

Internet Banking Adoption: Information Content Richness, Convenience and Computer Self-Efficacy

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Abstract— The purpose of this research study is to examine factors influencing the adoption of Internet Banking among staff in a public university in Malaysia. We investigated three factors that were believed to influence internet banking adoption. A research model was developed to show the relationship between the factors investigated. We used the quantitative method by distributing survey questionnaire to the participants. Ninety seven usable questionnaires were gathered for analysis. The findings indicated that there are significant relationships between the three factors towards internet banking adoption.

Keywords-component: Internet Banking (IB), Technology Acceptance Model (TAM), computer self-efficacy (CSE), information content richness (ICR), convenience (C)

I. INTRODUCTION

The Internet and the World Wide Web have revolutionized our daily lives and the way business is conducted. Since 1997, the Web has evolved into an economic avenue and as the new frontier for business. Internet banking (IB) was first introduced in the early 1980s, that has provided customers with an application software program that operates on personal computer (PC) which can be dialed into the bank via modem, telephone line and operate programs remotely on the consumer PC [1]. The introduction of the internet offers perfect opportunities through the global system and challenging the existing business structure and systems.

The Internet banking has developed and matured in many countries and has transformed from traditional banking practice. It has changed the way services are provided by the banking sectors to their customers. Banking has never been more important to our society than it is today [2]. The advancement of communication and computer technology and the availability of the internet have made it possible that one can do most banking transactions from a remote location even without

stepping into a physical financial structure. Although technology adoption by the banking industry in many countries around the world has been at a very high level, the process however has been slow in Malaysia [3]. Despite the advantages and various promotion of the Internet Banking, there are issues that need to be dealt with. These issues are important for both Malaysians and banking customers such as privacy and security issues [4].

The primary objective of this study is to identify the factors that would significantly influence the adoption of Internet banking staff in a public university in Malaysia, in the light of an extended technology acceptance model (TAM). This paper begins with an introduction and followed by the literature review of the related study of Internet Banking and complemented by a discussion on the methodology employed in this study. The next section will present the findings of this study. Finally, this paper ends with conclusion and recommendation.

II. LITERATURE REVIEW

Numerous studies have been conducted in the Internet Banking field from various countries and perspectives. Some reviews from previous researchers are: Factors that influence the adoption of Internet Banking and the adoption of Internet Banking from Australia [5]; Mauritius [6] Finland [7] Hong Kong [8] Taiwan [9] South Africa [10] Thailand [11]. In addition to the customers' perception in adopting the Internet Banking in the context of Malaysia comprises of [12]; [13]; [14] [15]; [16] and [4]. [13] conducted a study on customers' perception and intention to adopt Internet Banking and the moderator role of Computer Self Efficacy (CSE). He states that the CSE is important in Perceived usefulness and Perceived ease of use and intention connection. The result shows that for those who have higher CSE thus are more likely to adopt Internet Banking; the reason is they prefer to use the system and are more confident than those who have not adopted the Internet Banking.

A study [5] was conducted in Australia by investigating on why Australian consumers do adopt the Internet Banking (IB). The objective of the study was to identify the factors preventing the adoption of Internet Banking (IB) in Australia from six tested variables namely: security, lack of awareness about IB and its benefits, Ease of use, pricing/cost aspect, resistance to change, and no access to computer/Internet. The findings showed that the security concern and lack of awareness are the reasons for the non-adoption of IB by Australian customers.

III. RESEARCH FRAMEWORK

Based on the literature review, a research framework was developed that consists of three external variables as follows: computer self-efficacy, information content richness and convenience and three major dimensions of technology adoption [17] namely; perceived usefulness, perceived ease of use and intention to use.

Information Content Richness

Content of information as the relevance and completeness of the website content [18]. The content on online banking on the website is one of the factors influencing the online banking acceptance [19]. A study on the customer satisfaction towards the Internet Banking website in the context of South Africa [10] found that the information content and innovation are important factors that lead to the adopter's satisfaction towards e-banking. However in this study, the researcher used the word of Information Content Richness instead of content which is somehow more applicable when applying the TAM model. Content Richness in this study involves available information from online banking that allows the customer to find the information such services and products easily. Based on the above discussion, the following proposition is developed.

H1: Information Content Richness on online banking is significantly related to adoption of Internet Banking

Convenience

Convenience is defined as the transactions that can be conducted from anywhere and anytime as long as they have the access to a computer and connection to the Internet as bank would be open 24

hours and 7 days in a week [20]; [21] Meanwhile Lichtenstein & Williamson, [22] have concluded that based on their study on the consumer adoption of Internet Banking in Australian and Taiwan, the Convenience is the main factor that encourages the consumers to adopt the IB.

Customers feel free in making transaction with IB such anywhere, anytime, and most importantly it is not time consuming. Based on related study, thus, the researcher is believed that convenience will be one of factors that lead users to adopt Internet Banking. The hypothesis is:

H2: Convenience is significantly related to adoption of Internet Banking

Computer Self-Efficacy

The individual's belief about his or her ability to successfully use a computer or a technological service to accomplish a specific task, are known as their Computer Self-Efficacy [23]. Based on study of engineer's decision to accept e-learning by using the extended model of TAM as a theoretical framework [24], the study revealed that the CSE had positive effects on , perceived usefulness and perceived ease of use whereas it had negative effects on perceived credibility. The users who have higher CSE are more likely to have more positive usefulness and ease of use beliefs. In short, the results strongly support the extended TAM in predicting engineer's intention to use e-learning. CSE has been repeated citing in the IS literature as important factors in determining the individual's intention to use an IS [16]; [25]; [24].

With this concept as the basis, it is expected that this affects the acceptance of Internet banking, thus the hypothesis is;

H3: Computer Self-Efficiency is significantly related to adoption of Internet Banking

Perceived Usefulness, Perceived Ease of use, and Intention to Use

Previous studies had reported an adoption of Internet Banking by evaluating TAM with external variables that has different setting of Online Banking [25]; [26].

In Hong Kong, a study on studied adoption of Internet Banking [25] revealed that PU has a direct relationship with actual system to adopt IB. While Porter [27], Lee et al. [28] pointed out that the two major variables PU and PEOU were strongly supported in their studies regards attitude toward Internet usage and object oriented technology acceptance.

Davis and Venkatesh [29] have pointed out that

	Hypotheses	R-value	R-square	Result
H1	Information Content Richness on online banking has a positive effect on adoption of Internet Banking	** .68	.45	Supported
H2	Convenience has a positive effect on adoption of Internet Banking	** .61	.37	Supported
H3	Computer Self-Efficiency has a positive effect on adoption of Internet Banking	** .68	.46	Supported

TAM used for IT product assessment, is one of the most powerful models in explaining the IT acceptance and user. This is because TAM is a rational viewpoint that is clear from the two key constructs namely: Perceived usefulness and Perceived ease of use. Furthermore, TAM also has been very successfully based on the author's study on employing the model to examine the feasibility of early user acceptance of unfamiliar technologies.

III METHODOLOGY

This study aims to examine the factors influencing the adoption of Internet-Banking (IB) among staff in a Malaysian public university. Quantitative research methods were employed in the study. The study used self-administered survey questionnaire to capture relevant data for the study. A total number of 230 questionnaires were distributed to the staff of the public university; 97 usable questionnaires were collected and later used for data analysis. The questionnaire items used, in most cases were adapted from past studies and were modified to suit the context of the study. The survey items were measured using a six-point Likert-type scale from (1) "Strongly Disagree" (SD) to (6) Strongly Agree" (SA). The data were analysed using the Statistical Package for Social Science (SPSS) software.

IV. RESULTS AND ANALYSIS

Respondent profile

There were about equal number of male and female respondents; 49.5% male and 50.5% female. For the age level, respondents were grouped into five categories; 21 to 30 years old (17.5%), 31 to 40 years old (45.4%), 41 to 50 years old (28.9%), and 51 to 60 years old (8.2%) but none from the group of 61 years old and above. In terms of education level, those with doctoral degree was found to be the

majority respondents of the study that comprised of 60.8%, followed by master degree at 29.9% and degree at 9.3% consequently. In terms of nationality, the Malaysian respondents; 70.1% were Malaysian while the rest (29.9%) were non-Malaysian.

Hypotheses Testing

Table 1 shows the results of hypotheses testing conducted. All hypotheses are supported. The results implied that the three factors have significant relationship with the adoption of internet banking.

H1: Information Content Richness on online banking is significantly to adoption of Internet Banking

Table 1 shows that there is a significant relationship between the information content richness and adoption of Internet Banking with R-value of .68. About 45% of the variance for information content richness had explained the adoption of the Internet Banking. The findings implied that that respondents are satisfied with the banking services rendered online, and the rich information and content provided by the bank. Moreover, the respondents believed that the online services provided by the bank are much better than the traditional approach of banking transaction.

H2: Convenience is significantly related to adoption of Internet Banking.

Convenience refers to the availability of transactions at anywhere and anytime for conducting Internet Banking. As shown in Table 1, Convenience has R- value of .61 and R-squared value of .37, the results indicates there is a significant relationship between convenience and the adoption of Internet Banking. The results implied that the respondents enjoyed the convenience of Internet Banking. They can do the banking transactions at their homes, offices, and other places which can save their time. Thus convenience is one important reason for the adoption of Internet Banking among the respondents.

H3: Computer Self-Efficiency is significantly related to adoption of Internet Banking.

As presented in Table 1, the relationship between the computer self-efficacy and adoption of Internet Banking is significant with R-value of .68 and R-squared value of 0.46. In this perspective, with the computer usage skills that they have, the

Table 1: Hypothesis Testing

respondents are more likely felt comfortable and confident in using with the bank system. Furthermore, considering the fact that all the respondents were from an educated background and they are also mostly well versed in using the computer.

V. CONCLUSION

The results of the study have contributed new knowledge on customers' perception towards the Internet Banking. The practical implications are also beneficial to managers, developers, and any enterprises that are related to the Internet Banking sectors. Three hypotheses were formulated for the study. This study makes significant contributions to knowledge in the perception of factors influencing the adoption Internet banking among the staff in a public university in Malaysia. Furthermore, it also provides an insight into the customers' needs and wants which may be essential for the managers and bankers in order to provide better services to customers. In the light of these findings, some recommendations will be made which may be useful for bankers and other related authorities.

Future studies may look at other important factors, such as security and trust that could influence internet banking adoption. Other than that research to examine factors for the non-adoption of Internet Banking are equally important. In today's business, no one can refuse that Internet Banking as a part of people's life. In fact, some people do have a positive thought while others have negative perception on the Internet Banking.

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