

Acceptance towards the Use of Internet Banking Services of Cooperative Bank

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ABSTRACT

The implementation of Internet banking becomes a necessity for every bank to ensure that they are able to compete in the global market. This paper investigates the factors influencing the acceptance of Internet banking services provided by the only Malaysian cooperative bank known to be Bank Rakyat. With the ease for use; security and privacy; and quality of Internet connection as independent variables, this paper examines how these factors influence the acceptance of Internet banking services. This study used the stratified random sampling technique. There are two groups of respondents which consist of customers from the Pasir Mas branch and employees from all branches of Bank Rakyat. Descriptive analysis was used to gauge the overall picture of factors influencing respondents' acceptance. Using a sample of 171 respondents, evidence showed that ease of use, security and privacy as well as quality of internet connection are the factors contributed towards acceptance. Logistic regression was applied to look further at the relationship between variables. Based on the findings, the respondents who had a good internet connection are about 6 times more likely to use internet banking services compared to those who had low internet connection. It is suggested that future study be supposed to investigate the criteria in attracting the employees and customers to adopt the Internet banking services. The study contributes to the literature on the internet banking services in domestic area

Keywords: Acceptance, Easy, Security, Privacy, Internet Connection, Internet, Banking

BACKGROUND OF STUDY

With the current rapid developments in information and network technology, banks are undergoing unprecedented and global changes. The traditional banking business has been significantly, and inevitably, impacted by the rapid technological development. If Bank Rakyat wish to enhance their competitive advantage in the financial industry, they should continuously upgrading their information technology system, particularly, their network technology.

It had been seen that the business world remarkably went through with a great revolution which similarly occurred in newly developed nation like Malaysia. As such, the Malaysian government decided to implement the Internet banking on 1st June 2000 and the first banker in Malaysia to implement was Maybank Berhad. As an initiative to compete with other banks and to increase the delivery channels through Information and Communication Technology (ICT) advancement, Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat), which is the only cooperative bank, launched the i-Rakyat Internet banking service on beginning of January 2007 (Bank Rakyat Annual Report, 2009). In 2008, more than 13,000 customers become the users of this services (Bank Rakyat Annual Report, 2008).

Nowadays, the advantages of Internet banking are obvious. The customers can access their personal and business account information while avoiding a trip to the bank. In addition, they can check their balance whenever they need to, even if the bank is closed. Not only that, they can pay the bills online as well, which saves both time and money on postage. Another advantage of Internet banking is the ability to easily compare services offered by different banks. The awareness and usefulness of internet banking among the user (SMEs operators) in Malaysia is relatively important (Norudin Mansor and Rohaya Abd Manap, 2006) and thus been accepted by the public.

Comparison between Europe and Brazil revealed that the growth rate of Internet Banking usage is very different because of many factors (Meyer, 2006; Hernandez and Mazzon, 2007). These differences raise concerns about the major determinants of consumer acceptance of internet banking service. Obviously any attempt for increasing the acceptance is very much related with the information technology capability which are suppose to electronically input, process, store, transmit, and receive data which are expected to enhance productivity, communication, and improved the quality of life. Thus, this paper attempts to identify the influencing factors (ease of use, security and privacy, quality of internet connection) toward the acceptance of i-Rakyat Internet banking services. Additionally, the paper proposed several suggestions towards increasing the acceptance of i-Rakyat Internet banking services especially in rural area.

PROBLEM STATEMENT

Bank Rakyat was established in 1954 and it is the largest Islamic cooperative bank in Malaysia. In 2009, the total assets amounting to RM50.6 billion (Bank Rakyat Annual Report, 2009). Despite of its steady growth momentum since the late 1990s, however, only after 53 years, Bank Rakyat stepped forward to launch i-Rakyat internet banking. From the financial analyst perspective this is considered quite late compared to rivals such as Maybank Bank and CIMB Bank. One of the fundamental issues bothering the implementation of Internet banking among

most financial institutions until today is about the acceptance of banking transaction among the users

The main problem towards the implementation of Internet banking by financial institution is about the customers' acceptance towards that Internet banking itself. The most crucial tip for online banking is to be very aware of the Internet banking security. Identity theft is a real and growing problem today. As such, customers need to be highly protective of their personal account information whenever doing transactions online. As reported by Robinson (2000), half of the people who have tried online banking services will not become active users. The main issue towards the Internet banking is about the level of the security of financial transaction over the Internet (Sathye, 1999). Most of the consumers do not trust that their transaction is safe if they make transaction through the Internet.

Thus, the major challenge of Internet banking is in terms of building users trustworthiness towards the security and privacy issues when the customers use the internet banking service. Nevertheless attempt should be made to understand the feeling of irritability, headaches, nightmares, resistance to learn new technology which distinguishes the preference of one group as to the other group.

RESEARCH OBJECTIVES

- i. To investigate the factors (ease of use, security and privacy, quality of internet connection) that plays important roles for the acceptance of Internet banking service.
- ii. To identify the differences between employees and customers towards the acceptance of Internet banking
- iii. To examine which of the identifiable variables can lead to a better acceptance of Internet banking service.
- iv. To give recommendations and suggestions to the related organizations on how to provide better acceptance of Internet banking service among customers and employees.

HYPOTHESES

- H1 There is a significant relationship between ease of use and acceptance of Internet banking service.
- H2 There is a significant relationship between security and privacy with acceptance of Internet banking service.
- H3 There is a significant relationship between quality of internet connection and acceptance of Internet banking service.
- H4 There is a significant difference between employees and customers towards the acceptance of Internet banking service.

LITERATURE REVIEW

ACCEPTANCE OF INTERNET BANKING SERVICES

Technology development particularly in the area of information technology is revolutionizing the way business is done. Nowadays, the Internet plays an important role in the financial and banking services. It is widely noted that the Internet banking is a form of self service technology (Dixit, 2010). Internet banking can also be consider as an Internet portal, through which customers can use different kinds of banking services including bill payment in making

investment. Furthermore, if the banks' web sites offered only information on their pages without the possibility to do any transaction that are not qualified as internet banking services (Pikkarainen et al, 2003;Norudin Mansor & Rohaya Abd. Manap, 2006). Thus by 2011 onwards, almost all banks will provide the Internet banking services (Bradley et al, 2003). The growth of the use of internet banking will change the structure and amount of investment in the growth of the banking system (Vainio, 2006).

Acceptance is adoption and continuing use of the product, service or idea. According to Rogers and Shoemaker (1971), consumers go through "a process of knowledge, persuasion, decision and confirmation" before they are ready to accept a product or service. Individuals who are skilled and always using the internet significantly affect the acceptance of Internet banking services. Users who are experienced in using computers and the Internet will influence them to use Internet banking services (Lassar et. al, 2005).

The acceptances of internet banking services can be investigated through identifying the reasons of the use of internet banking (Eriksson et. al, 2005). Shih and Fang (2003) agreed that the factors of behavior intention to use the Internet banking, which is the actual usage of banking transaction, attitude, subjective norms, perceived and relative advantages of the Internet banking, and normative influences. They also agreed with Wungwanit-Chakorn (2002) that compatibility and complexity of the Internet banking will influence the acceptance of the Internet banking usage. E-banking is regarded as an important delivery channel that offered one-stop services and information unit to gain competitive advantages in banking sector (Malek AL-Majadi and Nik Kamariah Nik Mat, 2011).

EASE OF USE

Changes in technology do affect the routine activities of professionals, managers, everyone in the organization (Gallivan, 2004) as well as others in the society. As mentioned by Davis (1989), there are two independent variables that contribute to the consumer acceptance towards the technology; which is perceived as ease of use and perceived usefulness. These variables will affect consumer behavior and intention to use the technology; which is the technology term related to this study is Internet banking. The ease of use and accessibility has positive impact towards Internet banking services (Poon, 2008). Ease of use is the factor that contributed to the acceptance of the Internet banking services among customers and as well as with other factors such as enjoyment, information on Internet banking and quality of the internet connection (Pikkarainen et al (2004); Wang et al (2003); Sathye (1999).

According to Verkatesh (2000), the perception of use is an important determinant of user's intention to use something that related to the Internet applications. Based on Eriksson et al (2005) "ease of use" is one of the main determinants of factor that contribute to the popularity of Internet banking usage. It may correlate with the efforts required to learn to use Internet banking can affect the customers' interest in new service provided by Internet banking. Upon reviewing ease of use as one of the determinants variable one should not neglect its relationship with technology anxiety. There were still people in the society that describe when anything related to internet it will further reflect the development of "technophobia" or "cyberphobia" (Rosen and Weil, 1995).

SECURITY AND PRIVACY

In term of Internet banking, privacy can be defined as the claim of individuals, groups, or institutions to determine when, and to what extent, information about them is communicated to others (Agronoff, 1991). Based on Sonja and Faullant (2008) consumers really understand the meaning and functionality of the security features. Therefore bank should play their roles in order to influence their customer's perception of online security. Meanwhile continuously improving their customer's knowledge regarding privacy and security through training and promotion strategies. According to Dixit (2010), the number of internet users increased dramatically, but they still do not trust with the e-commerce security. Despite of effort and assurance provided by the government but still those involved such as business operators were still skeptical about the use of internet as part of their banking transaction (Norudin Mansor and Ahmad Faisal Abidin, 2010).

Ganesan and Vivekanandan (2009) described the challenges in terms of security and trust become the main issue with using the public network to perform transactions. Therefore it is difficult to get the personel information from the users. Based on Poon (2008), privacy and security are key issues in discontent with the use of internet banking. Their study indicated that security, privacy, and ease of use are the factor in determining the acceptance of Internet banking services.

QUALITY OF INTERNET CONNECTION

The internet connection method is very important for speedy download of the information or image in bank website (Jayawardhena and Foley, 2000). The slow response and transaction delay would make the customers losing confident with the Internet banking services (Jun and Cai, 2001).

The internet connection becomes one of the factors that contribute to the acceptance of the Internet banking because if there is no proper internet connection, the Internet banking cannot be used (Pikkarainen, 2004; Sathye, 1999). This statement is supported by Poon (2008) that the quality of internet connection influences the usage of Internet banking. While attempting to boost the application of internet, the allocation of grant by the Malaysian government especially to the business operators eventhough found to be useful but the amount was far from adequate (Norudin Mansor and Ahmad Faisal Abidin, 2010). Thus serious attention need to be woeked out in order to build confident among agencies (Chen and Yen, 2004) as well as individuals to keep on using internet in their day to day transaction.

RESEARCH METHDOLOGY

THEORETICAL FRAMEWORK

The framework below is expected to operationalize the cross-sectional investigation focusing on three identifiable variables (ease of use, privacy and security, and quality of internet connection) that are expected to contribute towards the acceptance of Internet banking services that are made available in the industry.

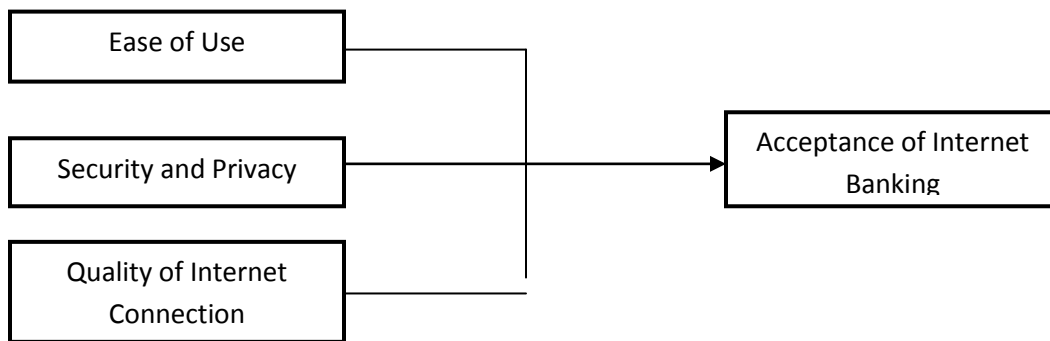


Figure 1: Theoretical Framework of the Study

SAMPLING PROCEDURE

Two groups of population were selected as the unit of analysis for the study. The first population group were those employees working with Bank Rakyat in the state of Kelantan which totaled to be 177 personnels as for the year 2010 The other population group were those customers that were using personal loan facilities with Bank Rakyat. On the average there were approximately 80 applicants that are expected to utilize the personal loan facilities per month.. This study only focused on employees and customers who use the i-Rakyat Internet banking services. By using the stratified random sampling technique 104 employees were selected, while purposive sampling was adopted in getting 67 customers as the sample for the study. Thus, the total number of sample was 171 respondents which were used for the analysis found to be reasonably adequate (Sekaran and Bougie, 2010).

DATA COLLECTION AND INSTRUMENT

The execution of data collection for this study which is quantitative relies on questionnaires as methodology for getting the primary data. Basically, the instrument contains various questions regarding the information of the dimensions that contribute to the acceptance of Internet banking services by Bank Rakyat. Except for section A where items were measured using nominal scale, all other sections were measured on a five-point Likert format which ranged from (1) “strongly disagree” to (5) “strongly agree”. The questionnaire was sub-divided into five sections as follows: 7 questions related to profiles of respondents, 7 questions capturing variable concerning the ease of use, 9 questions aimed at exploring the issue of security and privacy, and 5 questions measuring the quality of internet connection. These questionnaires were distributed to all employees of Bank Rakyat in Kelantan and to the customers at Bank Rakyat Pasir Mas Branch.

FINDING AND DATA ANALYSIS

RELIABILITY

According to Hair et al (2003), the Cronbach’s alpha higher than 0.6 is considered as acceptable. The computed Alpha values for the research variables indicated in Table 1.

Section	Cronbach's Alpha	No. of items
Ease of Use	.901	7
Security and Privacy	.703	4
Quality of Internet Connection	.787	5
Acceptance of Internet Banking	.815	7

Table 1: The Reliability Analysis

With regard to Table 1, the value of the Cronbach's Alpha for all of the variables are above 0.6 which reflects how well the items in were positively correlated to each other since the value was close to 1.

ANALYSIS OF RESPONDENT'S PROFILE

Out of 177 respondents surveyed, 57.9 % were male and 42.1 % female. In term of age classification, majority (48.5 %) were in the age range between 21 to 30 years old, followed by 43.9% within 31 to 40 years old, 5.8% for the age range between 41 to 50 years old, 1.2% within the age range below than 21 years old and only 0.6% for the age range in 51 years old and above. For education level, 65 out of 177 respondents had degree qualification, which is represented by 38%; 55 respondents had certificate or diploma which is represented 32.2%; then followed by 50 respondents (29.2%) with the qualification of PMR or SPM certificate (Secondary school qualification) and only 1 respondent (0.6%) had master degree. While for the income level, most of the respondents were having income between RM1,000 to RM1,999 and RM2,000 to RM2,999, 38.6 % for each category, then 31 respondents (18.1%) were within the income of between RM3,000 to RM3,999, As for those with the income between RM4,000 to RM4,999 and less than RM1,000 both of the category were equally represented by 1.8% (3 respondents) and only 2 respondents (1.2%) were having an income of RM5,000 above. Our respondents consist two group of people whereby 104 employees (60.8%) and 67 customers (38.2%) and all of them were the user of i-Rakyat Internet banking services.

Items	Freq	%	Items	Freq	%
Gender			Relationship with bank		
Male	99	57.9	Employee	104	60.8
Female	72	42.1	Customer	67	38.2
Age			Education		
< 21 years	2	1.2	PMR/SPM	50	29.2
21-30 years	83	48.5	Certificate/ Diploma	55	32.2
31-40 years	75	43.9	Degree	65	38.0
41-50 years	10	5.8	Master and above	1	0.6
51 and above	1	0.6			

Income (RM)			User of Internet banking		
< 1,000	3	1.8	Yes	171	100
1,000 – 1,999	66	38.6	No	0	0.00
2,000 – 2, 999	66	38.6			
3,000 – 3,999	31	18.1			
4,000 – 5,000	3	1.8			
> 5,000	2	1.2			

Currency rate: 1 US Dollar = RM 3.10

Table 2: Frequencies of Respondents Profile

Based on table 3 below, most of the respondents found to be readily acceptable toward the i-Rakyat internet banking services. Most of them feel that the internet banking is easy to use, secured and required high quality internet connection in order to use the services.

Characteristic	Codes/Values	No	%
Acceptance	0 = No	16	9.4
	1 = Yes	155	90.6
Ease of use	0 = No	11	6.4
	1 = Yes	160	93.6
Security & Privacy	0 = No	45	26.3
	1 = Yes	126	73.7
Quality of internet connection	0 = Low	17	9.9
	1 = High	154	90.1

Table 3: Frequencies of Variables

CHI-SQUARE TEST

Chi-square test is used to identify any significant association in the level acceptance with ease of use, security and privacy, and quality of internet connection.

Variables	Value	Pearson's R	Asym-Sig(2-sided)
Ease of use	4.449	0.161	0.035
Security & Privacy	5.106	0.173	0.024
Quality of internet connection	14.973	0.296	0.000

Table 4: Chi-Square Test between Independent variables and Acceptance

From Table 4, the result revealed that there were a significant association between acceptance of internet banking with all the 3 dependent variables but the strength of relationship were weak for all the variables. These show that all the factors have low impact towards the usage of internet banking.

LOGISTIC REGRESSION

Logistic regression analysis was performed further in order to determine the most influential factors towards the usage of internet banking.

Variable	B	S.E.	Wald	df	p-value	Odd Ratio
Ease of use	.523	.880	.353	1	.552	1.688
Security & Privacy	.750	.603	1.544	1	.214	2.117
Quality of internet connection	1.762	.644	7.478	1	.006	5.823
Constant	1.409	.418	11.363	1	.001	4.092

Table 5: Logistic Regression between Independent variables and Acceptance

According to table 5, only the variable quality of internet connection was significant (p -value = 0.006). This means that the most influential factor of acceptance is the quality of internet connection. By looking at the odd ratio, the value of quality of internet connection is 5.823. This implies that, the respondents who have high quality of internet connection were about 6 times more likely to use the internet banking services compared to those who have low quality internet connection.

DISCUSSION AND CONCLUSION

Even though most of literature stated that security and privacy is the main factor toward the acceptance of Internet banking services but in the state of Kelantan the quality of Internet connection become the major factor. The finding of this study clearly indicated that the quality of Internet connection had strong relationship compared to the ease of use and the security and privacy. Thus, Bank Rakyat should put more effort and pay attention on the services and facilities provided with regard to the acceptance of i-Rakyat Internet banking services.

Fixing adequate internet infrastructures demand efforts from all related parties. Obviously the government need to work in hand with the service providers through system support as well as collaboration that can improve quality in all aspects The high quality of Internet connection will encourage employees and customers to accept the Internet banking especially in rural area. Here, Bank Rakyat should collaborate with communication agencies such as Telekom, Celcom, Maxis and Digi in order to ensure that employees and customers do not have a problem while accessing the i-Rakyat Internet banking. Meanwhile Bank Rakyat should emphasize the ease of use that i-Rakyat Internet banking services can provide to the employees and customers, such as avoiding long queue and save cost in order to motivate them to use it.

In addition Bank Rakyat should design the website to accommodate the ease of use and security and privacy issues. Furthermore, the website design should be user friendly and appropriate to all ages especially to older employees and customers. The guideline should be included in the website for employees and customers' convenience. Usually those who have positive attitude will use internet banking on an ongoing basis. While a bad experience will

cause them to doubt the Internet banking services and become anxious to bear the risk. The recommendation to the Bank Rakyat is that they have to educate their employees and customers regarding uses of i-Rakyat Internet banking. Besides that, the employees and customers should be equipped with current knowledge on how to protect their personal and financial information while accessing the i-Rakyat Internet banking. With the understanding of the importance of customer relationship management it would be much easier for the employees and customers to share advancement in technology (Norudin Mansor et.al, 2011) as lacking of technological knowledge make them unable to accept the Internet banking services.

DIRECTION FOR FUTURE INVESTIGATION

This research which is considered small scale served as an initial step in exploring employees and customers' acceptance on i-Rakyat Internet banking services. However, a good definition of the population and more appropriate sampling technique such as stratification within the larger and more versatile target group should be applied. Additionally the inclusion of the unit of analysis from non-users should be involved in the study for the purpose of obtaining higher accuracy and better generalization of the entire communities within the nation.

The findings generated though to some extent provide evidence on issues governing the usefulness of internet banking that could provide favorable milestone in day to day transaction, but still need to be address in a more comprehensive perspective. Efforts should be taken by the invested parties to consider other factors to the acceptance of Internet banking services such as perceived usefulness, trust, self-efficacy, innovativeness, bank support, previous experience and familiarity. It is also useful for the banking industry as a whole and to Bank Rakyat in particular to sustain its competitiveness through exploring further the criteria in attracting the employees and customers to adopt the i-Rakyat Internet banking services.

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