both cases), while attitudes towards marketing had no correlation with e-loyalty (p >0.05). When demographic variables were examined, neither gender nor education of respondents was correlated with their e-loyalty (p > 0.05). Income of respondents was positively correlated with their e-loyalty (p < 0.05), while age of respondents was negatively correlated with their e-loyalty (p < 0.01).

In summary and returning to the hypotheses outlined in section2 literature review and hypotheses development, H1, H2, H5 and H7 were supported by this study, while H3, H4 and H6 were rejected by this study.

Table 4: Multiple Regressions

Variable	Beta	t	Significant
-Constant-	-	14.314	.000**
Security (X1)	.201	3.300	.001**
Service quality (X2)	.229	3.652	.000**
TBM (X3)	.046	.810	.419
Gender (X4)	.034	.708	.479
Age (X5)	-.195	-3.911	.000**
Education (X6)	.039	.773	.440
Income (X7)	.102	1.981	.046*
R Square		.214	
Adjust R Square		.199	
F value (sig.)		13.912**	
N		365	

** is significant at 0.01, and * is significant at 0.05

Conclusions and Suggestions for Future Study

This study attempted to determine if, among customers in southern Thailand, e-loyalty was influenced by the three components of trust management used by banks: security, quality of service and trust-based marketing. After a correlation test found no evidence for multicollinearity, multiple regression analysis was used to determine if correlations existed between the components of trust management and e-loyalty.

This study found a significant positive correlation between customers' attitudes to security and their e-loyalty, a finding consistent with that of Van Vuuren, Roberts-Lombard and Van Tonder (2012), Chen and Xie (2007), and Aydin and Ozer (2005). This should not be surprising, for as Althobaiti & Mayhew (2014) put it, every sane bank customer demands a secure environment to make a transaction.

The trust management component that obtained the most positive average response was customer service, and this study also found a significant positive correlation between customers' attitudes towards quality of service and their e-loyalty. This latter finding is similar to those made by with Chu, Lee and Chao (2012), Van Vuuren et al. (2012), and Yang et al. (2003). Although not as intuitive as the finding for security, the demonstration of the importance of this feature of trust management reinforces the belief that quality of service is the means which banks builds ties with their customers and keep customers returning to them (Pasha & Razashah, 2018).

A rather more surprising finding was the failure to detect any correlation between customers' attitudes towards trust-based marketing and their e-loyalty. This finding contradicts the generally strong average response from respondents towards trust-based marketing, as well as the findings of López-Miguens & Vázquez (2017) and Arcand et al. (2017), which both held that this component of trust management was vital to conveying a banks message to its customers. However, the nature and importance of this finding must be considered in light of how this study was conducted. This study considered the relationship of security, quality of service and marketing to customers' e-loyalty separately. Thus, this finding could be interpreted as indicating that

marketing, on its own, is not sufficient. Marketing must be conveying concrete and demons ratable efforts towards building and improving security and quality of service to be effective.

This study also examined the effects of demographic factors on e-loyalty. Gender and level of education were not found to be correlated with e-loyalty. Income level was found to be positively correlated with e-loyalty. This may reflect more affluent customersgreater ability to absorb loss leading them favor the convenience of e-commerce in spite of the potential risks reported by Pandey & Parmar (2019). Respondent's age was also found to be negatively correlated with e-loyalty. This is consistent with the generally poorer acceptance for technology by older customers reported by Tan & Leby Lau (2016) and Hur, Lee, and Choo (2017).

It must be considered, however, that the respondents in this survey were overwhelmingly relatively affluent (82.5%) and well-educated (91.8%). It is possible that these findings may not hold for poorer, less educated people of Thailand, who have less experience with new technologies and must be more financially conservative. Studies focusing on these demographics may prove revealing.

These findings would suggest that to improve e-loyalty among their customers, banks should, focus on quality of service and security of their transactions. Although marketing is important, it should focus on reporting actual developments in these areas, rather than flashy slogans and images. Furthermore, such marketing should focus on older customers and poorer customers, demographics this study has indicated may be reluctant to develop e-loyalty.

References

Althobaiti, M. M., & Mayhew, P. (2014). Security and usability of authenticating process of online banking: User experience study. 2014 International Carnahan Conference on Security Technology (ICCST).

Amin, M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. International Journal of Bank Marketing, 34(3), 280-306.

Arcand, M., Prom Tep, S., Brun, I., & Rajaobelina, L. (2017).Mobile banking service quality and customer relationships. International Journal of Bank Marketing, 35(7), 1068-1089.

Aydin, S., and Ozer, G. (2005). How switching costs affect subscriber loyalty in the Turkish mobile phone market: an exploratory study. Journal of Targeting, Measurement and Analysis for Marketing, 14(2), 141-155.

Chen, Y., and Xie, J. (2007). Cross-market network effect with asymmetric customer loyalty: implications for competitive advantage. Marketing Science, 26(1), 52-64.

Chu, P., Lee, G., and Chao, Y. (2012). Service quality, customer satisfaction, customer trust, and loyalty in an e-banking context.Social Behavior and Personality, 40(8), 1271-1284.

Eid, R. (2013). Managing Customer Trust, Satisfaction, and Loyalty through Information Communication Technologies. Hershey, PA: IGI Global.

Hur, H. J., Lee, H. K., & Choo, H. J. (2017). Understanding usage intention in innovative mobile app service: Comparison between millennial and mature consumers. Computers in Human Behavior, 73, 353-361.

Jauhari, V., & Dutta, K. (2017). Services Marketing: Text and Cases. New York, NY: Oxford University Press, USA.

Kingshott, R. P., Sharma, P., & Chung, H. F. (2018). The impact of relational versus technological resources on e-loyalty: A comparative study between local, national and foreign branded banks. Industrial Marketing Management, 72, 48-58.

Komb, F., Korau, M., Belás, J., &Korau, A. (2016). Electronic banking security andcustomer satisfaction in commercial banks. Journal of Security and Sustainability Issues, 5(3), 411-422.

Kundu, S., & Datta, S. K. (2015). Impact of trust on the relationship of e-service quality and customer satisfaction. EuroMed Journal of Business, 10(1), 21-46.

López-Miguens, M. J., & Vázquez, E. G. (2017). An integral model of e-loyalty from the consumer's perspective. Computers in Human Behavior, 72, 397-411.

Malik, Z., & Bouguettaya, A. (2009). Trust Management for Service-Oriented Environments. Berlin, Germany: Springer Science & Business Media.

Mauw, S., & Jensen, C. D. (2014). Security and Trust Management: 10th International Workshop, STM 2014, Wroclaw, Poland, September 10-11, 2014, Proceedings. Basingstoke, England: Springer.

Pandey, A., &Parmar, J. (2019). Factors Affecting Consumer's Online Shopping Buying Behavior. SSRN Electronic Journal.

Pasha, M. A., &Razashah, M. (2018). Impact of Service

Quality on Customer Satisfaction: An Empirical Study in Selected Public and Private Sector Banks. Researchers World:Journal of Arts, Science and Commerce, 9(1), 64.

Raab, G., Ajami, R. A., & Goddard, G. J. (2016). Customer Relationship Management: A Global Perspective. Boca Raton, FL: CRC Press.

Shahbazi, A. B. (2011). Attitudinal and Behavioral Factors for E-loyalty. London: Sage.

Tan, E., &Leby Lau, J. (2016). Behavioural intention to adopt mobile banking among the millennial generation. Young Consumers, 17(1), 18-31.

Van Vuuren, T., Roberts-Lombard, M., and Van Tonder, E. (2012).Customer satisfaction, trust and commitment as predictors of customer loyalty within an optometric practice environment.Southern African Business Review, 16(3), 81-96.

Yang, X., Ahmed, Z.U., Ghingold, M., Boom, G.S., Mei, T.S., and Hwa, L.L. (2003). Consumer preferences for commercial website design: an Asia-Pacific perspective. Journal of Consumer Marketing, 20, 10-27