

## DETERMINANTS FOR ADOPTION OF E-BANKING AMONG BANK'S CUSTOMERS

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**Abstract:** *The use of internet has been advanced commercially in most business activities including in financial services industry. This internet technology has changed the way of banks deliver their services towards the customer and the behaviours of customer towards adopting their banking needs. E-banking has increasingly become a preferred distribution channel and one of the most popular banking services adopted by customers. The general objective of this study is to discuss the determinants for adoption of e-banking among customers. Therefore, this study provide the conceptual framework of perceived ease of use, perceived usefulness, demographic characteristics and internet experience which affect the adoption of e-banking. These four determinants are found to be significant in affecting the adoption of e-banking among bank's customers.*

**Keywords:** E-banking, perceived ease of use, perceived usefulness, demographic characteristics, and internet experience

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### Introduction

The use of internet has been advanced commercially in most business activities including in financial services industry. This internet technology has changed the way of banks deliver their services towards the customer and the behaviours of customer towards adopting

their banking needs. Electronic banking (e-banking) has increasingly become a preferred distribution channel and one of the most popular banking services adopted by customers.

E-banking is a framework that empowers banks' clients worldwide to have access to their records and general data scheme on banks' items at any time they preferred through their own laptop or other intelligent gadget. The development of e-banking act as a banking channel which grants the customers to carry out all of their banking services, such as making online bills payment, checking balance inquiries and transferring money into a different account without bank branch visit.

In addition, most banks and financial institutions are robustly develops new e-banking products and services for the customers throughout the world. E-banking is the use of technology that facilitate the banks' customers to deal with the bank through various intermediaries channels such as internet, wireless devices, and Automated Teller Machines (ATM). According to Pang (1995), the e-banking was started in Malaysia in year 1970 and ATM was being the first electronic innovation that has been used by the Malaysian banks in 1981. These e-banking innovations are not only saving time and money but it is also providing the convenience and instant accessibility to the customers (Antonia, Manual & Gilbert, 2016). Perceived ease of use, demographic characteristics and internet experience are fundamentally becomes the factors that influence customers in adopting e-banking.

Essentially, e-banking turns out to be much more beneficial for banks instead of towards the customers (Adams, Bashiru, & Abdulai, 2016). However, customers' acceptance and confidence in the system become a major factor in the success of e-banking. There is a limitation of understanding the advantages of using e-banking among customers. Hence, the main concern of this study is to examine the factors influencing customer to adopt e-banking. Although e-banking give more benefits to the customer, but there are still a few number of customers who refuse or hesitant in adopting e-banking services. Thus, by understanding it thoroughly, efficiency of e-banking would be valuable for the bank to develop new strategies that will allow them in leveraging their competitive advantage.

According to Zheng (2010), by using technology in banking it can replace the traditional way. Although, e-banking helps customers in leading quick and appropriate financial transaction activities, but there is still has a limitation in the understanding of factors that influencing customers to adopt e-banking. There are several factors, likes demographic characteristics, internet experience, ease to use, and customers' confident on e-banking context which directly influences the adoption of e-banking (Jayawardhena & Foley, 2000).

However, the main problem in the implementation of e-banking by financial institution is the customers' acceptance towards that e-banking itself. According to Al-Sukkar and Hasan (2004), although customers perceived the easiness of the internet, but they do not change this state of minds towards the application of e-banking. Some of banks' customers are unwilling to use online banking because they do not like the technology at all and fears if the computer can garble their account (Zheng, 2010). Other than that, some customers' dissatisfactions are stems from the fact that they are not aware and knowledgeable about the full range of e-banking services provided by the banks. As based on Rogers and Shoemaker (1971), acceptance or rejection of an innovation starts when the customers know about the product after they have been experience or progression of process in knowledge, conviction, choice and affirmation. A previous study in the United Kingdom finds that customers will usually search for financial products and banks that are able to offer them with the best value for the money being invested (Daniel, 1999).

Then, according to Nath, Schrick, and Parzinger (2001) and Kannabiran and Narayan (2005), banks and other businesses alike are turning to Information Technology (IT) to improve their business efficiency, service quality and attract new customers. The evolution of banking

technology has been driven by changes in the distribution channels as evidenced by automated teller machine (ATM), Phone-banking, Telebanking, PC-banking and most recently e-banking (Chang, 2003 & Gallup Consulting, 2008).

Therefore, successful adoption of information system is determined by the acceptance of a new information system. The study on why customers decide to use or not to use an information system is vital in order to further improve the effectiveness and efficiency of system delivery by the developers and providers. Thus, technology acceptance by the customers can be modelled by applying information system technology which is Technology Acceptance Model (TAM) (Al-shbiel & Ahmad, 2016). In addition, there are two significant behavioural beliefs hypothesized by TAM which determine the customers' acceptance on e-banking; perceived usefulness and perceived ease of use (Davis, 1989).

Nevertheless, these two behavioural belief alone are inadequate to predict the customers' acceptance on e-banking. Hence, the general objective of this study is to consider additional determinants on customers' adoption of e-banking.

## **Literature Review**

### **Adoption of E-banking**

According to Aliyu, Younus and Tasmin (2012), e-banking is the provision of banking services through internet technology to the customers. E-banking also can be defined as an internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments.

Through e-banking, the customers will be able to transfer from one account to the other, can make cash withdrawals and pay the utility bills by using the personal computer (PC) or mobile phone. This service includes the system which enables the customers of the financial institution, individuals or businesses to obtain information on financial products and services and also through a public or private network, in which enables them to access business accounts transaction (Al-Ajam & Nor, 2013).

In addition, the customers also can pay bills online by using the bill payment service and make transfers between the accounts rather than just check their account balances and transaction history. Moreover, this service are backed with relatively high of security, that certainly will increase the confidence of the customers to use it. The e-banking also provides convenience services to the customers in term of geography, time saving and selection of banks (Zheng, 2010; Adams et al., 2016). Therefore, through e-banking, the customers can access their accounts 24 hours per day and seven days a week.

Therefore, it is hypothesized that adoption of e-banking is significantly higher among banks' customers.

H1: Adoption of e-banking is significantly higher among banks' customers.

### **Perceived Ease of Use**

Davis (1985) defined perceived ease of use as "the degree to which an individual believes that using a particular system would be free of physical and mental efforts". Previous study identifies the adoption of innovative services from the customer's perspective, the study found that ease of use is one of the important characteristics in adoption of e-banking by the customers. Thus, the study emphasizes on the perceived ease of use as significant factor in influencing and increasing the rate of e-banking adoption (Aliyu et al., 2012)(Alwan & Al-Zubi, 2016).

In addition, the effortless to use a particular system by an individual is referred to as the perceived ease of use. The user's perception on perceived ease of use is the level of easiness to

use the system. Moreover, the perceived ease of use had positive direct effect on user acceptance of information system (Eze et al., 2011). In line with this, Jahangir and Begum (2008) also found that the ease of use is one of the significant factors in influencing the adaptation of e-banking by the customers of private commercial banks in Bangladesh.

Other than that, the customers are more likely to accept the e-banking system because the application of e-banking in banking sector was perceived to be easier to use by customers. This is because the usage of e-banking system was also influenced by the factor of perceived ease of use. Moreover, current trend shows that customers are more likely to consider and prefer to use the customer-friendly technology (Hassan, Mansour, Eljelly, & Abdullah, 2016) Al-shbiel & Ahmad, 2016).

Therefore, it is hypothesized that perceived ease of use would have a significant positive influence on the user adoption of electronic banking.

H2: Perceived ease of use will have a significant positive effect on consumer's adoption attitudes toward electronic banking services.

### **Perceived Usefulness**

Perceived usefulness is defined as the improvement in job performance by using particular system is referred to as perceived usefulness (Davis, 1989). This perceived usefulness is believed to have an impact on the internet usage (Amin, 2007; Hassan et al., 2016).

Previous study found that perceived usefulness is positively significant in influencing the behavioural intention of the customers to adopt e-banking in their daily activities (Wang et al., 2003; Al-smadi, 2012; Al-shbiel & Ahmad, 2016).

Perceived usefulness of e-banking is the strong positive determinants of customers' adoption towards e-banking services seem it provides many benefits to the customers. Among examples are ATM would benefits customers in terms of reducing their waiting time for counter service. The use of technology in improving the job performance such as internet banking which can be very useful to the customers with very limited time (Hamid et al., 2016).

Therefore, it is hypothesized that perceived usefulness would have a significant positive influence on the user adoption of electronic banking.

H3: Perceived usefulness will have a significant positive effect on consumer's adoption attitudes toward electronic banking services.

### **Demographic Characteristics**

The popular ways to observe the relationship between the consumption of certain products and certain demographic factors is by using the demographic factors. Age, sex, income, occupation and education can be categorized as the demographic characteristics. The studies to profile the internet customers' demographic characteristics have been conducted and it is suggested that from the results of these studies, the innovators who belong to the high income category are normally initial users of the internet (Zheng, 2010).

In various studies, it is strongly supported that adoption and continued use of e-banking services was affected from the demographic variables. The gender variable have investigated by several studies and found that there is a relationship between gender and computer use ability. Men are expected to be the prevailing when using e-banking and mostly influenced by the advantages of e-banking. The needs of the growing number of female internet users are targeted in some commercial websites that are intended to be women-centric (Talafha & Abushanab, 2015).

The people that have an important effect on subsequent adoption of further new technology and more likely to use e-banking is the mid-aged people than younger or older customers. Not only that, the less convenient people when using technology is older people

(Talafha & Abu-shanab, 2015). Other study argued that the white-collar workers have higher probability of using e-banking (Hojjati, Monavvarian, & Roozbahani, 2015).

Moreover, emphasize of the internet and customer attitude towards e-banking adoption have been associated with the role of education. The good information processing skills which better facilitate internet use and competence for computers will be possessed by the people with higher educational level. Previous study found that the adoption of e-banking is more on educated customers rather than the less educated ones (Talafha & Abu-Shanab, 2015).

Therefore, it is hypothesized that demographic characteristics would have a significant positive influence on the user adoption of electronic banking.

H4: Demographic characteristics will have a significant positive effect on consumer's adoption attitudes toward electronic banking services.

### **Internet Experience**

According to Zheng (2010), the adoption of computer and technology in general is influenced by the prior web experience. According to Hong et al., (2013), customer experience in the internet was found to affect the adoption of e-banking. The customers will more likely to adopt the new internet technologies if they have more experienced in internet. Other than that, the customers who are more experienced at using the internet is higher than the customers who does not have much exposure to the internet.

Zheng, (2010) also identifies that, the attitude and behaviour towards online banking is positively affected from prior computer experience, prior technology experience, and prior personal banking experience. Thus, if the customers have more experiences internet, it is easy and flexible to use and also will save the customers' time because the internet is one of the quick services.

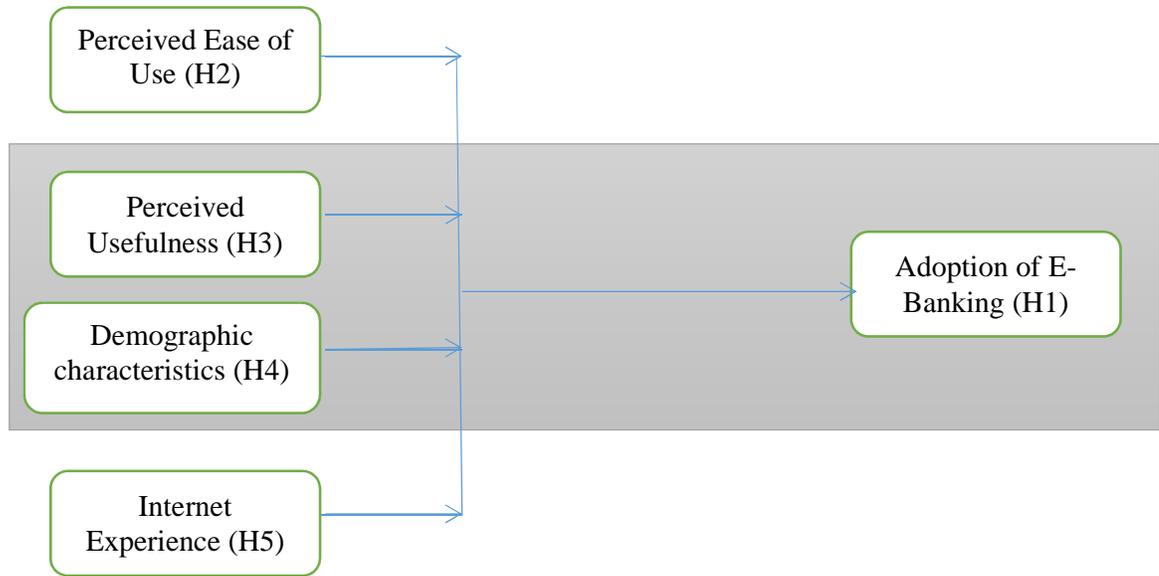
Furthermore, e-banking that applied in banking institution was using an advance technology in e-banking compared to the past banking technologies. So, due to this the e-banking is one of the system and technology which heavily rely on computer networks. The development and innovation of technology for new generation was also influence the customer's willingness in adopting e-banking, and this is also expected to give positive relationship between technology and customer willingness for adoption of e-banking.

Therefore, it is hypothesized that internet experiences would have a significant positive influence on the user adoption of electronic banking.

H5: Internet experiences will have a significant positive effect on consumer's adoption attitudes toward electronic banking services.

### **Conceptual Framework**

The conceptual framework of this paper is based on the extended TAM as shown in figure 1 below. The extended TAM includes the external variables of internet experience and demographic characteristics.



**Figure 1: Conceptual Framework**

### **Variables Measurement**

The questionnaire was used to collect the data. The method was selected because it is convenient, simple and faster. A set of questions was designed for obtaining the necessary information's from the respondents.

Questionnaire is a structured method for collecting data that contain a series of questions in terms of written or verbal. A set of questionnaire will be distributed to the respondents. There were 384 sets of questionnaire will be distributed to the respondents in order to obtain the information. In this research, the questionnaire was created based on the past research that relates with the researchers' topic which will be adopted and modified.

The questionnaires were designed in four sections ranging from section A to section D. In section A, the respondents are required to response the questions that relates on general banking information, in which whether the customer are adopting e-banking or not. Under section B and C, the respondents are requested to provide their information regarding their attitude towards adoption of e-banking services. It was designed to collect data on factors that influencing the consumer's decisions in adopting or not to adopt the e-banking. In this section, either section B or C is answered based on the respondent's decision towards adoption of e-banking services.

In section D, the questionnaire is related on demographics that were designed in order to get the personal information of the respondents. In this section, nominal scale question is used for the question such as gender, age, marital status and education level.

For section B and C, the researcher used interval scale questions. The interval scale questions are commonly used rating scale that required the respondents to indicate a degree of agreement or disagreement with each of a series of statements. In this section we use scale item that have 5 categories, ranging from point 1 to 5 which answers represents 1= strongly disagree, 2= agree, 3= neutral, 4= agree and 5= strongly agree.

### **Conclusion**

The e-banking become the most acceptable method in disseminating of information and other exchanges in today's world by the banks. There are wide ranges of services offered by e-

banking such as automatic teller machine (ATM) services and direct deposit to automatic bill payment (ABP), electronic transfer of funds (EFT), and computer banking (PC banking), which signals its significant role in banking industry. Therefore, the general objective of this study is to discuss the determinants for adoption of e-banking among bank customers. This is very important to examine these determinants due to the dumping of e-banking services offered by the financial institution to their customers in total. The adoption of these services by the bank customers will depend on their preferences which could be determined by their impression on the benefits provided by these e-banking services. Hence, this study provides the conceptual framework of perceived ease of use, perceived usefulness, demographic characteristics and internet experience which is believed to have an impact on the adoption of e-banking. These four determinants are found to be significant in affecting the adoption of e-banking among bank's customers which is in line with the theoretical predictions and thus the underlying model could be validated.

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