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An Exploratory Study of Factors Affecting the Internet Banking Adoption: A Qualitative Study among Postgraduate Students

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Abstract - This paper aims to explore and understand the factors that affect the internet banking adoption among postgraduate' students in International Islamic University Malaysia (IIUM). Approach- Semi-structured interviews with eight informants; four adopters and four non-adopters on postgraduate' students were conducted to explore this issue. The results revealed that adopters and non-adopters realized that internet banking (IB) has several benefits and conveniences. However, non adopters were concerned about some factors like trust, ease of use, awareness and security. The results also showed that adopters had positive influence on use of online banking and they did not have problems with these factors because they had sufficient knowledge and experience in using online banking. This study has several limitations such as the sample used for the study was from a specific group of respondents in Malaysia (postgraduate' students at IIUM). The second limitation was that informants were postgraduate 'students who had limitation on banking transactions. The findings are important to enable bank executives to have a better understanding of clients' perception to adopt internet banking. This will help banks' managers and owners formulate strategies that could significantly affect IBA among their customers.

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I. INTRODUCTION

Over the past few decades, the world has been an unprecedented evolution of Information Technology (IT) which affected life as we know it. All industrial sectors have been affected especially the services sector. In recent years, the banking industry has undergone rapid technological changes and development. Therefore, banks have launched several service access methods via new delivery channels like ATM technology and Internet Banking Service (hereafter called as IBS). The growing importance of Information Systems (IS) in banks was the establishment of fully-fledged IBS by Security first Network bank in USA in 1995 [1] IBS is a new type of information system that uses the innovative resources of the internet and allows customers to engage in financial activities through virtual spaces and environments [2].

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Furthermore, IBS is extremely beneficial to both banks and clients. The main benefits to banks are cost savings, time saved, reaching new segments of the population, efficiency enhanced reputation and better customers' service satisfaction. [3] suggest that IBS offers new values to clients such as reduced costs in accessing and using bank services, increased comfort and time-saving transactions that can be made seven days a week and twenty four hours a day without requiring physical interaction with the bank speed of transaction and better administration of funds[4] IBS also offers a competitive advantage to banks by providing an unlimited distribution network. Through this technology, banks are able to provide services electronically such as lowering transaction costs and adding value to the customers' banker relationship. Moreover, a comprehensive online banking service strategy is essential for success in the increasingly competitive financial services market. Competition and changes in technology and lifestyles have changed making it more competitive and innovative. Due to the speed of technological change, bank are forced to continuously search for alternative and innovation services and products to keep with the rapidly change world [5]. As [6] predicted that approximately 20% of retail and 30 % of businessmen will use some form of Internet banking within the next five years

II. OBJECTIVE OF THE STUDY

There are past literatures studies on the adoption of internet banking, several of these studies have tended to focus on developed countries such as USA and UK [7]. However, still not predictable in some developing countries [8], [9], [10],[11]. Since the success or failure of internet banking is contingent upon the degree of its adoption.

This study attempts to explore and better understand these factors through the sampling (postgraduate' students) customers point of view. The IBS literature suggests five success factors or constructs for IBSA (convenience, ease of use, trust, security and awareness) for this study. The research question for this research can be formulated as:

What are main factors which influence the adoption of internet banking services?

In this context the factors that affect the adoption rate of internet banking which were considered in this study are listed as follows: convenience or benefits; ease of use; trust; security and awareness.

III. LITERATURE REVIEW

a) *Internet Banking*

Internet banking or online banking has been defined as “the service that allows consumers to perform banking transactions using a computer with an internet connection” [12]. Lloyd explains that these transactions include checking the balance in one’s bank account transferring funds between accounts and bill paying. [13] defined internet banking as “an internet portal used by clients for different types of banking services ranging from bill payment to investments”. According to [14] defined online banking “the use of the internet as a remote delivery channel for banking services and an internet bank is defined as a bank that offers transactional services via the internet. [15] propose that IB is the latest initiative in the spectrum of innovative banking services, Tele banking, ATM and debit cards. Internet banking has emerged as effective delivery channels for traditional banking products.

With The exception of cash withdrawals internet banking gives customers access to almost any type of banking transaction at the click of the mouse [16]. Electronic banking technologies refer to financial activities that involve use of electronic technology [17] ranging from the now ubiquitous automatic teller machines to other services such as direct deposit, e-fund transfer, e-bill payment, telephone banking and internet banking. [18] identify that there are three functional levels/ types of internet banking that are currently employed in the market place and these are: Informational, Communicational and Transactional.

b) *The adoption of electronic banking*

[19] defines adoption as “the acceptance and continued use of a product, service and idea. “The critical question is whether customers will accept the electronic form of receiving information and performing transaction. [20] explained that individual attitude toward accepting and adopting newly introduced technologies determine the success or failure of such technologies. As [21] found that the main reason for consumers not adoption ATMs was the lack of access, rather than their avoidance of the technology at its introductory stage.

Another related study [14] reported that having access to e-banking technologies is related to whether the consumer is affiliated with a bank that offers a variety of service options including computer banking. He also mentioned that perception of socioeconomic characteristics and innovation characteristics have proposed to influence consumers’ adoption technological innovation. Therefore, internet banking adoption is defined

as “The customer’s usage of multiple services represented in inquiring about account balance applying for a loan, remitting money from one count to another and many other services that are basically carried out online [22].

Another author described e-banking as internet banking that involves the provision of banking services such as accessing account transaction funds between accounts and offering internet financial services. [23] explained that the challenge to expand and maintain banking market share has influenced several banks to invest more in making better use of the internet.

c) *Theoretical underpinning theory of Internet banking adoption*

i. *Technology Acceptance Model (TAM)*

The Technology Acceptance Model (TAM) is one of a number of studies that have helped in providing theoretical framework for research in the adoption of information technology over the last few decades. TAM has been used extensively as the basis of a range of empirical studies [24]. Introduced by Davis in 1986 TAM was specially designed to explain and predict the behavior technology acceptance at work by specifying the determinants in belief, attitude, intention-IT usage relationships [25].

Moreover, [26] reported that, it is necessary to further explore the nature of technology and using – context factors that may alter the adopter’s acceptance. For example, recent research has illustrated that “trust” has a striking affect on users’ willingness to engage in internet exchange of money and sensitive personal information. Another example is the perceived risk, [27] illustrated that perceived risk is a main determinant of adoption behavior business to consumers (B2C) e-commerce environment. Since the introduction of TAM in 1986, a number of studies have applied it in a broad variety of IT applications to predict user acceptance behaviors of computer technologies such as wireless email, voice mail and online shopping [27]. As [29] mentioned that the TAM posits a user’s adoption of new information system is determined by that user’s intention to use the system which in turn is determined by the user’s beliefs about the system.

Furthermore, [25] noted that technology acceptance research must address how other variables influence ease of use, usefulness and user acceptance. Therefore, perceived ease of use and perceived usefulness may not explain behavior intentions towards the use of internet banking, necessitating a search for additional factors that can better predict the acceptance of internet banking. Additionally, [27] stated that TAM examines the mediating role of perceived usefulness and perceived ease of use in their relation between external variables and the probability of system use. The use of an extended TAM as a theoretical framework is adopted to test the effect of external variable such as,

security, risk, trust and awareness on the intention to use IB.

d) *Factors influencing adoption of Internet Banking*

Previous studies will show that altitudinal factors (also referred to as perceptions, characteristics, or experiences) affecting internet banking adoption. Some factors have most frequently demonstrated statistically significant relationship with internet banking adoption such as convenience, perceived ease of use, trust, security and awareness Lloyd Gibson,(2007). These factors demonstrated statistically significant relationship in studies performed in the developing countries such as [30] in Malaysia; [31] and [2] in Jordan; [32] in Oman; [33] in Tunis; [34] in Labia; [35] in Lebanon; [36] in Mauritius and [10] in Bangladesh).

i. *Convenience*

[37] pointed out that banks benefits from lower operating by offering online banking services which require less employees and fewer physical branches and also customers will benefit, around-the-clock availability and speed of IBSs. He also added customers can pay their bills at any place and any time when they access internet because of the versatility of e-payment method. As [7] found that internet banking one the cheapest and more efficient delivery channels. He also added that benefits of the end adopters are numerous and include mainly convenience of service (time saved and globally accessible service) lower cost of transaction and more frequent monitoring of accounts among others. Furthermore, Ramsay and Smith (1999) explained that the main motivator for internet banking to be convenience in term 24 a day and 7 days a week access and time saved. Accessibility, which may be related to convenience, has been found important [38].

ii. *Perceived ease of use*

According to [25] perceived ease of use is defined as: “the extent to which a person believes that using the system will be free of effort”. In order to prevent the under-used useful system problem, online banking systems need to be both easy to use and easy to learn [32]. The reason is that effort saved by improved perceived ease of use can enable people to do a better job or accomplish more at work, thus enhancing their job performance [25].

In addition, [37] reported that perceived ease of use is postulated to have a positive direct effect on attitude toward using IT. Therefore, the higher perceived ease of utilizing a particular IT makes it more likely that the individual will have a positive attitude toward using it. Another related a study in Bangladesh on 400 banks' clients have been revealed positively affects the attitude toward using the technology and the findings imply that banks need to make internet banking ease of use [39] In the same field [40] tested the impact of the some factors upon the attitudes of retail users of banking services in Mauritius, he found that the most significant

factors are ease of use and trust to adopt of IB. Another study have done by [32] found that the research threw up three main issues related to perceived ease of use in Oman' banks, easy to manage and easy to learn. The researcher also inferred the difficulty of navigating on internet was highlight by Oman bank managers.

On the other hand, not all studies found that perceived ease of use has a positive effect on the adoption of online banking. For example, in developed counties such as [41] reported that, the relationship between ease of use and attitude to use online banking no significant and it has not been added to the model. Another related study in Fenland [7] found that the perceived use of use does not influence the adoption of online banking.

iii. *Perceived Trust*

Trust can be defined as “generalized expectancy ...that the word, promise, oral or written statement of another individual, or group can relied upon” [42] While [43] defined trust as “users thought, feeling, emotions, or behavior that occur when they feel that an agent can be relied upon to act in their best interest when they give up direct control”. [11] defined trust in manufacturer distributor as a belief that the partner company will not take unanticipated action that may result in negative outcomes for the firm.

[44] explained that, trust is needed not only in the pre-transaction and transaction phases, but also in post-transaction phase in the form of warranties and reimbursements. He also illustrated that trust in online banking addresses several different aspects of information system, including technical, reliability, and security information quality. Several studies have proved the significant relationship between internet banking and trust or any e-commerce. For instance, [45] tested on 1,500 banks' clients from the three banks in Jamaica, the findings indicated that trust is indeed a significant factor impacting both perceived usefulness and ease of use to adopt online banking. Moreover, [46] pointed out that the online services need the trust element, since trust is one of the main additions influencing the electronic setting?

Furthermore [47]) in Malaysia, this study has been shown that the relationship between trust and the attitudes of a number of college students towards the IBSA was positive. In the same field, [11] tested the impact of trust factor on corporate' clients who use internet for banking in Jordan, this study indicated that trust has a significant positive effect on ease of use to adopt IB. The study also showed that, the more a user trusted the bank and its website, the higher their belief that online banking was easy.

iv. *Security*

Security perceptions are defined as “the subjective probability with which consumers believe that their private information will not be viewed consistent

with their confident expectations”[48]. Security of transactions over the internet is a burning issue and it is an important factor that clients consider before adopting internet banking. Some customers avoid electronic banking as they perceive it as being easily susceptible to fraud [49]. Another related study by [19] found that 73% avoided the adoption internet banking because they are concerned about security and safety of transactions over the internet. Moreover, he also inferred that clients will not be ready to change from present familiar ways of banking to online banking unless their specific need is satisfied.

v. Awareness

Rogers (1983) defined awareness of innovation as “innovation’s existed and gain some understanding of how function”. While [19] has defined awareness of innovation as “understanding whether the customer is aware or not aware of service itself and its benefits”. He also shows that low level of IBS awareness is a critical factor in causing customers not to adopt internet banking. In this field [2] indicates that the importance of awareness for the adoption of any innovation and increasing the awareness levels of innovation of e-commerce among users has been identified as a major catalyst to encourage the adoption of electronic technologies.

Additionally, [8] explained that, the banking leader swishing to develop an Internet solution must educate customers on the security measures that awareness behavior is to build a trust relationship between the bank and the customer. He also illustrated that banking leaders then need to offer preferred products based on concepts such as knowing the customer and the customer’s history stored within the bank’s database. Furthermore, [23] suggested that if the banks provide their customers with sufficient information regarding the IBS, the customers will be more aware of these services. He also added that the banks can enlighten their customers on these services via brochures and any promotional campaigns.

IV. METHODOLOGY

The qualitative method was used to gain insight into how postgraduate students value online banking by interviewing both adopters and non-adopters of Internet banking. Eight informants were conducted with postgraduate’ students who study PhD and master in IIUM and they have accounts in banks. The researcher chose this sample because it was mainly very well educated. Another reason is that, postgraduate’s students have knowledge, awareness and several skills on usage of technology, in particular, computer and internet. The sample also contained two groups, the first of which consists of four of internet banking adopters and the second group consists of four non-internet banking adopters. This approach allowed us to

understand the perception of postgraduate’s students. For the purpose of this study, the convenience sampling technique was employed. It is defined as consisting of participants who are readily available and easy to contact. In spite of, this is considered as the least rigorous technique that involves the selection of the most accessible subjects, but is the least costly to the researcher, in terms of time, effort and money [50].

Standard semi- structured interview was used not only for the purpose of answering the study questions, but also to explore other additional and related information that may help meet the objective of this study. All interviews were conducted in person. They lasted 14-18 minutes with an average 16 minutes for adopters. However, non-adopters lasted 10-14 minutes an average 12 minutes because they did not have much information about online banking. Furthermore, transactions of adopters were limited with banks just fund transfer because they are not business’ students.

A set of interviews topics guided the interviews, with a list of probing questions to draw out informant opinions. Topics were discussed as perceptions to indentify the major factors which influence the adoption of online banking service from postgraduates’ perception in IIUM. Five factors were discussed with informants; these factors include convenience, perceived ease of use, trust, security and awareness. All eight interviews were audio-taped and transcription process yielded 18 pages.

V. FINDINGS AND ANALYSIS

The content analysis determined five affecting factors to internet banking. The interviews among postgraduate’ students indicated that some students have adopted internet banking and the others did not have adopted internet banking. Adopters and non-adopters were contrasted to determine possible difference.

a) Convenience

From the first interview question for most of informants adopters and non- adopters mentioned that internet banking has several benefits and convenience. Mostly, convenience and the benefits were described in terms of lifestyle, workplace use and housebound use, not having to travel, personal safety, not having to wait and also as found in the study, saved time 24/7 access. This has been viewed by the third informant as:

“I found banking online very well because of not having to travel to local branch or anything like that. I can do it twenty four hours a day.” (Adopter 3).

Another informant also has stressed convenience as one the factors. He stated that:

“people want rapidness and fastness, these the main two factors in order to adopt online banking, If you are in your business or in your home, you do not need to go bank and spend time for everything” (Adopter 1). The

view of the second adopter informants is supported by the first adopter:

"Many factors to lead to adopt online banking first, reduce the time, pay the bills and if you are in your home or your office you can pay the electricity bill, and water bill instead of going to the office." (Adopter 2).

Another informant adopter said "technology plays vital role especially in financial sector, taking about the facilities to provide holders by using of online banking" (Adopter 4).

Adopters and non-adopters made similar comments related to the issue of convenience, the first non-adopter sated: And another informant indicated that:

"Of course, online banking has too much benefit; first of all, minimize cost, for example, no need to travel from area to another area when you transfer money." (Non-adopter2). The fourth informant also shared the same view with the rest informants (Non-adopters 4). He further elaborated that:

"It is easy and save your time and you do not got to bank if you need or send money just you can transfer from your room."

The findings of the this study reveal that convenience is the most important factor in making the decision to bank using the internet both adopters and non-adopters. Most informants agreed that internet banking has several benefits and convenience. Adopters also felt more comfortable and enjoyable to deal with on this technology.

b) Perceived ease of use

Ease of use or usability was frequently cited and found linked to students' perceptions of complexity. Although most non-adopters already had experience using computers and internet, they felt that using online banking was difficult. Interestingly non adopters had formed views of complexity. The following was comments about this issue:

"I think one time I try to use and access to online banking, how I do it , I have confuse for using the transaction because it has a lot things inside the website and some people are not good enough in English in these facilities so they do not understand some terms in the bank' website." (Non-adopter 2).

Through this comment, we can see that English language plays essential role to adopt online banking because English' language is computer language.

Other informants mentioned that online banking is new technology and it has several complexes in the first time when the people use it.

"It is difficult for me. I think why it is difficult, I do not use it like hand phone. Any technology is difficult the first time but when I use it, it will become easily." (Non adopter 4).

Another informant is supported this issue:

"people cannot be use the IT; they are not familiar in modern IT system. It will be difficult for them to use modern technology compared to organizations and companies who have information and can use this technology." (Non-adopter1).

Some customers do not understand technology and they need to guide them to go the bank' website and how to inter to their accounts and open the website? They need to explain and learn using of online banking:

"There is problem even they know online banking; they do not know to use it because many technical terms that has been used." (Adopter 4).

On the other hand, adopters stated that internet banking is ease of use and they do not face difficulties when they use it and also others mentioned that online banking is easy way to conduct banking transactions. The first informant reported:

"All customers of banks are adopting to find the entrance to online banking is free, it is easy for me to use online banking and I have knowledge in the internet banking." (Adopter 1)

Another adopter said:

"I expect to be easy to do something that, online banking is easy way to conduct banking transactions and I perform my bank transaction on web easily." (Adopter 3).

In this factor, it is observed that most adopters did not face difficulties when they use this technology and they are familiar with using internet banking. However, non-adopters felt that ease of use or the difficulty in using online banking was problem for them. They also felt that using internet banking was complicated to understand and not easy because it is new technology. Therefore, banks should educate their customers to adopt this technology specially students' segment.

c) Trust

This statement highlights how the trust was often perceived by informants. Some adopters informants believed that customers' trust depend on the bank:

"The customers" trust depends on the bank because I deposit my money in the bank and I trust in my transactions in the bank so, I also have to trust online banking." (Adopter 1).

The second adopter also shared the same view. He elaborated that:

"The banks have to make a high trust for their customers and they encourage non users to use this technology because it saves time and effort too and non users should use this technology specially universities' students because they have more education compared to other people."

Distrust of technology was also revealed by various comments made about the security and privacy of internet technologies. Some informants did not use online banking because they did not have confidence with small banks in order to achieve their transactions by online banking: "There is a major factors which is very important in the banking industry so a big bank is trusted because the customers trust to deposit their money in a big bank but small banks have some problems for trusting, I like to deposit my money in a strong bank to use online banking later." (Non-adopter 1).

The third non-adopter informant had another feeling about trust. He said:

"In my case, I do not trust for using of online banking because the hackers and someone access to my account. So, if the bank has risk without online banking no doubt for me, I cannot put money in this bank sometimes".

The view of the fourth informant (non-adopter) is supported by the third informant by stating:

"I do not trust because I will be afraid if my money is lost or any hacker to access to my account, this is important issue and criminal."

To summaries this, trust is one the most critical issues. According to informants, some of them had this concern but non adopters had greater levels of worry, they did not have confidence to make any financial transactions via the Website. Moreover, trust is related to experience with the bank and bank policy, which contributes to customers' trust in bank business practices.

d) Security

Security is the main challenge because customers are doing the financial transaction through banking web site and they are not sure about the successful transaction or hacking of important personal information. So, the greatest concern expressed by most non-adopters was security. Many non-adopters commented on this:

"I do not like using online banking system because I hear about high hacking people and even though there are a lot of facilities, it has high risk because after I lose my money nobody can be responsibility, I do not have any evidence." (Non-adopter 2).

Additionally, another non-adopter shared the same view, as he stated that:

"I will be afraid if my money is lost or anyone hacker to access my account this is important issue for example, if I send money by internet to my friend and he does not receive, who is responsible for that" (Non adopter 4). From the above statement, there is strong indication, the fear of hackers, lack of trust and privacy are the core of customer's security concerns in internet banking transactions. Furthermore, another informant reported that:

"Security is the major factor and privacy for online banking system because nowadays, banking sector is a big dealing especially for companies, they have many transactions. So, banks have to give reality and security of customers." (Non adopter 1).

Most non-adopters informants had the similar feeling about security. They were afraid from hackers or someone accesses to their accounts when they use online banking.

In contrast, some adopters had a positive feeling for usage of internet banking they mentioned that their faith in banks having strong security measures such as virus checkers and recovery from system failure. For example the second informant explained that:

"Bank seeks to achieve and realize the safety for customers in the use of internet banking for example, my account was closed twice because one hacker entered to my account and bank informed me, I tried the second time but I cannot enter to my account. As well as, he added "banks have a high level of modern virus to protect money and personal information, so that one cannot penetrate this information or have access to personal account or banking transactions." (Adopter 2).

Moreover, another adopter stressed that banks have modern systems to protect their customers' transactions by internet. He said:

"I did not this find problem, some of the banks have following new policies like that change identity or kinds of internet security coders very frequently like mobile phone number, if you have wrong or any mistake through entrance to use online banking for example, transfer money the system will lock directly." (Adopter 1).

The fourth adopter is supported the others, he mentioned that:

"In this regard, banks has technical department, when the customers do their transactions by online, there are many details to protect privacy and security. Bank is serious in particular in terms of protection customers' information, it does not give any information for other."

From the above statement, it can be observed that adopters did not have concern regarding security due to they have sufficient knowledge and experience for using it. However, non-adopters did not deal with this technology and they did not have enough information to use online banking and they also had concern about security. It is observed that Adopter who had a technical background and understood security technology, they had higher levels of confidence in internet security than others.

e) Awareness

According to the findings of the interviews, some non-adopters had low awareness of online banking services and they also had little information

about online banking. Due to this reason they did not want to know what are advantages and disadvantages on using it. Moreover, they said banks did not provide their customers much information about using this technology. This can be seen that the following informants' statements regarding the awareness:

"I have little information about online banking, I think this phenomena is new I do not know completely about transaction of online banking and he said also banks have to educate their customers and give them information to use online banking and advertising is very important from the banks to customers." (Non adopter 1)" I do not have information about transaction and how to access, how to use just my bank gives me little information for check balance. If the banks provide these services and they have to explain their people how to use, how to do their transactions." (Non-adopter 3).

The fourth non-adopter also supported the previous argument. He mentioned that: "Just I lessen my friend who use internet to send his money from online banking and he buys air plane ticket and he said the bank must gives aware to people to use internet banking." (Non adopter 4) The above comments from non-adopters mentioned that they did not have enough information and they also are not much aware about use internet banking.

In contrast, adopters had a positive feeling regarding the awareness and they have enough

information for using online banking. He explained about his information towards using online banking:

"I got information about using internet banking from my bank and my friend tell me about use and banks gives me information to use online banking but just users and when you use this service, bank will guide you what are the next steps." (Adopter 2).

Another adopter has stressed that: "Nowadays, bank gives this option another bank must at least that kinds of options. If you go to the bank or you open online banking service, you have so many advertisements and you will get some discount" (Adopter 1).

As the third adopter mentioned that banks have to educate and aware their clients:

"I think to take about the awareness we can see clients of banks, bank must aware their clients and they have educate adopt online banking and also the society how be developed."

In summary, it can be observed that most non adopter had less awareness of internet banking applications and they had little information about using of online banking because they did not deal with this technology. On the other hand, adopters had more awareness of online banking and they got sufficient information from their knowledge and experience on use it.

Table 1 : Shows summary of informants 'perception between adopters and non-adopters of IB

Factors	Internet banking adopters	Non-Internet banking adopters
Convenience	It is rapidness and fastness, save the time; 24 hours a day and 7 a week. Reduce the cost	of course online banking has too much benefits. First of all, minimize cost , it is easy to transfer money and time saved;
Ease of use	It is easy to use and easy to learn for me; it is free and easy way to conduct banking transaction I do not face any difficulty.	For me, It is difficult to use and access, It has many technical terms inside web side; computer language is difficult.
Trust	the customers' trust depend on the bank because I deposit my money in the bank and I trust in my transactions in bank; Banks have to make a high trust for their customers, I did not find problem; Banks have a high level of modern virus to protect money and personal information; There are many details to protect privacy and security.	I do not trust for using online banking; I will be afraid if my money is lost; Small banks have problem for trust.
Security	I have got information from my bank and my friend; I have aware about use it; my bank guides me to use IB	It has high risk, I hear high hacking; I will be afraid anyone accesses my account; It is a major factor for online banking system.
Awareness		I do not have information about transaction by IB ; I do not completely about transaction of IB; I lessen my friend how to use; I think this phenomena is new.

VI. CONCLUSION

The main objective of this study is to explore and understand the factors affecting the adoption of

internet banking by (adopters and non- adopters) students in IIUM. From the analysis, we can come up with the conclusion that there are several factors that need to be considered and it is the duty of banks to

make sure that customers start using the internet banking services.

Convenience, twenty four hours availability, time savings and ease of conduction transactions at home were important benefits for internet banking mentioned by adopters. This study showed that students (adopters and non-adopters) realized that online banking will provide them with many benefits in the future.

According to study's findings, security and lack of trust have become a concern to non-adopters. In spite of, online banking provides flexibility in performing financial transactions and banks also have the means strong protection for security of information, non-adopters are reluctant to use the system due to the risk associated with it. Security also is element in the risk and clients are not ready to face any risk on using online banking. Non-adopters also did not believe that banks could protect their transactions when they used it. However, adopters trusted the ability of the banks to protect their transaction and privacy. In this case, banks need to build confidence about internet banking. The objective of the banks on the trust and security issues must be clear and their first priority.

Another issue raised by the non-adopters e-banking was difficult for them to conduct transactions online. They found difficult to understand and not easy while it was found easy for the adopters.

Eventually, the hindrance about awareness of online banking services is that, adopters were more aware and they have enough information on using internet banking. However, non-adopters were less aware of e-banking application and they did not have enough information how to use it. Therefore, , they did not know sufficient information about the advantages of doing transactions online and even banks are not providing much information so that customers can become well aware of online banking services.

VII. RECOMMENDATIONS

1. Banks must inform their clients about its security policy through all available media such as their websites or newsletters.
2. Banks must consider training and education programs that will help clients and non-adopters, in particular, overcome the difficulty of using online banking.
3. Banks should make an awareness campaign of security aspects of their internet services to encourage the use on internet banking.

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