

THE ADOPTION AND USE OF INTERNET BANKING BY MALAYSIAN CONSUMERS: AN EMPIRICAL INVESTIGATION

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ABSTRACT

Bank Negara Malaysia (BNM) removed the restrictions on providing banking transactions through the Internet on June 2000. This has enabled Internet banking to be emerged as a popular financial service delivery platform in Malaysia. The success of this new distribution channel for banking products and services depends on the adoption rate by Malaysian consumers. Thus, this paper examines the key determinants that critically affect consumers' decision in adopting Internet banking. It also aims at forming a model describing the relationships among these determinants in order to evaluate which determinants have a direct/ indirect impact on Internet banking adoption. It has revealed that convenience and accessibility of the Internet banking service have a significant impact on the adoption. In addition, simplification and ease of use of Internet banking, security and trust concerns as well as consumers' prior technology experience are found affecting their decision indirectly in adopting Internet banking. Finally, implications of results were highlighted and future research directions were outlined.

KEYWORDS

Internet banking, adoption, determinants.

1. INTRODUCTION

The popularity of PCs and easy access to the Internet and World Wide Web had brought in a paradigm shift in banking operations. Internet banking has increasingly emerged as a popular financial service delivery platform for banking institutions to offer innovative technology based services to their customers (Singh, B & Malhotra, P, 2004).

On June 1, 2000, Bank Negara Malaysia (BNM) removed the restrictions on providing banking transactions through the Internet. This has enabled all domestic banks to commerce Internet banking services. In addition, this also offers banking institutions a new frontier of opportunities and challenges further augmenting competition in the global banking market (Suganthi et al., 2001).

Evidence shows that banks are seeking to complete with the brick and mortar branches and slowly moving into multi-channel banking, primarily Internet banking, to attain cost advantages (Kurtas, 2000), to gain long term survival in the world of E-commerce and information technology (Burnham, 1996) as well as to improve customer service (Polatoglu & Ekin, 2001). Financial institutions that failed to respond to the need for Internet banking services will lose their competitiveness. This fact is coherent with the findings by Ahmad & Haron (2001), which concluded that Internet banking is an important strategy for banks to meet the challenges in globalization.

The success of this new distribution channel for banking products and services depends on the adoption rate by Malaysian consumers. Thus the factors that critically affect consumer adoption of Internet banking in Malaysia will certainly received significant attention from both bankers and practitioners (Guru et al, 2000).

Generally, this paper attempts to investigate the key determinants that influence the adoption of Internet banking among Malaysian consumer. It aims at developing a model describing the determinants of Internet banking adoption and explains how these determinants affect one another and Internet banking adoption rate. Consequently, the specific purposes of this paper were designed as follows:

- (a) To examine the key determinants of Internet banking adoption among Malaysian consumers.

(b) To analyze the relationships among these determinants in order to evaluate which determinants have a direct/ indirect impact on Internet banking adoption.

(c) To develop a model of Internet banking adoption based on the basic structure of relationships among the determinants considered in this study.

This paper is organized as follows. Section two discusses the literature most relevant to the major constructs addressed in this study. Section three states the research methodology adopted in this study and provides the findings of the survey. It begins with a description of the general characteristics of the respondents, followed by a summary of the respondents' perceptions on the importance of a list of determinants that motivate their decision in adopting Internet banking. Lastly, regression analyses were carried out to determine the extent of the relationships between the determinants and Internet banking adoption. Section four discusses the model developed from the regression analysis. Section five provides a summary of the research findings and conclusions. In addition, practical implications of the research findings and recommendations for future research are also discussed.

2. LITERATURE REVIEW

Web efficiency and content have been found to be important in influencing consumer adoption of Internet banking. To this extend, Santos (2003) proposed that prompt reply to enquires, fast loading of pages and images, frequent updating website's information and accuracy of product/service information will affect customer satisfaction in Internet banking. Understanding that efficiency of the web content affect consumers' attitude and intention towards Internet banking, it is worth noting that fast retrieval of information will certainly affects the consumers' adoption rate in the Internet banking.

In this study, ease of use refers to the perception on how easy and free from difficulty conducting an Internet banking transaction. Santos (2003) reported that simplification and ease of use of electronic service as an important determinant for adoption from the consumers' perspective. An easy-to-remember URL address, easy-to-follow instructions, concise and understandable data as well as easy to navigate in the website are crucial in determining whether consumer will accept the online service offered by the banks. For successful implementation, banking institutions must be therefore sensitive to these features. In short, banking institutions need to ensure that online banking services are simple, easy and online banking demonstration are always available in the website.

Another significant challenge of Internet banking is consumers' trust towards Internet banking. Literature suggests that trust is the key success for electronic commerce. In this study, trust involves perception of security as well as perception of privacy from consumers' point of view. Consumers are sensitive about their personal information and concern for the security of financial transactions over the Internet. In this context, the element of trust would determine the security of transactions for consumers generally and determine the acceptability rate of this alternative banking channel in the long run (Suganthi et al. 2001). The higher the customers trust in Internet banking, the higher the risk they are willing to take when conducting transactions with the website. In conclusion, security, privacy and trust concerns are undoubtedly the crucial factors in encouraging banking transactions over the Internet and ensuring the success of Internet banking (Sohail & Shanmugham, 2003).

Adoption of Internet banking appears to be influenced by its accessibility and convenience. With Internet, personal banking is no longer time or location bounded. 24 hours by 7 days availability of services helps in realizing the customers "anywhere, anytime, anyway" banking dreams (Singh, B & Malhotra, P, 2004). Thus, convenience has prompted to be an important factor that motivates decision in the process of adopting Internet banking. In addition, the fact that through Internet banking, consumers are able to manage their finances in a convenient way and have greater control over their finances also appears to play a major role in adoption decisions (Sabbagh & Molla, 2004).

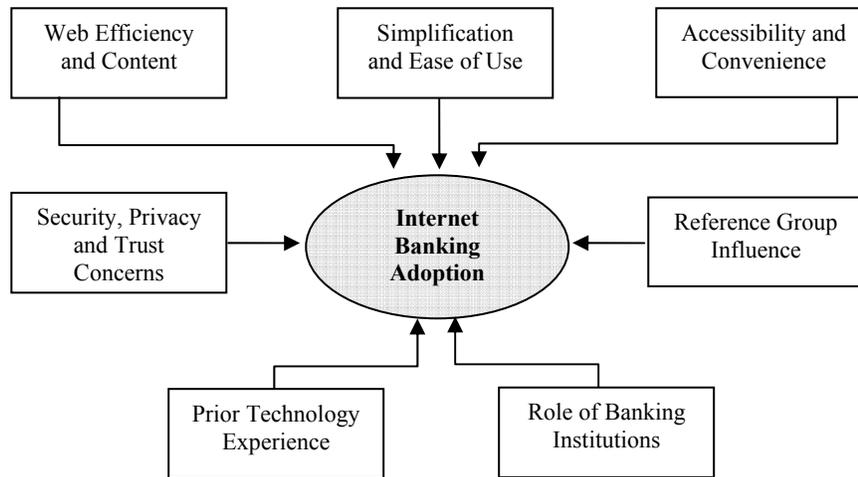
Studies have also revealed that social reference group may impact on consumer behaviour (Fishbein & Ajzen, 1975). The consumption of Internet banking services may be influenced by several groups of consumer. For instance, external influence in the form of peer pressure from friends and family members may be a strong determinant of consumer behaviour (Sabbagh & Molla, 2004). Besides, interpersonal influence, namely recommendations by bank's personal will also appear to play a major role in adoption decisions. Thus, social reference group would have an influence on consumer innovative behaviour towards Internet banking.

Some studies have also introduced prior technology experience as an additional variable affecting consumers' adoption of Internet banking (DeLone, 1988). Fisher (2000) extended this idea by suggesting that the most important factor that affects the adoption rate of Internet banking is consumers' attitude towards

technology itself. Implying that if consumers get more experience with Internet, they will be more likely to adopt Internet banking. Besides, the length of Internet experience also has an influence on Internet banking usage.

The role of banking institutions would also stand in the way of affecting consumer adoption of Internet banking. In other words, bank plays an important role in pulling customers towards Internet banking. Customers can be influenced by the promotion activities launch by the bank and therefore willing to try their new online services. Studies have also suggested that there is a correlation between Internet banking advertisements made through variety of media and the adoption rate of Internet banking (Wahad et al., 2005). In addition, banks willingness in offering specific value added service and additional benefits which are not provided through bricks and mortar branches can also help to reduce the customers' reluctance to change. Therefore, active role from banks is expected to facilitate innovative online banking behaviour of consumer.

Figure 1. A Model of Internet Banking Adoption Based on the Summary of Literature Review



3. RESEARCH METHODOLOGY AND RESULTS

The study was carried out by using the survey approach. The survey instrument was a four-page online questionnaire, including a cover page to explain the research objectives. The questionnaire was posted on <http://www.surveymonkey.com/> and email invitation was sent in early April 2006. Respondents were required to click on the link and they will be taken directly to the first page of the survey.

The study was confined to staff in Taylor's Business School, Subang Jaya, Selangor. The study utilized the convenience sampling method to obtain the target respondents most conveniently available. Although the captive sample may be unrepresentative, it helps to obtain adequate number of completed questionnaires quickly and economically. Besides, convenience samples are also best utilized for this pilot study where additional research will subsequently be conducted with probability sample (Zikmund, 2000).

After the follow-up round, a total of 54 questionnaires were received of which 51 were used in the data analysis. The analyses of the collected data were performed using the statistical package called Statistical Package for Social Science (SPSS) Base for Windows Version 11.5. The raw data was entered into SPSS package with necessary questions coded accordingly.

3.1 Characteristics of the Respondents

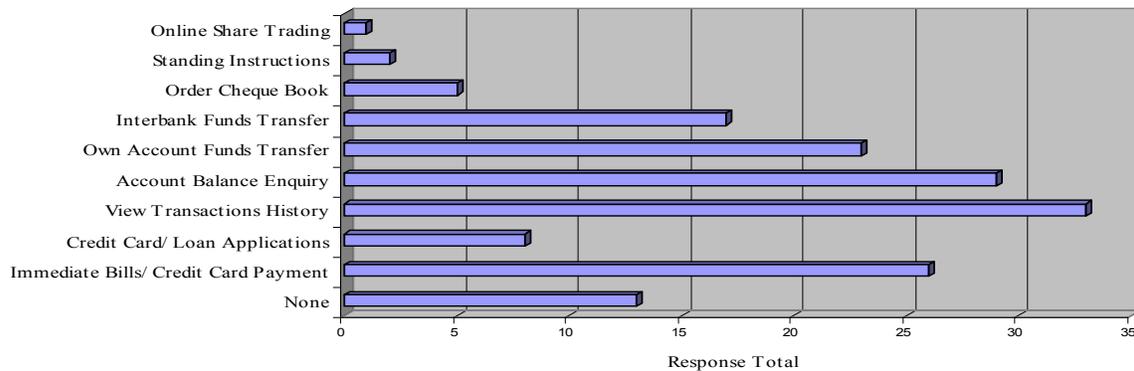
Based on the data collected, a demographic profile of the respondents was constructed as shown in Table 1. As illustrated in Table 1, about 69% of the respondents are female and 43% within the age of 30-40 years old. Majority of the respondents were academician and have access to Internet banking several times a month.

Table 1. Profile of Respondents

Demographic Characteristics	Frequency	Percentage
Gender		
Male	16	31.4
Female	35	68.6
Age Group		
Below 30 years old	19	37.3
30-40 years old	22	43.1
41-50 years old	6	11.8
Above 50 years old	4	7.8
Occupational Status		
Managerial/ Executive	13	25.5
Administration	5	9.8
Academician	28	54.9
Other	5	9.8
Frequency of Internet Banking Usage		
Several Times a Week	7	13.7
Several Times a Month	18	35.4
Once a Month	7	13.7
Rarely	6	11.7
Never	13	25.5

Figure 2 shows the most frequently used Internet banking services of the respondents. 68.8 percent of the respondents use Internet banking to view transactions history, followed by 60.4 percent of them make account balance enquiry and 54.2 percent of the respondents access to the Internet banking to pay bills and credit card.

Figure 2. Frequently Used Internet Banking Services



3.2 Perceptions Toward Different Determinants

In this study, the perceptions of the respondents were examined. The items were introduced with the phrase “please rate your perceptions on the importance of a list of determinants that motivate your decision in adopting Internet banking”. A total of twenty-eight items that covered seven determinants was used in page two of the questionnaire.

Of these twenty-eight items, five items measured “web efficiency and content”; five items measured “simplification and ease of use”; three items measured “security, privacy and trust concerns”; four items measured “accessibility and convenience”; three items measured “reference group influence”; four items measured “prior technology experience” and four items measured “role of banking institutions”. Participants responded to all items on 5-point Likert scales ranging from a “1” (Not Important) to “5” (Very Important).

Running the data through SPSS using the option of descriptive statistics, the mean values of the items were identified. A summary result of the analysis is provided in table 2.

Table 2. Ranking of Perceptions on the Importance of Different Determinants Affecting Internet Banking Adoption

Rank	Determinants	Mean	Standard Deviation
1	Security, Privacy and Trust Concerns	4.8841	0.7949
2	Web Efficiency and Content	4.5362	2.7355
3	Accessibility and Convenience	4.5053	2.1718
4	Simplification and Ease of Use	4.3130	2.5002
5	Prior Technology Experience	3.6778	2.6252
6	Role of Banking Institutions	3.5778	3.4629
7	Reference Group Influence	3.0072	2.5253

The findings in table 2 indicate that the respondents considered “Security, Privacy and Trust Concerns” as the most important determinants in affecting their decision in adopting Internet banking. In addition, the respondents also had highly positive perception about the determinants such as “Web Efficiency and Content” and “Accessibility and Convenience” in motivating them conducting financial transactions online.

3.3 Internal Consistency Reliability Assessment

Cronbach’s coefficient alpha was used to test for the internal consistency reliability on each of the determinants. The alpha scores for each determinant are presented in Table 3.

Table 3. Reliability Coefficients for the Determinants

Determinants	No. of Items	Reliability Alpha	Cronbach	Results
Web Efficiency and Content	5	0.7878		Reliable and Consistent
Simplification and Ease of Use	5	0.7554		Reliable and Consistent
Security, Privacy and Trust Concerns	3	0.6583		Reliable and Consistent
Accessibility and Convenience	4	0.8530		Reliable and Consistent
Reference Group Influence	3	0.8377		Reliable and Consistent
Prior Technology Experience	4	0.7324		Reliable and Consistent
Role of Banking Institutions	4	0.8613		Reliable and Consistent

As shown in Table 3, the final alpha scores ranged from 0.6583 to 0.8613. Since the Cronbach’s alpha values above 0.6, therefore, the variables were sufficiently reliable and considered satisfactory for this research (Nunnally, 1978).

3.4 Regression Analysis

In order to investigate the relationships among the determinants and Internet banking adoption, a stepwise regression analysis was performed on all the seven determinants. In this procedure, the most significant contributor (determinants) to explain the variation of dependent variable (Internet banking adoption) will be entered into the equation and followed by the next significant one until the statistical significant value reaches the pre-set cut-off point. (Malhotra, 1999)

First, the relationships between the seven composite determinants (independent variables) and Internet banking adoption (dependent variable) were investigated as first-level effect. As reported in Table 4, “accessibility and convenience” was the only determinant that demonstrated a direct and significant impact upon Internet banking adoption.

The significant value is less than 0.05 shows that the regression model is significant. The adjusted R square value of 0.082 indicates that “accessibility and convenience” was able to explain about 8.2 percent of the variation in the dependent variable, i.e. “adoption of Internet banking”. From the coefficient value, it suggests that this determinant was positively correlated with the dependent variable.

Table 4. Regression Results- First Level Relationships

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.322(a)	.104	.082	.72670

a Predictors: (Constant), CONVI

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.753	.951		1.844	.072
	CONV1	.438	.201	.322	2.178	.035

a Dependent Variable: ADOPTION

While the remaining six determinants did not have a significant direct impact on Internet banking adoption, they could have a strong relationship with the primary determinant, i.e. “accessibility and convenience” and thereby indirectly affecting consumers’ decision in adopting Internet banking. Accordingly, the next task was the identification of second-level effect. Successive regression analysis utilized the primary determinant as the dependent variable and the six remaining determinants as independent variables.

As shown in table 5, “simplification and ease of use”, “prior technology experience” and “security, privacy and trust concerns” were found to be significantly related to “accessibility and convenience”. The significant value is less than 0.05, thus, the regression model is significant.

In step 1, the “simplification and ease of use” explains about 34.4 percent of the variation in the dependent variable. This is indicated by the adjusted R square value of 0.344. From the coefficient value, it also suggests that these two determinants were highly positively correlated. In step 2, which is the next most significant to explain the second-level relationships, showed that “prior technology experience” explains about 7.7 percent (0.421-0.344) in variations of “accessibility and convenience”. In step 3, “security, privacy and trust concerns” was able to explain about 5.8 percent (0.479-0.421) of the variation in the dependent variable.

Table 5. Regression Results- Second Level Relationships

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599(a)	.359	.344	.44638
2	.670(b)	.448	.421	.41930
3	.718(c)	.516	.479	.39779

a Predictors: (Constant), EASE1,

b Predictors: (Constant), EASE1, TECH1

c Predictors: (Constant), EASE1, TECH1, SECURE1

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.533	.623		2.461	.018
	EASE1	.654	.136	.599	4.795	.000
2	(Constant)	1.080	.611		1.767	.085
	EASE1	.542	.136	.496	3.997	.000
	TECH1	.240	.095	.316	2.543	.015
3	(Constant)	-.182	.793		-.230	.819
	EASE1	.443	.136	.405	3.265	.002
	TECH1	.212	.091	.278	2.339	.025
	SECURE1	.376	.161	.282	2.333	.025

a Dependent Variable: CONV1

The last three determinants, “role of banking institutions”, “web efficiency and content”, and “reference group influence” were not significant in any of the first or second level regression. Successive regression using each of the second level determinants, i.e. “simplification and ease of use”, and “security, privacy and

trust concerns” and “prior technology experience” as the dependent variable and the last three determinants as the independent variable was completed next.

As detailed in Table 6a, “web efficiency and content” and “role of banking institutions” were found to be significantly related to “simplification and ease of use”. In addition, table 6b shown that “web efficiency and content” was also exhibited significant positive correlations with “security, privacy and trust concerns”. In table 6c, “role of banking institutions” was found to be significantly related to “prior technology experience”. Thus, these two determinants, “web efficiency and content” and “role of banking institutions” were said to be in the third-level effects.

Table 6a. Regression Results- Third Level Relationships

Model		Coefficients ^a				T	Sig.
		Unstandardized Coefficients		Standardized Coefficients	Beta		
		B	Std. Error				
1	(Constant)	1.894	.457			4.139	.000
	WEB	.529	.098	.643		5.373	.000
2	(Constant)	.996	.457			2.181	.035
	WEB	.537	.085	.653		6.324	.000
	ROLE	.208	.053	.402		3.891	.000

a Dependent Variable: EASE1

Table 6b. Regression Results- Third Level Relationships

Model		Coefficients ^a				T	Sig.
		Unstandardized Coefficients		Standardized Coefficients	Beta		
		B	Std. Error				
1	(Constant)	3.223	.386			8.354	.000
	WEB	.111	.053	.272		2.078	.044

a Dependent Variable: SECURE1

Table 6c. Regression Results- Third Level Relationships

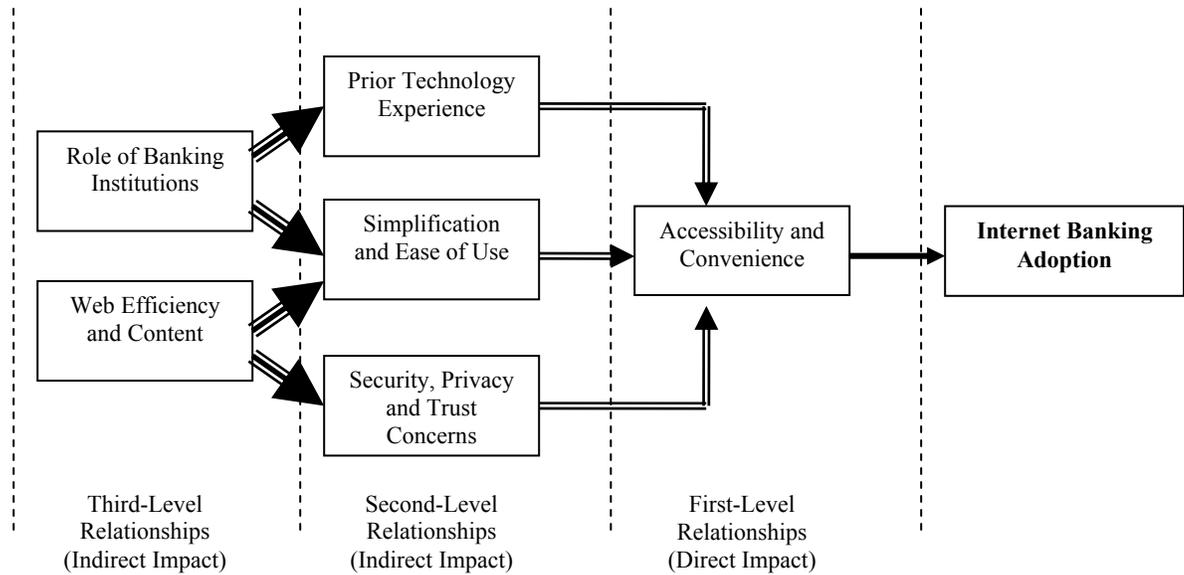
Model		Coefficients ^a				t	Sig.
		Unstandardized Coefficients		Standardized Coefficients	Beta		
		B	Std. Error				
1	(Constant)	2.648	.355			7.466	.000
	ROLE	.269	.088	.432		3.063	.004

a Dependent Variable: TECH1

4. MODEL DEVELOPMENT AND DISCUSSION

Diagramming the significant effects discovered in the regression analysis yielded a basic structure of relationships among the determinants and Internet banking adoption. The determinants of Internet banking adoption were formed in Figure 3.

Figure 3. A Model of Internet Banking Adoption Based on the Basic Structure of Relationships Among the Determinants



The model suggests that the most important attribute in encouraging the use of Internet banking was related to its “accessibility and convenience”. Internet banking users indicated that conducting banking transactions online providing them a convenient way to manage their finances, greater control over their finances as well as savings and freedom of time and effort. These factors were the major reasons contributing to their adoption of Internet banking in the first place.

Simplification and ease of use of the Internet banking services have emerged as the second level effect in influencing on the Internet banking usage. An easy-remember URL, easy follow instructions and navigation process in the website will definitely increase the level of convenience in conducting Internet banking transactions. Hence, there is a very high demand for banks to design their Internet banking websites reasonably simple and easy to navigate in order to increase the adoption rate of Internet banking.

Internet banking usage also appears to be influenced indirectly by security, privacy and trust concerns from the point of view of the consumers. The implication for practitioners is that to increase the adoption rate of Internet banking, it is a need to address the perception of risk and build the confidence of customers in Internet use in general and Internet banking in particular. The fear of losing their hard-earned savings makes it difficult for banks to increase consumers’ Internet banking activation levels. To address this issue, this study suggests that in order to raise customers’ confidence and awareness of Internet banking, banking institutions need to offer them a chance to test use the system themselves. Thus, consumers will feel more comfortable with Internet banking and are more likely to adopt it.

The second level relationships also indicate that consumers appear to make their Internet banking decision based on their prior technology experiences. The length of Internet experience, consumers’ willingness to adopt technology enhancement and attitude towards technology itself will indirectly impact on their decision in using Internet as their financial channel. This is consistent with Roger’s suggestion that compatibility of an innovation with prior experience may lead to greater acceptability of a new product.

In the third level relationships, the efficiency and content of the websites play an important role in affecting consumers’ perception on the security and ease of use of the Internet banking. This finding shows that any interruption of the online services, longer page-loading times and inaccurate website’s information are the constraints affecting the perceived trust among consumers and therefore decrease their Internet banking usage. Hence, banks need to make sure their Internet server are functioning well with higher bandwidth in order to avoid any delay in responding to the request of the customers.

The model also indicates that the promotional efforts on the part of banking institutions are important to ensure the Internet banking patronage. Additional benefits and more value-added services for Internet users are found to be effective in influencing the consumers’ prior technology experiences and ease of use of the website. These will therefore affecting their decisions in adopting Internet banking.

It is surprising that reference group influence appears to have no impact in affecting the Internet banking adoption among the respondents. The study explains this with the fact that reference group such as friends and banking personal as well as external influence in the form of peer pressure do not appear to play a

major role in adoption process. This is because customers conduct Internet banking based on their own perception and not influenced by their peers.

5. SUMMARY AND CONCLUSIONS

This paper evaluates factors that are significant in determining the adoption rate of Internet banking among Malaysian consumers. Specifically, it seeks to analyse the relationships among the determinants in order to examine which factors have a direct/ indirect impact on Internet banking adoption.

In terms of perceptions towards different determinants, the results show that the respondents are mainly concerned with security, privacy and trust in conducting Internet banking. These are all reflected in the ranking on the importance of determinants affecting the Internet banking adoption in the study. By using regression analysis, the study shows that accessibility and convenience contribute significantly in motivating consumers to use Internet banking in conducting the financial transactions. The results are in line with findings reported in previous studies mentioned in the literature review.

This paper makes several theoretical contributions. First, the paper provides insight into key determinants of Internet banking adoption and explains how the determinants influence one another. The findings also point out the need for banking institutions to consider closely the extent of Internet usage among the consumers. The paper shows that most of the consumers using Internet banking as an information channel to gather financial information rather than transactional channel to execute banking transactions. Aimed with this understanding, banking institutions must develop strategies to help in increasing the usage of Internet banking so that the consumers will use the Internet as their first choice to conduct their financial transactions.

There are some limitations that need to be considered in the interpretation of the results. The proposed model is not intended to be fully comprehensive or universally applicable, but rather it should be viewed as one of the insights into the determinants of Internet banking adoption. As pointed out earlier, this study only covered respondents in Taylor's Business School, Subang Jaya, Selangor. Thus, the results of this study are hardly to be generalised as they do not represent the whole population of Internet banking users in Malaysia. Future research involving more organizations and larger population are necessary to ensure generalization based on the findings.

REFERENCES

- Ahmad, N., and Haron, S., 2001. E-Banking as a Strategy Towards Meeting Globalization. *The International Conference on Management Education*, Ho Chi Min City, Vietnam.
- Burnham, B., 1996. The Internet's Impact on Retail Banking. *Booz-Allen Hamilton Third Quarter*. (<http://www.strategy-business.com/briefs/96301>)
- DeLone, W.H., 1988. Determinants of Success for Computer Usage in Small Business. *MIS Quarterly*, Vol. 12, No. 1, pp. 51-61.
- Fishbein, M. and Ajzen, I., 1975. *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research*. Addison-Wesley, Reading, MA.
- Fisher, A. 2000. Internet Buyers Are Not What You Think. *Fortune*, Vol. 141, No.1, pp. 190-191.
- Guru, B.K. et al, 2000. Electronic Banking in Malaysia: A Note on Evolution of Services and Consumer Reactions. *Journal of Internet Banking and Commerce*, Vol. 5, No. 1.
- Kurtas, A., 2000. *Analytical Study of Investment Opportunities in Direct and Internet Banking (Translated)*. Arab Banks Union Magazine, pp 35.
- Malhotra, N.K., 1999. *Marketing Research: An Applied Orientation*, Prentice Hall, New Jersey, Upper Saddle River.
- Nunnally, J.C., 1978. *Psychometric Theory*, McGraw Hill, New York.
- Polatoglu, V. and Ekin, S., 2001. An Empirical Investigation of the Turkish Consumers' Acceptance of Internet Banking Services. *The International Journal of Bank Marketing*, Vol. 19, No. 4/5.
- Rogers, E.M., 1995. *Diffusion of Innovations*. 4th Edition, New York, Free Press.
- Sabbagh A. and Molla, A., 2004. Adoption and Use of Internet Banking in the Sultanate of Oman: An Exploratory Study. *Journal of Internet Banking and Commerce*, Vol. 9, No. 2.
- Santos, J., 2003. E-Service Quality: A Model of Virtual Service Quality Dimensions. *Managing Service Quality*, Vol. 13, No. 3, pp. 233-246.

- Singh, B. and Malhotra, P., 2004. Adoption of Internet Banking: An Empirical Investigation of Indian Banking Sector. *Journal of Internet Banking and Commerce*, Vol. 9, No. 2.
- Sohail, M.S. and Shanmugham, B., 2003. E-Banking and Customer Preferences in Malaysia: An Empirical Investigation. *Information Sciences*, Vol. 150, pp. 207-217.
- Suganthi, R., Balachandher, K.G. and Balachandran, S., 2001. Internet Banking Patronage: An Empirical Investigation of Malaysia. *Journal of Internet Banking and Commerce*, Vol. 6, No. 1.
- Wahad et al., 2005. Internet Banking: Factors and Levels of Consumers' Knowledge. *Proceedings of International Conference on E-Commerce*. Subang Jaya, Malaysia, pp. 329-334.
- Zikmund, W.G., 2000. *Business Research Methods*, Orlando Florida: The Dryden Press.