

CHAPTER 3: RESEARCH METHODOLOGY

3.1 RESEARCH FRAMEWORK

There are many factors influencing the adoption of online banking and it is important to take these factors into consideration when studying customer attitude and behavior towards online banking.

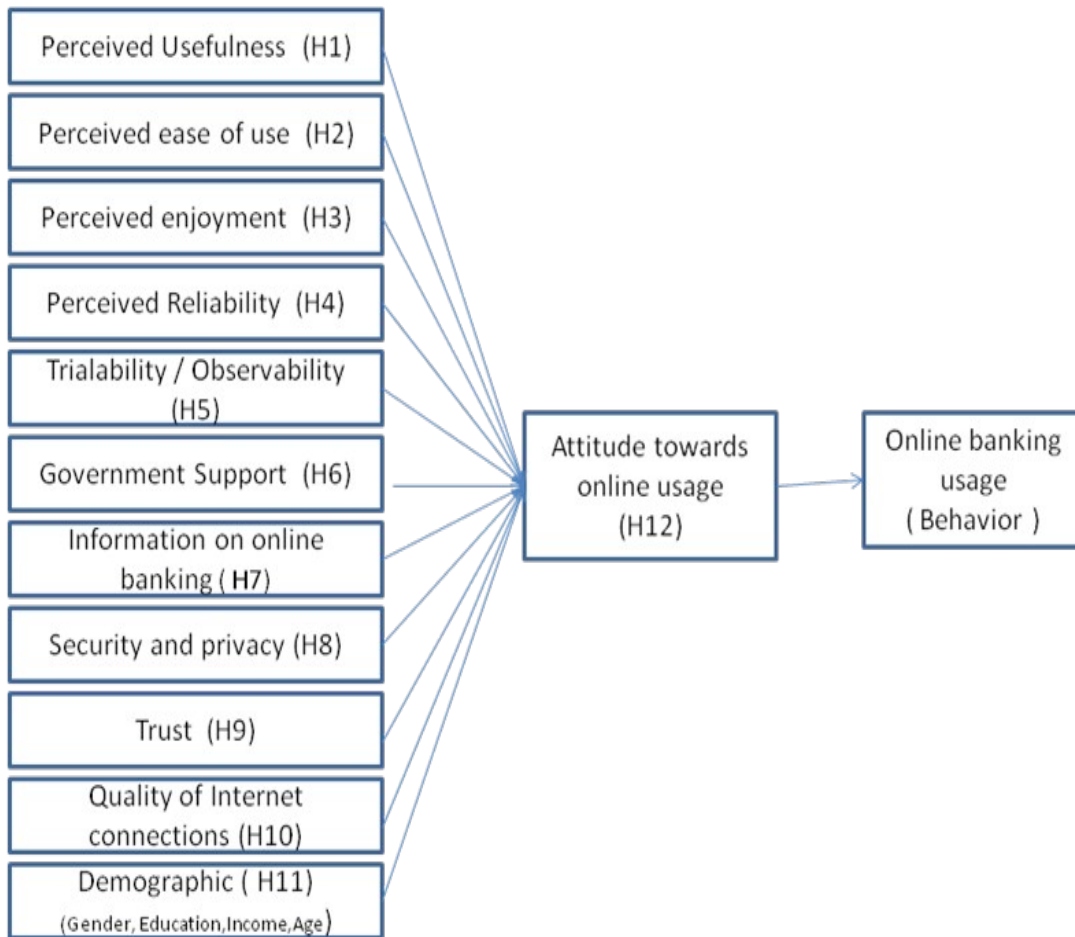


Figure 3.1: Research framework on decision factors for the adoption of online banking.

3.2 DEVELOPMENT OF HYPOTHESIS

3.2.1 Perceived usefulness (PU)

Based on the evaluation of technology adoption researches from 1992-2003 (Jeyaraj, 2006) found that perceived usefulness was showing a significant result in 26 out of 29 studies on technology adoptions. The study of online banking in

Finland, found that perceived usefulness is one of the most significant weight on the intention to use online banking among the consumers (Tero Pikkarainen, 2004). However (Gounaris, 2008) have compared various models in his studies of the factors that influence the internet banking adoption decision. Similar to Pikkarainen findings, perceived usefulness was found to be one of the important adoption factors for online banking implementation. Another web based survey on adoption of online banking among Turkish users done by (Celik, 2008) also support the previous findings that says perceived usefulness plays a significant role in determining Turkish users' intentions do adopt online banking. Therefore, based on the literatures, we hypothesize that:

H1: Perceived usefulness positively influence attitude towards online banking.

3.2.2 Perceived ease of use (PEOU)

In Vietnam, as mention by (Hoang, 2003) the ease of use in the online banking web site may influence their adoption decision of the Vietnamese due to their little experience in using the internet. Apart from that, Taiwanese also feel that Internet banking is easy to organize and offer understandable interaction between customers and the bank's web site. The finding also supports the fact that the

Internet banking systems offer benefits for Taiwanese in terms of improving banking transaction, comfort and very useful (Wang, 2003). Further, (Guriting, 2006) found that perceived ease of use had a significant positive effect of attitude and behavioral intention to use online banking in Malaysia- Borneo. Likewise bank, customers are likely to adopt online banking when it is easy to use. As different studies show various results in the influence of perceived ease of use, this study will include the variable and hypothesize that:

H2: Perceived ease of use positively influence attitude towards online banking.

3.2.3 Perceived Enjoyment

According to the finding done by (Teo, 1999), it highlights that perceived enjoyment correlates positively with frequency of Internet usage. Hence, there are other studies also have found a controversial findings on the role of enjoyment on acceptance. For instance, (Tero Pikkarainen, 2004) found that perceived enjoyment does not statistically significantly affect the use of Internet banking. According to (Igbaria M. L., 1995) enjoyment statistically does not give a

significant effect on the acceptance of data processing systems. Under these circumstances as different studies show various results in the influence of Perceived enjoyment affects the acceptance of online banking, this study will include the variable and hypothesize that

H3: Perceived Enjoyment positively influence attitude towards online banking.

3.2.4 Perceived Reliability

Poor online banking reliability often failed to result in customer's switching, which generally occurs in unreliable e-service situations. (Mary Loonam, 2008); (David, Age 26-35, Expert User). Therefore this study hypothesizes that:

H4: Perceived Reliability positively influence attitude towards online banking.

3.2.5 Triability and Observability

According to (Rogers, 1995) innovation only have software component, which have a relatively lower degree of observability. The feature of observability as the degree to which an innovation is visible to other potential users in a social system (Black, 2001). However, (Chan S., 2004) argued that, online banking is less observable unlike other IT innovations, because banking and finances are highly sensitive affair that requires individual's confidentiality. Also very few

people use online Banking services in front of others. Therefore this study hypothesizes that:

H5: Triability/ Observability positively influence attitude towards online banking.

3.2.6 Government Support

Government support is one of the important attendances in the adoption of online activities (Jaruwachirathanakul, 2005);(Tornatzky, 1982).Government can assist to support the online banking adoption by investing in the infrastructure. Government from Singapore, Japan and Malaysia are the good example of heavy investment in IT infrastructure (Chong ,2008). Therefore this study hypothesizes that:

H6: Government support positively influence attitude towards online banking.

3.2.7 Information on online banking

According to (Hanudin Amin, 2007) the public need information on online banking in order to enhance their understanding on how the particular system is functioning and on how the said system is beneficial for their financial transactions. Lack of information on online banking can hold back an individual capacity for effective action in using the system. Therefore this study hypothesizes that:

H7: Information on online banking positively influence attitude towards online banking.

3.2.8 Security

Security and privacy threat referred to a chance of the crossing of personal information to the third parties without the customers' awareness or consent (Sathye, 1999; Howcroft, 2002; Gerrard & Cunnigham, 2003; Zhao, 2008, Lee, 2009). The level of threat becomes high if there is no adequate security and confidentiality assured by the service providers particularly banks. Hence, lack of security and privacy becomes a barrier in adopting internet banking. Therefore this study hypothesizes that:

H8: Security and privacy positively influence attitude towards online banking.

3.2.9 Trust

Financial Institutions need to improve strategies that could develop the customer's trust in the underlying technology. Strategies may include development of security technology, embracing encryption and firewall technology and working closely with online security firms. These may reduce the perception of online banking as uncertain and unsafe. (Khalil Md Nor, 2007). Therefore this study hypothesizes that:

H9: Trust positively influence attitude towards online banking.

3.2.10 Quality of Internet connection

Major factor affecting the adoption rate of online banking is the quality of internet connection. High levels of electronic connectivity in developed economies such as the United States, Australia and the United Kingdom have assisted the countries to widely adopt online banking. The lack of development in electronic connectivity developing economies is a major limitation in adopting the online banking. (Stephen Li, Worthington, 2004) Due to the importance we propose the following hypothesis:

H10: Quality of the Internet connection positively influence attitude towards online banking.

3.2.11 Demographic characteristics

Previous studies found that internet usage, as a medium of online banking, associates with demographic characteristics such as gender, age, Income and level of education (Teo, 2001; Chang & Samuel, 2004).

H11: Consumer's demographic factors have significant impact on customer's attitude towards using online banking

H11a: Age has a significant impact on customer's attitude towards using online banking. Young customers are more likely to adopt Internet banking.

H11b: Income has a significant impact on customer's attitude towards using online banking.

H11C: Gender has a significant impact on customer's attitude towards using online banking. Males are more likely to adopt Internet banking.

H11d: Education has a positive impact on customer's attitude towards using online banking.

3.2.12 Attitude and behavior

The study by (Liao, 1999) the theory of planned behavior (Benham, 1996) were applied in the study of the adoption of virtual banking. Based on the theory behavior of an individual is determined by their intention to perform the behavior. The intention will be determined by three factors namely attitude, subjective norms and perceived behavioral. (Stephen Li, Worthington, 2004). Therefore we propose the following hypothesis

H12: Attitude towards online banking positively influences Online banking usage (Behavior).

3.3 SELECTION OF MEASURES

The questionnaire was consists of three (3) parts. First and second part consists of the asked constructs while third part consists of respondent characteristics also known as demographic factors. In the questionnaire, the respondents require to rate their level of agreement with statements using five-point scales ranging from "strongly disagree" (1) to "strongly agree" (5). Indeed, the questionnaire items employed in this study were adopted from prior studies. The following presents the used items:

Perceived usefulness, perceived ease of use and Security and Privacy with six items respectively used from (Tero Pikkarainen, 2004); perceived enjoyment with five items were used from (Tero Pikkarainen, 2004); Government support and Trust with four and five items respectively used from (Alain Yee-Loong Chong, 2010); Trialbility and Obervability with six items and perceived Reliability with 2 items has been used from (Rogers, 1995); Lastly, Behavior and attitude was used from (Sabah Abdullah Al-Somali). The reason of using the same set of questions are because to ensure the used items are better in reflecting the online banking acceptance in the area of Klang valley and Seremban area.

3.4 SAMPLING DESIGN

Convenience sampling was employed for this study. The same has been used to investigate the customers of banks in Klang Valley and Seremban area. The targeted sample size is 200 to provide an adequate level of confidence in the study as well as a high level of reliability in data analyzes. However 300 sets of questionnaires distributed during the survey work with the expectation that some of the targeted respondents might not respond or return the questionnaires to the researcher. True enough, only 212 questionnaires were successfully filled up and used for the purpose of the analysis. In order to produce great results, the respondents of this study are targeted from a mixture of those who are using online banking as well as non users. By the time the survey is conducted, the respondents were politely approached and ask for their permission on participating in the survey.

3.5 DATA COLLECTION PROCEDURE

Survey is the method used for collecting the data. The subjects are customers of the banks mainly from Klang Valley and Seremban. The response from Klang Valley and Seremban makes up 100% of total responses. The respondents are selected from a numbers of customers from banks mainly from Alliance Bank Berhad, Maybank Berhad, CIMB Berhad, Standard Chartered Bank Berhad and United Overseas Bank Malaysia. The Questionnaires were circulated physically, i.e printed, and face to face or drop off collected later and cyber i.e. e-mail. Respondents are allowed to take home the questionnaire and submit it upon completion within one week. This lead to approximately 50 e-mails and 250 printed questionnaires that are sent to potential respondents and overall, 250 respondents are collected, which represent the rate of 83%. Only 212

questionnaires are complete and were taken into consideration (70.6%). This number of sample collected is reasonably sufficient for the purpose of this study. The respondents were also informed of as to whom and when the completed questionnaires would be collected. Self administered questionnaire is chosen, as it is less expensive in terms of time needed and work force. The purpose of the survey is explained in the cover letter of the questionnaire.

3.6 DATA ANALYSIS TECHNIQUES

This study utilizes multiple regression and correlations analysis, is one of the program in SPSS 11.0. The reason of using multiple regression test is in order to investigate the relationship among independent variables with mediating variable as well as mediating variable towards dependent variable. It is a constructive statistical technique that can be used to analyze the associations between a set of independent variables and dependent variable (Hair, 2005). In this study, there are eleven independent variables, namely perceived usefulness, perceived ease of use, perceived enjoyment, security and privacy, trust, trialbility & observability, amount of information, internet connection, reliability, government support and demographic factors. Attitude towards using online banking is known as mediating variable and behavioral intentions to use online banking is known as

dependent variable. However the correlation analysis has been conducted to examine the relationship between the variables (Jahangir, 2008). As cited in (Alain, 2010) the correlation coefficient value (r) range from 0.10 to 0.29 is considered weak, from 0.30 to 0.49 is considered medium and from 0.50 to 1.0 is considered strong.

CHAPTER 4: RESEARCH RESULTS

4.1 INTRODUCTION

The research results are presented after conducting reliability test where Cronbach's Alpha that suggests internal consistency reliability for the scale with this sample is calculated. The strength of the relationship between the Variables was explored using Pearson correlation. The predictive ability of these variables, all the facets on adoption behavior was measured using multiple regressions. Lastly t-test and Anova were used to test the effect of some of the demographic profile collected on the variables.

4.2 DEMOGRAPHIC PROFILE