Factors Affecting the Use of Online Banking among Generation X in Klang Valley

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Abstract

The rapid development of internet had led to many new possibilities and it has affected many sectors including banking sector. Thus, online banking is introduced to ease customers' transactions and eventually replacing physical banking outlet overtime. To sum up, this study is to identify the relationship between the four independent variables including security, perceived usefulness, perceived ease of use and trust and the dependent variable which is the use of online banking among generation X in Klang Valley. This research is conducted around Klang Valley and the total number of sample size selected is 106. The collected data is analysed for Pearson Correlation Coefficient in order to determine the relationship between the studied variables. The findings of this research showed that security, perceived usefulness, perceived ease of use and trust has a significant relationship towards the use of online banking among generation X with r value of 0.241, 0.757, 0.645 and 0.482 respectively.

Keywords: *Generation X, online banking, Klang Valley, correlation, security, trust, perceived usefulness, perceived ease*

1. Introduction

Online banking is also known as internet banking. It provides a platform for the bank customers to access their account through the internet to manage their bank account or to do online transactions. According to Pang [1], he stated that the revolution of the electronics in the bank sector in Malaysia will starts in 1970's. In June 2000, Central Bank of Malaysia, BNM granted the permission to locally owned commercial banks to offer online banking services. Maybank is known as the largest domestic bank in Malaysia. Maybank is also the first bank in Malaysia that offers online banking service at its own portal at www.maybank2u.com. But now most of the commercial banks in Malaysia now have stable their own web. Malaysian find out now days in the year after 2017, they have found out online banking become much more convenient, fast and easy [2].

Online banking services enabled a variety of services including banking enquiry functions, bill and credit card payment, funds transfer, balance inquiry and many more. Bank also provided customer service support through e-mails and telephone lines but it is only available from 06.00a.m. to 12.00a.m. midnight [3]. Malaysia internet user grew from 2.5 million at 2006 to 24.5 million at 2017, many banks invested on online banking services providing their customers another platform to access their account [4]. E-Business is implemented in business strategies by many businesses to better survive in the evolving market. According to Shih and Fang [5], internet banking is described as a new type of system that utilizes innovative resources of the internet and World Wide Web (WWW) allowing the customer to carry out financial activities in virtual space. The number of online banking users and the market is forecasted to grow significantly in the coming years. Some of the developed countries may have better online banking system but countries such as Vietnam are still struggling to develop their information technology (IT) infrastructure [6].

There are a few factors that appeared to influence consumers into using online banking for their monetary activities. The study done by other researchers found out that security (SE) is associated towards the use of online banking and should be concerned while increasing the banking penetration [7]. Serafin and Ricolfe[8] in their study stated that SE is the major influencing factor towards the use of online banking. According to the research by Harrison, Onyia, and Tagg[9], SE is also

included as a factor influencing the adoption of online banking. Perceived usefulness (PU) is to prove that in another way of changing or help from the technology there are more useful and much more convenience for the consumer [10]. Hence, the study of Maditinos et al. [7] claimed that (PU) is not the most important factor when it comes to the use of online banking. This is supported by Sharma and Govindaluri[11] who had also identified that PU is having the least influences towards the use of online banking. However, Santouridis and Kyritsi[12]and StanisławSzopiński [13] had proved that PU is having the most significant effect towards the behavioural intention to use for online banking. This showed that PU is found to be having a different level of effect towards the behavioural intention to use for online banking in different research.

Chong et al. [6], defined perceived ease of use (PEOU) is the degree to which a person believes that using particular system would be free from effort. The research of Chong, Ooi, Lin, and Tan [14] asserted that perceived ease of use PEOU contributed towards the use of online banking but it has a weak correlation. Nonetheless, Sikdar, Kumar, and Makkad[15] disagreed with this and outed that PEOU is a key factor contributing towards the adoption of online banking. Besides that, PEOU also influences the second key variable, the PU [16]. In the previous studies done by Amin [17], he found out that PEOU has a positive effect on PU. Online banking PEOU can let consumers feel to do online banking rather than go to the banks. The study of Loureiro, Kaufmann, and Rabino[18] found that trust (TR) is not a factor influencing the use of online banking. In later years, the research of Sikdar et al. [15] said otherwise since their research had identified TR as one of the major aspects in the usage of online banking.

The differences found in these previous researches showed that there is a room for this research to be conducted. Thus, security, perceived usefulness, perceived ease of use and trust is chosen as the four factors that are affecting the use of online banking in this study, which is conducted among generation X of Klang Valley.

2. Methodology

2.1 Research Design

In this research, there are 4 independent variables studied: SE, PU, PEOU and TR to discover whether these factors affect the use of online banking. Data needed in this research was primary and quantitative in the form of questionnaire. The questionnaire is distributed to generation X specifically in Klang Valley. The theoretical framework of this research is shown in Figure 1.
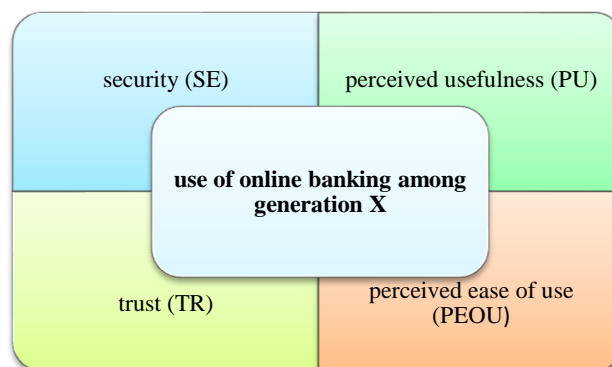

Figure 1: Theoretical framework of the study

2.2 Population and Sample

The questionnaire is distributed to generation X in Klang Valley [20]. The possession of a bank account is important as this research aims to study the use of online banking. The sample size of this research is set at 100. Purposive sampling used in this research is homogenous sampling where the selected population have a shared characteristic. The shared characteristic among the population is generation X and using online banking.

2.3 Data Collection

In this research, the data collected from the questionnaire was primary data. The questionnaire discussed about the factors and its affect towards the use of online banking. The questionnaire was a 5 points Likert-scale scaled from 1 Strongly Disagree, 2 Disagree, 3 Neutral, 4 Agree to 5 Strongly Agree [17]. The questionnaire focused on questions about dependent and independent variables of use of online banking.

To test the reliability and validity (Tan and Ooi [20]; Teo et al. [21]) of the questionnaire, a pilot testing was done before distributed to the respondents. The main purpose of conducting this pilot test is to ensure that the respondents answering the questionnaire really understand the questions [22]. To prevent inaccurate result, a question is included in the questionnaire stating that only people that falls under generation X (born in the year within 1961 to 1981) shall proceed with the questionnaire [23]. The questionnaire consists of 19 questions related to the factor affecting the use of online banking and it is distributed within Klang Valley.

2.4 Data Analysis

In this research, IBM Statistical Package for Social Science (SPSS) Version 21 and Microsoft Excel is used to analyse the data collected from the public using online questionnaire. While in hypothesis testing, Pearson's correlation analysis is applied as it is a strength measurement of association between two variables. The level of significance selected is at $P<0.05$. Hypotheses that had P value higher than 0.05 are rejected.

H_1: The relationship between SE and use of online banking in Klang Valley is significance.

H_2: The relationship between PU and use of online banking in Klang Valley is significance.

H_3: The relationship between PEOU and use of online banking in Klang Valley is significance.

H_4: The relationship between TR and use of online banking in Klang Valley is significance.

3. Results and Discussion

3.1 Pearson Correlation Coefficient Analysis

Table 1 presented the results of Pearson Correlation Coefficient Analysis for the variables.

In the table, the coefficient of SE to use of online banking is 0.241 with the significance level of 0.05. Referring to Table 1, correlation that falls between ± 0.21 to ± 0.40 has a weak relationship. This showed that SE is had a weak correlation in affecting the use of online banking among generation X in Klang Valley. Thus, H_1 is accepted.

The coefficient of PU to use of online banking is 0.757 with the significance level of 0.01. This correlation value is between ± 0.61 to ± 0.80, which indicated a strong relationship. This showed that PU is having a strong correlation in affecting the use of online banking among generation X in Klang Valley, hence H_2 is accepted.

As for the coefficient of PEOU to use of online banking, the obtained value was 0.645 with the significance level of 0.01. With reference to Table 1, this correlation has a strong relationship since the value falls between ± 0.61 to ± 0.80. This revealed that PU is having a strong correlation in affecting the use of online banking among generation X in Klang Valley. Thus, H_3 is accepted.

The coefficient of PEOU to use of online banking is 0.482 with the significance level of 0.01. This correlation value that falls between ± 0.41 to ± 0.60 is having a moderate relationship. This showed that PU have a moderate correlation in affecting the use of online banking among generation X in Klang Valley, H_4 is accepted.

Table 1: Results of Pearson Correlation Coefficient Analysis

	SE	PU	PEOU	TR	DV
SE Pearson Correlation Sig. (2-tailed) N	1 106	0.330** 0.001 106	0.425** 0.000 106	0.531** 0.000 106	0.241* 0.013 106
PU Pearson Correlation Sig. (2-tailed) N	0.330** 0.001 106	1 106	0.684** 0.000 106	0.477** 0.000 106	0.757** 0.000 106
PEOU Pearson Correlation Sig. (2-tailed) N	0.425** 0.000 106	0.684** 0.000 106	1 106	0.646** 0.000 106	0.645** 0.000 106
TR Pearson Correlation Sig. (2-tailed) N	0.531** 0.000 106	0.477** 0.000 106	0.646** 0.000 106	1 106	0.482** 0.000 106
DV Pearson Correlation Sig. (2-tailed) N	0.241* 0.013 106	0.757** 0.000 106	0.645** 0.000 106	0.482** 0.000 106	1 106

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

3.2 Overall Discussion

3.2.1 Security (SE)

The result of this research showed that SE is positively related to the use of online banking among generation X in Klang Valley with correlation of 0.241. The positive

relationship between SE and the use of online banking showed that generation X is concern with the security when they use online banking services. This imply that when the generation X perceived that the online banking is safe to use, the higher chance that they will use the online banking service.

According to Maditinos et al. [7], their studies found that SE is contributing towards the use of online banking. This indicated that the SE is an affecting people during the use of online banking. In relation to this study, SE is identified as the weakest correlation. In other words, SE is the least influencing towards the use of online banking. Serafin and Ricolfe[24] did a similar research with the findings that showedd SE with a correlation of 0.51 towards use of online banking which meant that the relationship between the two variables are moderately correlated. They also claimed that a quarter of users do not perform transaction online due to security reasons. They believe that by linking other aspects with security, it will be able to bring interesting synergies.

3.2.2 Perceived Usefulness (PU)

The result of this research proved that PU is positively related to the use of online banking among generation X in Klang Valley with correlation of 0.757. The relationship between PU and use of online banking is positive. Thus, PU is one of the factors that can directly affect the use of online banking among generation X in Klang Valley. This also implied that generation X will use online banking when they perceive that it is useful.

Maditinos et al. [7], also obtained result from their study that PU is had a positive relationship towards use of online banking. However, PU is not identified as the most contributing factor. The correlation of PU is 0.39 which is weak correlation when related to this study. Nevertheless, the finding of this study stated that PU is having correlation of 0.757 which is having a strong correlation towards the use of online banking. In this study, PU is identified as the most influencing factor among the others. Maditinos et al[7] also mentioned that PU should be utilized in the advertising to highlight the service range offered to influence the audience.

According to the research of Sharma and Govindaluri[11], they identified PU as the least contributing factor with correlation of 0.31 towards the intention to use. This indicated that PU is not the most concerned factor compared to the others. However, referring back to this study, the correlation of PU is 0.757, and is the most influencing factor among all.

3.2.3 Perceived Ease of Use (PEOU)

The result of this research showed that PEOU is positively related to the use of online banking among generation X in Klang Valley with correlation of 0.645. This relationship between PEOU and use of online banking is positive. Thus, PEOU can be identified as one contributing factor towards the use of online banking among generation X in Klang Valley. This suggested that generation X will have a higher chance of using online banking when they perceived that online banking is easy to be used.

According to Chong et al. [14], PEOU is not contributing towards the use of online banking. Instead, PEOU is indirectly affecting intention to use online banking through its effect on PU. The correlation of PEOU in their study is 0.04. Compared to this research, correlation of PEOU is 0.645 which is having a strong correlation. In this research, PEOU is the second most influencing factor towards the use of online banking.

In the research of Sikdar et al. [15], they found out that ease of use is the key contributing factor towards intention to use with 0.81 correlations. With a slight similarity to this research, the correlation of ease of use is 0.645, strongly correlated towards use of online banking but not as strong correlated as the findings of the research of Sikdar et al. [15].

3.2.4 Trust (TR)

The result of this research presented that TR is positively related to the use of online banking among generation X in Klang Valley with correlation of 0.482. The relationship between TR and use of online banking is positive. Thus, TR is identified as one of the contributing factors towards the use of online banking among generation X in Klang Valley. This denoted that generation X tends to use online banking when they trust the online banking system.

Work done by Chong et al. [14] had identified TR as part of the online banking adoption. Chong et al [14] also emphasized that the banks should make sure that the banking system are developed fully and personal information should be protected. The correlation of TR is found to be 0.243 and it is moderate correlation in the research.

Sikdar et al. [15]'s study had also reported TR as a contributing factor. However, the result of their research showed that TR is having a correlation of 0.686. Sikdar et al. [15] had also mentioned that response time of an online banking affect the level of TR. Not only that, they had also proposed website safety and data encryption should be focused in order to achieve a highly secure banking website.

4. Conclusion

Based on the study conducted on the four influential factors affecting the online banking usage of generation X in Klang Valley, it is found that all the four factors do

have a positive relationship in impacting the dependent variable. Nevertheless, only two factors (perceived usefulness and perceived ease of use) had a strong relationship while one had a moderate relationship (trust) and the other was a weak relationship (security). Among the two strong relationships, perceived usefulness had a even stronger correlation with a value of 0.757.

References

[1] Pang, J. Y. 1995. *Banking & Finance, Malaysia*. Shah Alam, Malaysia: Federal Publications Sdn Bhd.

[2] Many Find Online Banking Safer and Faster. (2017, April 12). *The Star Online*. Retrieved from https://www.thestar.com.my/news/nation/2017/04/12/many-find-online-banking-safer-and-faster/

[3] Suganthi, Guru, B., & Balachandran. 2015. Internet Banking Patronage: An Empirical Investigation of Malaysia. *Current State of Internet Banking in Malaysia*, 3.

[4] Povera, A. (Producer). 2018. Internet users in Malaysia up from 2.5mil in 2006 to 24.5mil in 2017. *New Straits Times*. Retrieved from https://www.nst.com.my/news/nation/2018/02/331284/internet-users-malaysia-25mil-2006-245mil-2017

[5] Shih, Y.-Y., & Fang, K. 2004. The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research Vol 14*, 213–223.

[6] Chong, J. L., Chong, A. Y. L., Ooi, K. B., & Lin, B. 2011. An empirical analysis of the adoption of m-learning in Malaysia. *International Journal of Mobile Communications*, *Vol. 9 No.1*, 1-18.

[7] Maditinos, D., Chatzoudes, D., &Sarigiannidis, L. 2013. An examination of the critical. *Journal of Systems and Information Vol.15 No.1*, 97-116.

[8] Serafin, J., &Ricolfe, C. 2013. Consumer perceptions of online banking in Spain using netnography: a positioning story. *International Journal of Bank Marketing, 33*(6).

[9] Harrison, T. S., Onyia, O. P., &Tagg, S. K. 2014. Towards a universal model of internet banking adoption: initial conceptualization. *International Journal of Bank Marketing, 32*(7), 647 - 687.

[10] Teo, A.C., Tan, G.W.H., Cheah, C.M., Ooi, K.B & Yew, K.T. 2012. Can the Demographic and Subjective Norms Influence the Adoption of Mobile Banking?', *International Journal of Mobile Communications, Vol. 10 No. 6*, 578-597

[11] Sharma, S. K., &Govindaluri, S. M. 2014. Internet banking adoption in India: Structural equation modeling approach. *Journal of Indian Business Research Vol. 6 Issue: 2*, 155-169.

[12] Santouridis, I., &Kyritsi, M. 2014. Investigating the Determinants of Internet Banking Adoption in Greece *Procedia Economics and Finance, 9*, 501 - 510.

[13] StanisławSzopiński, T. 2016. Factors affecting the adoption of online banking in Poland. 2.

[14] Chong, A. Y.-L., Ooi, K.-B., Lin, B., & Tan, B.-I. 2010. Online banking adoption: an empirical analysis. *Literature review*, 2-4.

[15] Sikdar, P., Kumar, A., & Makkad, M. 2015. Online banking adoption: A factor validation and satisfaction causation study in the context of Indian banking customers. *International Journal of Bank Marketing Vol. 33 Iss 6*, 760-785.

[16] Ooi, K. B., Sim, J. J., Yew, K. T., & Lin, B. 2011. Exploring factors influencing consumers' behavioral intention to adopt broadband in Malaysia. *Computers in Human Behavior*, Vol. *27No.3*, 1168-1178.

[17] Amin, H. 2007. Internet banking adoption among young intellectuals. *Journal of Internet Banking and*, 1-13.

[18] Loureiro, S. M. C., Kaufmann, H. R., &Rabino, S. 2013. Intentions to use and recommend to others An empirical study of online banking practices in Portugal and Austria. *Online Information Review Vol. 38 No. 2*, 186-208.

[19] Ooi, K. B., & Tan, G. W. H. 2016. Mobile technology acceptance model: An investigation using mobile users to explore smartphone credit card. *Expert Systems with Applications*, *Vol.59,* 33-46.

[20] Tan, G.W.H and Ooi, K.B. 2018, 'Gender And Age: Do They Really Moderate Mobile Tourism Shopping Behavior?', *Telematics and Informatics,* Vol. 35 No.6, 1617-1642

[21] Teo, A.C., Tan, G.W.H., Ooi, K.B, Hew, T.S and Yew, K.T. 2015 'The Effects of Convenience and Speed in M-Payment Usage', *Industrial Management and Data Systems*, Vol. 115 No. 2, 311-331

[22] Wong, C.H., Tan, G.W.H., Tan, B.I and Ooi, K.B. 2015. Mobile *Advertising: The Changing Landscape of the Advertising Industry', Telematics and Informatics, Vol*. 32 No.4, 720-734

[23] Kotler, P., & Armstrong, G. 2016. The Demographic Environment *Principle of Marketing* (pp. 100-101). Harlow, England: Pearson Education Limited.

[24] Serafin, J., &Ricolfe, C. 2013. Consumer perceptions of online banking in Spain using netnography: a positioning story. *International Journal of Bank Marketing, 33*(6).

[25] Akanmu, M.D., Hassan, M.G., Bahaudin, A.Y.B. (2020). A preliminary analysis modeling of the relationship between quality management

practices and sustainable performance. Quality Management Journal, 27 (1), pp. 37-61.