

EVALUATION OF YOUNG USER INTENTION TO ACCEPTANCE OF  
TECHNOLOGY BETWEEN IT STUDENTS AND NON-IT STUDENTS IN  
INTERNET BANKING SYSTEM

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A project report submitted in partial fulfillment of the  
requirements for the award from the degree of  
Master of Management (Technology)

Faculty of Management  
Universiti Teknologi Malaysia

Jun 2014

To my beloved family and specially my dears father and mother  
Thanks for your immense love, your precious prayers, supports and all that you have  
done to me. May the blessing of God, shower upon you.

## **ACKNOWLEDGEMENT**

I would like to take this opportunity to express my gratitude to everyone who has assisted me to make this project a success.

First of all I would like to thank my supervisor **PROF. MADYA MOHD SHOKI BIN MD ARIFF** for his guidance and assistance throughout the project. Without him, I would not be able to complete my project in time.

And I would like to express my appreciation to those who were involved directly or indirectly supporting me in the completion of this project. I really owe them where my words alone are not worth what they have done for me.

## **ABSTRACT**

Nowadays it seems very important for all of the students to have sufficient knowledge regarding the technology and also its acceptance among them. Specifically their knowledge about Internet banking system and its acceptance level has been paid attention among the scholars in the management studies. During the current research, the researcher attempted to examine determinant factors of potential young users' acceptance of Internet banking system, effect of CSE on PE, PU, PC and trust in technology acceptance model on Behavior Intention, effect of potential users' CSE on the students' intention for using internet banking through PU, PE, PC and also elements of trust in TAM, and finally investigating the difference of internet banking of BI to use IBS between ICT and non-ICT students. Researcher used several statically procedures by using SPSS software to analyze the obtained data, some factors has been identified as the crucial factors of internet banking. Furthermore CSE had positive correlation with PU, PC and BI. On the other hand, PU had positive relationship with BI and PCT had positive relationship with BI. Results of multiple regression shows that CSE had positive relationship with PU, PE and PCT. Additionally BI had positive relationship with PE, PU and PCT. Finally independent sample t-test showed that there is a significant difference between IT and non-IT students regarding their ideas about internet banking and IT students had more favorable attitudes. At the end of the study some recommendations for bank customers and also bank managers have been proposed.

## ABSTRAK

Mempunyai pengetahuan yang mencukupi mengenai teknologi dan juga penerimaan dikalangan para pelajar seolah-olah sangat penting pada masa ini. Khususnya pengetahuan mereka mengenai sistem perbankan Internet dan tahap penerimaan telah diberi perhatian di kalangan para cendekiawan dalam kajian pengurusan. Sepanjang penyelidikan semasa, penyelidik cuba untuk mengkaji faktor-faktor penentu potensi pengguna muda penerimaan sistem perbankan Internet, kesan CSE terhadap PE, PU, PC dan kepercayaan dalam model penerimaan teknologi terhadap Niat Kelakuan, kesan pengguna yang berpotensi 'CSE terhadap niat pelajar untuk menggunakan perbankan internet melalui PU, PE, PC dan juga unsur-unsur amanah dalam TAM, dan akhir sekali menyiasat perbezaan diantara perbankan internet BI dan IBS di antara pelajar ICT dan pelajar bukan ICT. Penyelidik menggunakan beberapa prosedur statistik dengan menggunakan perisian SPSS untuk menganalisis data yang diperolehi, beberapa faktor telah dikenal pasti sebagai faktor penting dalam perbankan internet. Tambahan pula CSE mempunyai hubungan yang positif dengan PU, PC dan BI. Sebaliknya, PU mempunyai hubungan positif dengan BI dan PCT mempunyai hubungan positif dengan BI. Keputusan regresi menunjukkan bahawa CSE mempunyai hubungan positif dengan PU, PE dan PCT. Selain itu, BI mempunyai hubungan positif dengan PE, PU dan PCT. Akhir sekali, sample ujian-t tidak bergantung menunjukkan terdapat perbezaan yang signifikan di antara IT dan bukan IT pelajar mengenai idea-idea mereka tentang perbankan internet dan pelajar IT mempunyai sikap yang lebih menggalakkan. Pada akhir kajian ini beberapa cadangan untuk pelanggan bank dan juga pengurus bank telah dicadangkan.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

The explosion of the Internet usage and the huge funding initiatives in electronic banking has drawn the attention of researchers towards Internet Banking. Compared to before, the conventional focus of Internet Banking has shifted from technological development to user-focused research. Millions of dollars have been spent on building Internet Banking systems however, reports have shown that the potential users may not be used the systems in spite of their availability (Amin, 2007). This is to point out the needs of a research which is to identify the factors that determine the users' acceptance towards Internet Banking.

According to the Technology Acceptance Model (TAM), it is perceived that the ease of use and perceived usefulness constructs are believed to be the fundamentals in determining the acceptance of Internet Banking with the usage of various IT (Information Technology) ((Venkatesh & Davis, 1996). By referring the Technology Acceptance Model (TAM) as a theoretical framework which introduces "Perceived Credibility and Trust" as a new factor that reflects the user's security and privacy concerns as the factor that users' acceptance towards Internet Banking. This



research also examines the effect of computer self-efficacy on the intention to use internet banking. Other than that, this research demonstrates the significant effect of computer self-efficacy on behavioral intention through perceived ease of use, perceived usefulness, and perceived credibility.

## **1.2 Background of study**

One of growing phenomenon in banking services is that the usage of the internet as a channel for banking services. However, Internet Banking might not be easy for the consumers. By offering Internet Banking services, traditional financial institutions seek to lessen the operational costs other than improving consumer banking services, retaining consumers and expanding the share of customers. Recent evidence suggests that an internet-based consumer banking strategy may be effective, with reports of more profitable, loyal and committed consumers compared with traditional banking consumers (Lichtenstein; *et al*, 2006).

Consumers' usage of Internet Banking requires acceptance of the technology, which can be complicated because it involves the changing of behavioral patterns (Meuter *et al.*, 2000). In one hand, technology can be simplified as consumers' understanding of exchange, but on the other hand, it can make consumers' understanding becomes more difficult. Consumers perceived that the Internet is a technology that leads to control and chaos, freedom and enslavement, new and outmoded practice, fluctuation in the feeling of competence and efficiency, fulfillment and creation of needs, promotion and hindrance of social interaction, also engagement and disengagement. These ambiguities have made the Internet technology difficult for consumers to understand. When the consumers having hard times to understand the technology, at the same time they also need to understand the banking services. The complex nature of financial services often renders the task of information search easier than information evaluation (Black *et al.*, 2002). The

combined effect of consumers' understanding in both internet channel and banking services is difficult to foresee. Therefore, there is a need for more research in consumers' use of complex services in the Internet.

In examining users' acceptance of information systems, the Technology Acceptance Model which also known as TAM (Davis, 1989) appeared to be the most widely accepted model among information systems researchers (Wang, Y. S *et al*, 2003) because of its parsimony and it has better empirical support (Wang, Y. S *et al.*, 2003; Guriting, P *et al.*, 2006). Consumers' usages are important because it builds consumer habits and reduces consumers' uncertainty. This is because it develops understanding in social exchange processes. The internet banking acceptance can be studied by examining the causes behind frequency of use of Internet Banking.

Many studies have been carried out to examine the determinant factors in computer technology acceptance. This issue has become a central field of study in electronic mediated context. Amin (2007) attempted to explore the factors that have influence on Internet Banking acceptance among undergraduate students. His study is based on a theoretical framework that is based on a modified version of Technology Acceptance Model (TAM); he added the computer self-efficacy and perceived credibility as two new dimensions to TAM. He concluded that three factors – perceived usefulness (PU), perceived ease of use (PE), and perceived of credibility (PC) – significantly affect behavioral intention (BI). These factors have been known as determinants for undergraduate acceptance toward Internet Banking. Additionally, the obtained results showed that PU and PE were significantly affected by computer self-efficacy, and improvement of the quality of security and privacy must be considered.

### 1.2.1 Internet Banking in Malaysia

Pang (1995) claimed that the revolution of e-commerce in Malaysia especially in banking sector has started since 1970's. While in the context of Internet Banking, it was only started on June 1, 2000 when Malaysia Central Bank gave the permission for local banks to own the commercial banks. Maybank became the first bank in Malaysia which has introduced Internet Banking services in Malaysia. The global trend in using the Internet is increasing, not only at the other parts of the world but as well as in Malaysia. An empirical study by Sulaiman *et al.* (2005) recommended that the adopters' perceptions of Internet Banking in developing countries are intended to be favorable. On the other hand, according to Telekom Malaysia (TM), the number of the Internet subscribers in Malaysia is expected to reach the 10 million mark in the next five years (Bernama, Jan 30, 2007). In other words, Malaysia's internet subscribers have doubled in year 2012.

The largest domestic bank in terms of assets as well as network distribution is Maybank. Maybank has successfully own its portal at ([www.maybank2U.com](http://www.maybank2U.com)). It became the first bank which has introduced Internet Banking services in Malaysia.

**Table 1.1:** Lists of Commercial Banks that Offer Internet Banking Services in Malaysia, (Bank Negara Malaysia Website).

Commercial Banks	Internet Banking Services
1 Affin Bank Berhad	Yes
2 Alliance Bank Malaysia Berhad	Yes
3 AmBank (M) Berhad	Yes
4 Bangkok Bank Berhad	No
5 Bank of America Malaysia Berhad	Yes
6 Bank of China (Malaysia) Berhad	No
7 Bank of Tokyo-Mitsubishi UFJ (M) Berhad	Yes
8 BNP Paribas Malaysia Berhad	Yes
9 CIMB Bank Berhad	Yes
10 Citibank Berhad	Yes
11 Deutsche Bank (Malaysia) Berhad	Yes
12 Hong Leong Bank Berhad	Yes
13 HSBC Bank Malaysia Berhad	Yes
14 Industrial & Commercial Bank of China (M) Bhd	Yes
15 J.P. Morgan Chase Bank Berhad	Yes
16 Malayan Banking Berhad	Yes
17 OCBC Bank (Malaysia) Berhad	Yes
18 Public Bank Berhad	Yes
19 RHB Bank Berhad	Yes
20 Standard Chartered Bank Malaysia Berhad	Yes
21 Sumitomo Mitsui Banking Corporation (M) Bhd	Yes
22 The Bank of Nova Scotia Berhad	No
23 The Royal Bank of Scotland Berhad	Yes
24 United Overseas Bank (Malaysia) Bhd.	Yes

According to the lists adopted from Bank Negara Malaysia's website, by referring to Table 1.1, there are 22 commercial banks (excluding Islamic bank) out of 24 licensed commercial bank institutions in Malaysia providing Internet Banking services for public. As we can see, most of the banks have realized the benefits of providing banks services through internet. With increasing number on Internet Banking adoption of people, banks that are unresponsive or unable in react to this issue might not be able to compete in the banking industry (Liao *et al.*, 1999).

The global trend in using the Internet is increasing, not only at the other parts of the world but as well as in Malaysia. As consumers and companies become more comfortable and trust with online purchase and viral marketing which is also known as word of mouths will benefit banks by bringing more prospects to their virtual branches.

However, the uptake among Internet Banking users has yet to be determined. There are little researches conducted in Malaysia which focus on the popularity of Internet Banking among young intellectuals. Previous studies for Internet Banking were anonymously to address specifically potential young users as their main target of researches (i.e. Guriting and Ndubisi, 2006 and Sathye, 1999). As a result, the understanding of individual attitudes and behaviour towards Internet Banking are vital to increase the level of acceptance among the target. Although there were plenty evidence that the electronic revolution has commenced in Malaysia, nevertheless, the acceptance of Internet Banking is still not preferable by most of the bank users, predominantly with regard to the predictors of intention among users.

### 1.3 Statement of problem

In Malaysia, majority of the participants are young people and by developing internet banking in the Malaysian context, it seems very important to pay more attention to the young people according to their demands. Malaysian government should train young people regarding the internet banking and its advantages compared to the conventional methods. It is clear that using internet banking in Malaysia, young users can save their time and money.

In general, internet banking represents the industry with an electronic and remote distribution channels. As a service delivery method, internet banking introduced in 1997 has involved a lot of cost in setting up the network (Furst *et al.*, 2002). Banks involved in providing internet banking services are intended to accelerate the adoption process by understanding that the cost of delivering a service over the Internet is less than delivering the same service over the counter (Polatoglu and Ekin, 2001).

Over the years, internet banking is increasingly becoming a popular channel. The trend is mostly adapted in developed countries and spreading in developing and less developed countries with the impact of globalization. Therefore, using the Internet, the process of banking becomes smoothly, yet the services and information provided via computer networks can be delivered to customers in an easy manner. Online banking can be considered as a frequent activity in most of the developed countries. It plays a vital role to let the financial transactions work efficiently and effectively, as well as to fulfill the needs of individual and the organizations.

The global trend of internet usage is increasing, including Malaysia. An empirical study conducted by Sulaiman *et al.* (2005) recommended that the adopters' perceptions of internet banking in developing countries were intended to be favorable. On the other hand, the number of the internet subscribers in Malaysia is

expected to reach 10 million marks in the next five years according to Telekom Malaysia (TM), (Bernama, Jan 30, 2007). On the other words, Malaysia's Internet subscribers are to be doubled by 2012.

In examining users' acceptance of information systems, the technology acceptance model or TAM (Davis *et al.*, 1989) appears to be the most widely accepted model among information systems researchers (Wang, *et al.*, 2003) because of its parsimony and better empirical support (Wang, *et al.*, 2003; Guriting, *et al.*, 2006).

According to TAM, perceived usefulness is the degree to which a person believes that using a particular system would enhance his or her job performance. Davis *et al.* (1992) define that perceived usefulness is related to consumers' perceptions regarding the outcome of the experience. On the other hand, Davis (1993) refers to perceived usefulness as individual's opinion on using the new technology is expected to improve her/his performance. Perceived usefulness was adapted into the research model because it has been well documented and consistently supported by many empirical studies to have an impact on the behavioral intention. Another variable that was in the research model, which was adopted from the TAM, was perceived ease of use. This was because perceived ease of use was one of the major variables in determining the internet banking intention and it is supported by many empirical studies. According to Davis (1989), perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort.

Perceived credibility is a new variable or construct that is added into the proposed TAM model. According to Wang *et al.* (2003), perceived credibility refers to the two important dimensions, namely security and privacy, which were identified across many studies as affecting intention of the users to adopt the Internet-based transaction systems. Roboff and Charles (1998) showed that consumer's confidence in the technology was still weak, while their trust in their bank was strong. Unlike in

the past few decades, today's consumers are more concerned about security and privacy issues (Howcroft *et al.*, 2002).

Computer self-efficacy (CSE) is considered as one of the external variables in TAM model. It relates individual beliefs in their ability to perform a task, which at the end, the individual is expected to be influenced in terms of the task effort, persistence, expressed interest, and the level of goal difficulty selected for performance (Bandura, 1977; Gist, 1987). Generally, individuals with high efficacy expectations are more likely to be successful in a given task (Oliver and Shapiro, 1993). It means a high self-efficacy individual will work harder and longer than a low self-efficacy individual, as stated in the study from Wood and Bandura (1989). Moreover, researchers also frequently found that performance was improved by self-efficacy level (Bandura, 1982).

The external variables in TAM model such as CSE has been proposed by researchers to explain how an individual reacts to information systems (Mohd Shoki Md Ariff, *et al.*, 2012). In TAM, there are two determinants of Perceived Usefulness (PU) and Perceived Ease of Use (PE), which are widely used to determine acceptance of information systems and they have been shown valid in predicting the individual's acceptance of various corporate IT (Doll, *et al.*, 1998). Reviews on the acceptance of internet banking systems research including TAM and BI suggested that users' perceived credibility (PC) of the systems should be considered to better predict BI of potential users in using the systems (Amin, 2007; Wang, *et al.*, 2003; Pikkarainen, *et al.*, 2004).

Based on the above discussion, there are two significant determinant factors of Internet Banking system among young users, which are Perceived Usefulness (PU) and Perceived Ease of use (PE). These two factors express improvement of users' performances. TAM has been widely investigated in the context of internet banking system. Therefore, Perceived Credibility (PC) was added into the proposed TAM model to improve TAM. The inclusion of PC refers to two important



dimensions, namely security and privacy. The element of trust is suggested to be included in the modification of Perceived Credibility (PC) which would provide higher variance in TAM model. Moreover, the inclusion of Computer Self-efficacy (CSE) will also shows that performance will improve along with the self-efficacy level. If bank managers review the determinant factors of internet banking acceptance among potential young users, they can design accurate and consistent strategies to attract young users' attention to the use of internet banking system services.

In addition, Mohd Shoki (2013) stated that ICT Professionals' CSE indirectly affects their BI to use the internet banking systems through PU, PE, and PC of TAM. The total of indirect effect is accounted 0.343. TAM was found to have direct effects on respondents' BI to use the systems. The total direct effect is 0.849. Thus, PU, PE, PC of TAM was found to have significant and direct influence on ICT Professionals' BI to use the internet banking systems. Moreover, there are a total of 48.8% of the variance in BI, which is explained by TAM model - PU, PE and PC. These results are coherent with the final version of TAM model proposed by Venkatesh and Davis (2000).

In addition, Amin (2007) reported that maximum number of the variance in BI base of the factors was 33.37%. All in all, the past studies showed that the maximum variance in BI was 48.8%. However, the current construct is on PC which only measures the security. By adding the element of trust, we can expect that the variance will rise to 62% or higher. Therefore, based on this review, PC has been extended to include more trust elements. Theoretically, this provides a modified extended TAM. Thus, this research provides additional insight into the study of acceptance of internet banking system.

*RQ 1:* What are the determinant factors of Internet Banking system Intention among potential young users?

Previous studies have shown that there is empirical evidence on the effect of computer self-efficacy on perceived usefulness (PU) and perceived ease of use (PE) that has been documented by many researchers (e.g., Agarwal *et al.*, 2000; Venkatesh, 2000; Venkatesh). This shows that there is a causal link between computer self-efficacy and perceived ease of use (Venkatesh, 2000; Agarwal *et al.*, 2000). The proposed relationship between computer self-efficacy and PE is based on the theories proposed by Wang *et al.* (2003) and Guriting and Nelson (2006). Based on Theory of Planned Behavior (TPB), the Perceived Behavioral Control (PBC) is an individual's perception of how easy or difficult it would be to perform the target behavior (self-efficacy).

The proposed relationship between computer self-efficacy and perceived credibility is based on the theoretical argument by Guriting and Ndubisi (2006). Guriting and Ndubisi (2006) found that computer self-efficacy was significantly associated with PU and PE. In addition, Wang *et al.* (2003) implied that CSE could have negative effects on perceived credibility of the internet banking.

Based on the past studies, CSE has dimensions that affect PU, PE, and PC either positive or negative effects. However, the researchers did not include CSE as an external variable to examine the effects of CSE on PU, PE, and PC. Thus, this study extends the empirical evidence to find the effect of CSE on PU, PE, PC and also the element of trust in this context.

*RQ 2:* Does CSE affect PU, PE, PC also the element trust of TAM to the potential young users behavior intentions to use Internet Banking system?

Extensive research conducted during the past decades provided evidence of the significant effects of PE on users' intention, either directly or indirectly through its effect on PU (Sarkani, *et al.*, 2013). In order to prevent the "under-used" useful system problem, internet banking systems need to be both easy to learn and easy to

use. It should be easy to use because it will be less threatening to the individual (Moon and Kim, 2001). PU is an extent to which a person believes that the use of a particular system will enhance his or her job performance and it has been found that it has positive effects on BI to use internet banking (Mohd Shoki Md Ariff *et al.*, 2012). PE indicates the degree where a person believes that using a particular system would be free from effort, and it has been found to have positive effects on BI (Mohd Shoki Md Ariff *et al.*, 2012). This implies that perceived ease of use is expected to have a positive influence on users' perception of credibility in their interaction with the internet banking systems. Thus, we can make hypothesis that perceived ease of use will have a positive effect on behavioral intention for using the internet banking systems.

There is also an extensive research in the IS community that provides evidence of the significant effect of PU on usage intention (Abubakar, 2013; Venkatesh and Morris, 2000). The ultimate reason why people are using internet banking systems is they have found that the systems are useful to their banking transactions. In addition, the ease of use and usefulness beliefs, and the intention to use internet banking can be affected by users' perceptions of credibility regarding security and privacy issues. The majority of computer system's users are relatively ignorant about the security, or non-security, of the system they use. In fact, if they were asked, they tend to claim that they do not care (Karvonen, 1999). In general, the perceived credibility that people have in the system to conclude their transactions securely and to maintain the privacy of their personal information affects their voluntary acceptance of internet banking systems. This shows that it has a significant positive effect on behavioural intention. PC is identified across many studies to have effects on users' intention to adapt with the internet-based transaction systems (Mohd Shoki Md Ariff *et al.*, 2012). The importance of trust in e-services is vital to the transactions because the degree of uncertainty in a virtual environment makes the user more vulnerable and having the issues of privacy and security.

By looking at the determinant factor that constitutes PC and element of trust, both have the common point of security and privacy. For this reason, the researcher

combines these two constructs together in order to explain more variance in TAM model as one of the factors influencing users' intention toward using internet-based services. The issue is 'do the proposed PC and element of trust affect the behavioral intention of users to use the internet banking system?'

RQ 3: Do PU, PE, PC and element of trust in TAM effect Behavior Intention to use Internet Banking System?

Computer self-efficacy (CSE) is defined as the judgment of one's ability to use a computer (Compeau and Higgins, 1995). Prior research has suggested a positive relationship between experience with computing technology and a variety of outcomes such as an effect on computer and computer usage (Agarwal, *et al.*, 1999). Moreover, review on the past studies shows that CSE has significant influence on the intention through PU. TAM also proposes that external factors affect intention and actual use through mediated effects on PU and PE (Park, 2009). It has been shown that the future managers' CSE indirectly affects their BI to use the internet banking systems through PU and PC of TAM (Shoki *et al.*, 2012).

RQ 4: Does CSE effect on Behavior Intention through PU, PE, PC and element of trust in TAM?

It is acceptable to say that internet banking is becoming a central field of study by many researchers in Malaysia. Though, based on review of past studies on Malaysians' internet users, there are some evidence that researchers didn't focus on comparison of ICT students and non-ICT students. The models that Chau and Hu (2001) empirically examined and compared were by using the responses to a survey on telemedicine technology acceptance collected from physicians who were practicing it in public tertiary hospitals in Hong Kong. Riemenschneider *et al.* (2003) applied a series of loose to tightly integrated models (TAM and TPB) to the IT's adoption decisions of small business executives regarding a web site. Erriksson *et al.*,

(2005) modified the technology acceptance model and applied it to bank customers in Estonia. Amin's studies in 2007 uniquely offered a specific understanding on internet banking acceptance among undergraduates. Moreover, Shoki (2012) addressed the determination of acceptance of internet banking system among potential young users, specifically among future young managers and it determined the acceptance of internet banking system among future information and communication technology (ICT) professionals.

As stated previously, the researchers such as Guriting (2006) who studied on customers of banks, Amin (2007) who studied on undergraduate students also Shoki (2012) who studied on marketing and ICT students in Malaysia did not examine the acceptance of ICT students and non-ICT students towards internet banking services. Therefore, this research attempts to compare ICT students and non-ICT students based on their knowledge about computer in order to find difference in their acceptance of internet banking service. It is important to know whether TAM constructs is invariant for our samples across different groups such as ICT students and non-ICT students. The findings of this study revalidate TAM construct into new context.

RQ 5: Is there any difference in the acceptance of Internet Banking between ICT students and non-ICT students?

#### **1.4 Aim of Dissertation**

The aim of this project is to evaluate the determinant factors of Internet Banking system and the effect of TAM on young users' behavior intention to use Internet Banking.

## **1.5 Objective of the study**

**This project follows these five objectives:**

- a. To examine the determinant factors of potential young users' acceptance of Internet Banking systems.
- b. To examine the effect of CSE on PE, PU, PC and Trust in TAM.
- c. To determine the effect of PU, PE, PC and Trust in TAM on Behavior Intention.
- d. To determine the effect of potential users' CSE on their intention to use Internet Banking through the PU, PE, PC and Trust in TAM.
- e. To investigate the differences in the acceptance of Internet Banking of BI to use the IBS between ICT students and non-ICT students.

## **1.6 Scope of the study**

The scope of the study is Universiti Teknologi Malaysia (UTM) students, who are using online banking account. This study focused on postgraduate students who are study in the field of computer science and students who study in other field. This is because to compare these two young users groups. Most of them are first

users of Internet Banking services so we can find what factors can affect their behavior intention.

## **1.7 Concept and Definitions of Key Terms**

In TAM, there are two determinants of perceived usefulness (PU) is perception that using system leads to enhanced personal performance while perceived ease of use (PE) is a perception that using system will be free from physical or mental effort. These two terms are widely used to determine acceptance of information systems and they are valid in predicting the individual's acceptance of various corporate IT (Chiravuri, A. and Nazareth, D, 2001). According to Wang *et al.* (2003) perceived credibility (PC) consists of two important elements namely privacy and security. Furthermore, security refers to the protection of information or systems from unsanctioned intrusions or outflows. Moreover, reviews on the acceptance of Internet Banking systems researches involving TAM and BI suggested that users' perceived credibility (PC) of the systems should be considered to better predict BI of potential users to use the systems (Amin, 2007; Wang, *et al.*, 2003; Pikkarainen, *et al.*, 2004). Besides that, the external variables in TAM model, such as CSE, are proposed (Venkatesh and Davis, 1996). Computer self-efficacy is defined as the judgments of one's ability to use computer. It has been extensively used by researchers to better explain how individual reacts to information systems (Guriting, *et al.*, and Ndubisi, 2006). Therefore, this study develops a technology acceptance model for Internet Banking system based on the modified version of TAM to examine the effects of CSE and PU, PE and PC on the BI to adopt the systems.

## 1.8 Significant of study

TAM was introduced by Davis (1989), which stressed on the adoption degree of a person in using a technology and aspects that affect his or her acceptance or intention to use the technology. TAM suggested that users' adoption of information technology systems is determined by their intention to use the systems, which in turn is determined by their beliefs towards the systems. Users' beliefs about information technology systems are influenced by their perceived usefulness (PU) and perceived ease of use (PE) of the systems. PU is the extent which a person believes that using a particular system will enhance his or her job performance (Wang, Y. S, *et al*; 2003). It has been found that PU has positive effects on BI to use internet banking (Guriting, P., and Ndubisi N.O; 2006).

PE indicates the degree to which a person believes that using a particular system, it would be free of effort (Davis, 1989; Wang, Y. S, *et al*; 2003). It has been found to have positive effects on BI (Guriting, P., and Ndubisi N.O; 2006). PC is added into the classical TAM (Pikkarainen, *et al*; 2004). PC is more related to one's judgment on the privacy and security issues of the Internet Banking systems. PC has been found to have a significant positive effects on behavioural intention (Wang, *et al*; 2003).

Current researches involving TAM is to examine the acceptance of Internet Banking system suggest that additional variables in TAM are required to derive a better understanding in determining the factors influencing the decision of bank users to use the systems also to improve the effect of the PC on Behavioural Intention. Thus, the element of trust is added to PC into the extended TAM.

The empirical evidence represents that the scientist have researched only on business students, costumers, internet users and other groups but they were never compared this groups together. So this study will provide additional insight in the use



of TAM and CSE in comparing the differences in the acceptance of Internet Banking of Behavioural Intention to use Internet Banking system between ICT students and non-ICT students. This research will revalidate CSE, PE, PU and PC of TAM and BI for the whole campus. Finally, it is important for bank managers to emphasize on users' CSE in designing any promotion strategies and marketing programs to influence potential young users to use their Internet Banking services

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