

# Internet Banking Adoption in Thailand: A Delphi Study

**Boonyarat Samphanwattanachai**

Department of Marketing, School of Management  
Assumption University, Suvarnabhumi Campus  
17<sup>th</sup> Floor, CL Building, Bangna-Trad Km. 26, Bangsaothong, Samutprakarn 10540  
Tel: 0-2723-2173, E-mail: boonyaratSmp@au.edu

## **Abstract**

*Nowadays, the Internet is playing a major role for the world of business including the banking industry. Technology has become an important part of corporations. Banks have been using the Internet as one of their distribution channels because Internet Banking services benefit both the banks and their customers. It has become the most profitable distribution channel of the banks because it can help banks to save costs. It is convenient for the customers to execute their bank transactions or contact their banks faster, anytime and anywhere. However, adoption of Internet Banking by the customers and adoption of Internet Banking by the banks are still the major areas for exploration and study especially in Thailand. Thailand is chosen for conducting the survey because Internet Banking service in Thailand is still at an early stage and there are only a small number of Internet Banking users in Thailand. There are a few researches studied about Internet Banking adoption in Thailand. Most of them studied from the customers' view, not from the experts' view. Therefore, this paper studies the experts' opinion about Internet Banking adoption by the customers and the banks in Thailand, including the future of retail banking distribution channels in Thailand by using Delphi Study. The experts came from Thai*

*commercial banks and university lecturers of financing and marketing fields. The objective of this paper is to find out these experts' opinions about Internet Banking adoption in Thailand. The main findings show that bank's objective and goal, and bank's information technology infrastructure are the main factors that affect Internet Banking adoption by banks. The number of Internet users, trust, and security are the main factors that affect Internet Banking adoption by the customers. They slightly agreed that Internet Banking is an important retail banking distribution channel in Thailand. However, they did not think that Internet Banking can replace the traditional retail distribution channels. In next 5 years, they thought that Bank Branch, ATM, Telephone, and Internet will be used most respectively for retail banking distribution channels in Thailand. In next 10 years, Bank Branch, ATM, Telephone, WAP Technology, and Internet will be used most respectively for retail banking distribution channels in Thailand. Research findings and discussion including conclusion are presented in the last section of this paper.*

## **1. Introduction**

The Internet is widely used as a new media for the interactive communications and is well used in Thailand's banking industry. Nowadays, the banking industry

around the world has used interactive advertising as a major distribution channel in order to sell products, provide services, contact customers and create a customer relationship. For example, *Interactive TV* in Brazil named '*Banco Itau*'. It was Brazil's second largest privately held bank. They launched an interactive financial service offered in partnership with the satellite TV provider DirecTV. The other examples are *mBanking* service that provides the service via mobile phone, and the *Internet* that is most widely used in banking Industry.

Internet Banking services may prove to be the automated teller machine (ATM) of the 21<sup>st</sup> century. Like the ATM, Internet Banking services give users 24/7 access to their account, but it goes a step further by allowing the customers to conduct more complicated transactions e.g. bill payment (Surmacz, 2003). Internet Banking services that are available vary from bank to bank. Internet Banking services allow the customers to check bank account balances, execute fund transfers between accounts, and order electronic bill payments. Internet Banking services offer ease of transaction via the Internet with more sophisticated systems such as applying for loans, downloading information, trading stocks, checking slips or traditional systems such as ATM providers and machine services in the banks (Rojanachaichanin, 2001). Thailand's banking industry especially the major commercial banks have their own Internet Banking websites in order to let the customers execute their bank transactions via the Internet. For example, Siam Commercial Bank's name is <http://www.scbeasy.com>, Thai Farmer Bank's name is <http://www.kasikornbank.com> and Thai Military Bank's name is <http://www.tmbdirect.com> etc. Many banks have invested in the Internet because it is a new channel in contacting customers, the customers can interact with the bank with

little time required and it is convenient for them. In return, the banks can gain benefit from Internet Banking service in terms of reducing the operating and fixed costs. For example, the cost of fund transfer via counter service in banks is about 30 Baht per transaction; the cost of fund transfer via Automatic Teller Machine (ATM) is about 9.5 Baht per transaction; the cost of fund transfer via Telephone Banking is about 1 Baht per transaction while the cost of fund transfer via Internet is only 0.25-0.50 Baht per transaction (Tangkitvanich, 1999).

Therefore, studying Internet Banking Adoption in Thailand is still very important and interesting especially from the experts' views. The objective of this paper is to investigate the experts' opinion about Internet Banking Adoption in Thailand by both the customers and the banks. Research Methodology of this paper is discussed in the next section.

## 2. Research Methodology

This paper uses the Delphi Study to find out the experts' opinion towards Internet Banking Adoption in Thailand. Delphi is named after the Greek oracle at Delphi to whom the Greeks visited for information about their future. The Delphi method is the most well-known qualitative, structured and indirect direction futures method in use today. The Delphi study is a qualitative, long-range forecasting technique that elicits, refines and draws upon the collective opinion and expertise of a panel of experts (Lang, 1994). It has been extensively used in planning, policy analysis and long-range forecasting in both the public and private sectors. It is one of the most popular forecasting techniques for technological and industry-wide forecasting. It is estimated that 90% of technological forecasts and studies are based on the Delphi (Gupta & Clarke, 1996). The primary advantage for the Delphi

is its unique strength as a planning, forecasting and decision-making tool. It relies on a structured, indirect approach to quickly and efficiently elicit responses relating to group learning. Forecasting from the experts also brings knowledge, authority and insight to the problem whilst promoting learning among panel members. It can fascinate a wide range of interrelated variables and multidimensional features common to most complex problems, both of which are necessary elements for detailed scientific analysis (Gupta et al., 1996).

The Delphi study is very useful for this paper because Internet Banking services in Thailand are still at an early stage and there are few secondary data and researches about it at present. This method can help us to know and gain opinions from a group of the experts about Internet Banking services in Thailand, and forecast its situation in the future because it is a popular method for technology and industry-wide forecasting. There are four key features which may be regarded as necessary for defining a procedure as 'Delphi'. These are anonymity, iteration, controlled feedback and the statistical aggregation of group response (Rowe & Wright, 1999). The Delphi questionnaire of this paper was based on the Delphi questionnaire of Bradley & Stewart, 2003. There were fifteen questions in this questionnaire excluding the questions in the Panelist Classification. These fifteen questions covered four areas: the introduction of Internet Banking services in Thailand, the importance and the future of Internet Banking services in Thailand, the advantages of Internet Banking services and Internet Banking Adoption in Thailand. For the Panelist Classification part, seven questions were asked about demographics, confidence level and the expertise level of the panelists. All the questions in this questionnaire were a mixture of Likert scale, rank order, multiple choice and open-ended

questions. For the Panelists Classification part, self-rating questions pertaining to confidence level and expertise level were asked in order to increase the reliability of this method and reduce sampling respondent bias. Self-rating is used in the Delphi in order to obtain the most reliable consensus of opinion of a group of experts (Tichy, 2004).

There is no fixed rule for the number of experts required to form the Delphi panel, nor is there consensus on the knowledge or expertise required for one to be included as a Delphi member. The size of Delphi panels reported in previous studies covered a wide range from tens to hundreds. The choice depends on the nature, the scope and the importance of the study. However, 15-20 members were the minimum number of panelists needed (Kaynak, Bloom, & Leibold, 1994). Bradley et al. (2003) found that there were no set numbers of panelists required that provided that there is a sufficient number to facilitate the combining of judgments. From the previous papers, the number of experts required is flexible but the minimum number should be 15-20 members. Therefore, the number of experts required in this paper should be 15-20 members.

There were 18 panelists agreed to participate in this Delphi study. 8 panelists were bank executives and 10 panelists were academicians. The members of this Delphi panel came from the group of bank executives/managers who were responsible for Internet Banking services, and the university lecturers who taught in financing, accounting and marketing subjects at the Business and Management School of Assumption University, Thailand.

The Delphi study was conducted in three rounds. The third round was the last round because the number of panelists who returned the questionnaires was small and this might affect the results. Therefore, three

rounds were the maximum. The questionnaires were sent by electronic mail or the panelists could fill them through the website due to time and cost implications. The panelists could complete the questionnaire by going to the website <http://www40.brinkster.com/bankingsurveys> or using the attached file that was sent to them through electronic mail. The response rate of the first round was 87.50% (14 panelists returned the questionnaires), the second round was 85.71% (12 panelists returned the questionnaires), and the response rate of the third round dropped to 66.67% (8 panelists returned the questionnaires).

### 3. Research Findings and Discussion

The experts showed some satisfaction with the introduction of Internet Banking services in Thailand in terms of customer awareness (62.50%), the development of Internet Banking services from the past to the present (75.00%), the current number of Internet Banking users (62.50%), and the growth of the number of Internet Banking users from the past 5 years (75.00%). There was no significant evidence of the experts' satisfaction in terms of techniques or strategies that banks employ to introduce and influence customers to use Internet Banking services in Thailand.

In the next five years, the three features of Internet Banking services that will be used most are inquiries about outstanding balances, fund transfer between accounts within the same bank, and transfer payment for public utilities respectively. These are as same as the three features that will also be used most in the next ten years. These are the basic features that every customer executes with his bank account. In the next five years, bank branches, ATMs, and telephone banking will be the retail banking channels that will be used most respectively, and

Internet Banking service was ranked at No. 4. In the next ten years, bank branches, ATMs, telephone banking, and WAP technology (mobile phone) will be the retail banking channels that will be used most respectively, and Internet Banking service was ranked at No. 5. This can be supported by the findings which found that the experts thought that the Internet Banking service is quite important towards the future of retail banking in Thailand but that it cannot replace the other distributional channels of retail banking. Moreover, from the findings, WAP technology (mobile phone) is the channel that will probably grow well in the future as it was ranked at No. 4 in next ten years. The main advantages of Internet Banking service for a bank were to reduce of transaction costs, to increase the number of customers, to search for new innovative services, to increase competitive advantage, and to have a better image respectively. The banks that want to provide efficient Internet Banking services should have a good information technology infrastructure and clear objectives and goals. Moreover, laws and regulations, and the overall market situation also affect Internet Banking adoption of the bank.

There was no significant agreement from the experts that Internet Banking services offer the same advantages as established retail banks and new entrants to the banking industry in Thailand. But from the mean and median scores, many experts disagreed that Internet Banking services offer the same advantages as established retail banks and new entrants to the banking industry. Internet Banking services can be one factor that influence a customer to open a bank account with this bank.

The experts thought that Internet Banking services are convenient and can help customers save costs and time. The experts also thought that the main factors

that affect customer's adoption of Internet Banking in Thailand are the number of Internet users, customer's trust, Internet Banking services quality, security, costs and fees, variety of products/services, and a bank's image respectively. The experts also wanted Internet Banking services to improve security, advertise about Internet Banking services more, provide more variety of products/services, improve the ease of use of Internet Banking services, improve accessibility, should not charge any fees or only charge reasonable fees, improve the website's design, and have a call centre or staff directly responsible for Internet Banking services.

To increase the number of Internet Banking users in Thailand, there are many factors to consider. From the findings, the number of Internet users is quite an important factor because there are only a small number of Internet users in Thailand. But the important thing for banks at the present is to influence Internet users in Thailand to use Internet Banking services. They have to improve the Internet Banking process and pay more attention in Internet Banking services. The question of fees is also important. The banks should not charge any fees for Internet Banking services or only charge at lower rates than other distributional channels. This could help banks keep existing Internet Banking users and influence other customers to use Internet Banking services. But they have to advertise Internet Banking services better than at present and have clear and outstanding objectives and goals for providing Internet Banking services.

#### **4. Conclusion**

Internet is now an important device in the modern businesses including banking sector. It has become one of retail banking distributional channel that the banks and the

customers can use it to communicate and interact each other. There are many commercial banks in Thailand have provided Internet Banking services to Thai customers. But Internet Banking in Thailand is still an early stage and there is no research studied about Internet Banking Adoption in Thailand from the experts' view. This paper uses the Delphi Study to investigate the experts' opinion about Internet Banking Adoption in Thailand. The members of panelists came from both bank executives and the academicians.

The main findings are Internet Banking is quite important distribution channel of retail banking in Thailand but it cannot replace the other distribution channels. Moreover, the Internet Banking users will use the following basic Internet Banking features most in the future: inquiries about outstanding balances, fund transfer between accounts within the same bank, and transfer payment for public utilities respectively. The number of Internet users in Thailand is the most important factor that affect the number of Internet Banking users in Thailand followed by customer's trust, Internet Banking services quality, security, costs and fees, variety of products/services, and a bank's image respectively. The banks should have a good information technology infrastructure and clear objectives and goals to provide Internet Banking services to the customers.

This paper suggests that at the present, the banks should influence the current Internet users in Thailand to use Internet Banking first. Simultaneously, they must improve Internet Banking process and put their concentration on Internet Banking services more. They also should charge the fees of Internet Banking services at reasonable rate or lower than other distribution channels in order to keep the existing Internet Banking users and increase

the number of new Internet Banking users. The future research might focus on customer's trust towards Internet Banking in Thailand. Because from the findings, it was the second important factor that affects customer's adoption of Internet Banking in Thailand.

## References

- Bradley, L., & Stewart, K. (2003). "A delphi study of Internet banking". *Marketing Intelligence & Planning*, 21(5), 272-281.
- Gupta, U. G., & Clarke, R. E. (1996). "Theory and applications of the Delphi technique: a bibliography" (1975-1994). *Technological Forecasting and Social Change*, 53(2), 185-211.
- Kaynak, E., Bloom, J., & Leibold, M. (1994). "Using the Delphi technique to predict future tourism potential". *Marketing Intelligence & Planning*, 12(7), 18-29.
- Lang, T. (1994). *An overview of four futures methodologies*. Retrieved April 6, 2004, from <http://www.soc.hawaii.edu/future/j7/LANG.html>
- Rojanachaichanin, N. (2001). *Electronic banking*. Retrieved June 27, 2005, from <http://www.ethailand.com/index.php?id=1628>
- Rowe, G., & Wright, G. (1999). "The Delphi technique as a forecasting tool: issue and analysis". *International Journal of Forecasting*, 15(4), 353-375.
- Surmacz, J. (2003). *Easy money*. Retrieved June 27, 2005, from <http://www2.cio.com/metrics/2003/metric537.html>
- Swan, J. E., & Combs, L. J. (1976). "Product performance and consumer satisfaction: a new concept". *Journal of Marketing*, 40, 25-33.
- Tangkitvanich, S. (1999). *The forecast of diffusion of Internet usage in Thailand in 2000-2005*. Retrieved April 1, 2003, from [http://www.info.tdri.or.th/reports/somkiat/st\\_paper.html](http://www.info.tdri.or.th/reports/somkiat/st_paper.html)
- Tichy, G. (2004). "The over-optimism among experts in assessment and foresight". *Technological Forecasting & Social Change*, 71(4), 341-3