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## **INTERNET BANKING: FROM THE** PERSPECTIVE OF MALAYSIAN BANKERS

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#### **ABSTRACT**

The electronic revolution in the Malaysian banking sector is now more noticeable as banks are trying to keep abreast with information, communication and technology (ICT). Internet banking is a new delivery channel that offers a one-stop service and information unit to gain competitive advantage in the banking sector. While it promises enormous benefits both to consumers and banks, what do bank managers, as providers perceive internet banking? This article seeks to examine the perceptions of bank managers on internet banking with respect to strategic, operational, customer-related and technological issues. A total of 54 responses were received from questionnaires distributed to bank managers in the Northern region of Malaysia. Interestingly, they provide conflicting views. While internet banking enhances customer service, it is perceived to have reduced human resource and banker-customer relationships. Hence, this finding suggests that the management should continue to offer personalised services to its customers. Internet banking should be used as an informational and transactional tool to complement and enhance banking operations.

**Keywords**: Internet Banking; Strategic; Operational; Customer; Technology; Malaysian Banks.

### **ABSTRAK**

Revolusi elektronik dalam sektor perbankan Malaysia lebih menyerlah masa kini sejajar dengan usaha bank menguasai maklumat, komunikasi dan teknologi (ICT). Perbankan internet merupakan saluran pengedaran baru yang menawarkan khidmat-sehenti dan unit maklumat bagi memperoleh kelebihan persaingan dalam sektor perbankan. Walaupun ia menjanjikan faedah yang amat banyak kepada pelanggan dan bank, tetapi, apakah tanggapan pengurus bank sebagai pembekal terhadap perbankan internet? Artikel ini menyelidiki persepsi pengurus bank terhadap perbankan internet dengan tumpuan kepada isu strategik, operasional, pelanggan dan teknologi. Sebanyak 54 sambutan diterima daripada soal selidik yang diedar kepada pengurus bank di Utara Malaysia. Menariknya, mereka memberikan pandangan yang berbeza. Walaupun perbankan internet meningkatkan khidmat kepada pelanggan, sebaliknya ia dilihat mengurangkan sumber manusia dan hubungan bankpelanggan. Oleh itu, dapatan kajian mencadangkan kepada pengurusan bank untuk terus menawarkan khidmat peribadi kepada pelanggannya. Perbankan internet mestilah digunakan sebagai alat maklumat dan transaksi bagi melengkapi dan meningkatkan operasi perbankan.

### INTRODUCTION

The electronic revolution in Malaysian banking sector is now more noticeable as banks are trying to keep abreast with information, communication and technology (ICT). With the rapid diffusion of the internet, domestic banking sectors need to be prepared for greater competition and challenges arising from liberalisation and changes in consumer banking behaviour and preference. Indeed, the emergence of internet banking has prompted many banks to rethink their strategic plans especially their information technology strategies to stay competitive. This is because internet banking is seen to be transforming fundamental aspects of banking, the environment in which banking services are delivered, the elements of banking business, the product and services delivered by banking institutions, and the systems and technology used by banking institutions.

While many studies in the past cover internet banking from the customers' perspectives, very few papers addressed the managers' perspectives. What do the managers, as providers, perceive internet banking? Thus, his paper attempts to investigate internet banking from the managers' perspective; an area which is not widely explored. In fact, there is paucity in research concerning perceptions of bank managers on internet banking issues, pertaining to the banks' strategic, operational, customer and technological issues.

Therefore, this study aims to fill this gap in the literature in addition to providing perceptions from bank managers operating in the Northern region of Malaysia covering Kedah, Perlis and Pulau Pinang. Furthermore, as noted by Nehmzow (1997) and Seitz and Stickel (1998), Internet is now considered as a strategic weapon and will revolutionise the way banks operate, deliver and compete against each other.

Thus, the objectives of this article are:

- to identify the perceptions of bank managers on strategic issues in internet banking services in Malaysia
- to identify the perceptions of bank managers on operational issues in internet banking services in Malaysia
- to identify the perceptions of bank managers on customer-related issues in internet banking services in Malaysia
- to identify the perceptions of bank managers on technological issues in internet banking services in Malaysia

This paper is organised as follows. Section two reviews the development of E-Banking in Malaysia. Section three describes the research methodology followed by analysis of results in section four. Section five concludes the paper.

# DEVELOPMENT OF E-BANKING IN THE MALAYSIAN BANKING SECTOR

The revolutionary process of E-banking in Malaysia was due to the gradual deregulation of the financial landscape and the computerisation of financial institutions in the 1970s. The Automated Teller Machine (ATM) was the first E-banking product introduced in the early 1980s. It serves customers with the facilities to conduct simple transactions such as checking balance, withdrawing, depositing and transferring money to a third party. Overall, it helps customers to overcome time and geographical constraints since ATM networks are easily found in various locations and its operating hours are extended beyond office hours (Shanmugam & Vijayan, 2003).

Technological advancements in telecommunication that took place in the early 1990s led to the introduction of Telebanking. It is a form of remote or virtual banking that allows bank customers to perform banking transactions via telecommunication devices (Ahmad, Ahmad, & Haron, 2001). As an alternative to ATM, it provides most of the ATM functions except for the deposit and withdrawal of cash.

The introduction of PC banking adds to the list of E-banking products. However, it is widely used by corporate customers rather than retail customers. PC banking virtually established bank branches at the customer's premises via the usage of a proprietary desktop electronic package and allows customers to conduct banking transactions by subscribing to and dialing into the bank's intranet facilities (Suganthi, Balachander & Balachandran, 2001). Another alternative E-banking

product is the Automated Self-banking Center (ASC). It serves as an information counter, ATM, telebanking and banking booth facilities for 24 hours of service.

The most eminent innovation in the Malaysian banking sector was the introduction of internet banking. It is not only part of the evolution in the Malaysian banking industry but also the whole global banking landscape. Internet banking provides an alternative to the traditional distribution channel for banks with its economical value. It is estimated that a single transaction through the internet costs only \$0.01 as compared to \$0.27 per ATM transaction, telephone banking costs about \$0.55 per transaction and branch banking transactions costs about \$1.07 per transaction (Booz-Allen & Hamilton, 1997 as cited in Stijn *et al.*, 2000).

### METHODOLOGY

The research framework for this study was adapted from Nath *et al.* (2001). Data for this study were collected using questionnaires. These questionnaires were mailed to bank managers in the Northern region of Malaysia, namely Kedah, Perlis and Pulau Pinang to test their understanding and perceptions of internet banking. The literature in this field were reviewed extensively in order to generate an initial list of questionnaire items. This study focused on the perceptions of bankers on strategic, operational, customer-related and technological issues on internet banking in Malaysia. Each question was worded so that it can be measured using a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree).

The sample consists of all bank managers of commercial and Islamic banks taken from a population of 238 bank branches. The list of branches was obtained from the respective bank's website as of October 2003. The sampling method used in this study is the clustered sampling technique where the number of bank managers selected depends on the number of bank branches in each state. This gives a total of 100 bank managers as respondents for this study.

The questionnaires were mailed to the bank managers along with a postage-paid return envelope and a cover letter explaining the purpose of the study. Telephone calls were made to ensure the respondents received the questionnaires and voluntarily agree to respond to the survey. They were requested to complete the questionnaires or forward it to an executive familiar with internet banking. The bank managers were chosen as the contact person because they would be cognisant of

the strategic value of internet banking, thus could provide reliable and valid feedback, and could also result in a higher response rate. Answers from each bank were analysed using descriptive analysis. The data obtained from the questionnaires were keyed into the SPSS version 12.0 program for analysis.

### ANALYSIS OF RESULTS

54 questionnaires were completed and returned. This gives a response rate of 54.00%. The following section describes the findings in detail from the analysis of the four issues related to internet banking, which are strategic, operational, customer-related and technological issues.

Table 1 shows the analysis of strategic issues pertaining to the implementation of internet banking in Malaysia.

**Table 1**Descriptive Statistical Analysis of Strategic Issues

Item	Mean	STD	SD	UD	SA	STA
First (S1)	2.4259	13	17	14	8	2
Only a fad.		24%	31.5%	25.9%	14.8%	3.7%
Second (S2)	3.9815	n/a	8	4	23	19
Essential for banks' survival.			14.8%	7.4%	42.6%	35.2%
Third (S3)	4.0185	n/a	9	2	22	21
Gives the impression of a cutting edge bank.			16.7%	3.7%	40.7%	38.9%
Fourth (S4)						
Mandatory to compete	4.2778	n/a	5	n/a	24	25
effectively in the near future.			9.3%		44.4%	46.3%
Fifth (S5)						
Banks not offering internet banking	3.7593	n/a	14	5	15	20
will lose customers to other banks.			25.9%	9.3%	27.8%	37%
Sixth (S6)	2.7778	8	22	6	10	8
Internet-only banks are a threat.		14.8%	40.7%	11.1%	18.5%	14.8%
Seventh (S7)	3.7222	2	8	6	25	13
Will lead to a decreased number		3.7%	14.8%	11.1%	46.3%	24.1%
of bricks-and-mortar banks.						
Eighth (S8)	0 1 101		1.0	0	10	-
Good to offer higher interest rates	3.1481	4	16	9	18	7
to Internet-only customers.		7.4%	29.6%	16.7%	33.3%	13.0%
Ninth (S9)	4.1852	n/a	n/a	3	38	13
Prefer customers to use internet				5.6%	70.4%	24.1%
banking.						
Tenth (S10)	2.8333	7	21	5	16	5
Only suitable for large banks.		13.0%	38.9%	9.3%	29.6%	9.3%

Legend:

STD = strongly disagree SA = somewhat agree SD = somewhat disagree STA = strongly agree UD = undecidedn/a = not applicable The analysis from the questionnaires reveals that 55.6% of the managers agreed that internet banking is not a fad and a mean score of 2.4259 for this item 2.4259, suggests that most managers perceive that internet banking is not a fad. 77.8% of the respondents perceived that internet banking is essential for bank's survival, while only 14.8% disagreed. The third item stated that internet banking gives the impression of a cutting edge bank and 79.6% of respondents agreed to this statement, while 16.7% disagreed. The mean score for third item is 4.0185, which strongly suggests that the managers agree that internet banking is an effective strategy for banks to gain a cutting edge over their competitors. This opinion is reinforced by the finding that 90.7% of respondents totally agreed that it is a mandatory to implement internet banking in order to compete effectively in the near future. This item scored the highest mean of 4.2778, which shows that most of the respondents gave a positive response to this issue.

Table 1 also reveals that 64.8% of respondents agreed that banks that do not offer internet banking would lose customers to other banks, 25.9% disagreed while 9.3% are undecided. 55.5% of the managers are opposed to the statement that internet only banks are a threat while 33.3% agreed. The seventh item shows that 70.4% of respondents agreed that internet banking would lead to a decreased number of bricksand-mortar banks in lieu with the perceptions of bank managers that 94.5% of them prefer their customers to use internet banking. The result implies that implementation of internet banking as a strategic weapon would likely diminish the existence of the brick-and-mortar banks. The eighth item stated that it is good to offer higher interest rates to internet-only customer 46.3% of respondents agreed while 37.0% disagreed. The remaining of 16.7% was undecided. Also, 51.9% disagreed on the view internet banking is only suitable for large banks. 38.9% agreed, while 9.3% were undecided. This implies that half of the respondents believe that small banks can and will compete with larger banks in offering internet banking.

Table 2 presents the analysis of operational issues pertaining to the implementation of internet banking in Malaysia.

On the item measuring whether the benefits of internet banking outweigh its costs, 87.1% believed that its benefits outweigh the associated costs. This finding is further reinforced by the fact that 81.5% of the managers believed internet banking allows the banks to increase their customer base. The mean score for this item is 4.0741 which shows respondents positively agreed to this statement. Also, 53.8% believed that internet banking helps improve customer service while 46.3%

disagreed. The Mean score of 4.7778 shows that this item has the highest mean score in the operational issues. This indicates that managers strongly perceive that internet banking contributes to bank's effort in increasing the quality of customer service as well as provide additional service to customers (96.3% agreed to this). In addition, 79.60% of the managers perceived that internet banking lowers the transaction costs since customers' accounts are less costly to maintain through internet banking (70.3% in agreement). 59.3% of the managers believed that the likelihood of attempted fraud increases with internet banking.

 Table 2

 Descriptive Statistical Analysis of Operational Issues

Item	Mean	STD	SD	UD	SA	STA
First (O1)	4.0741	n/a	4	3	32	15
Benefits outweigh the costs.			7.4%	5.6%	59.3%	27.8%
Second (O2)	4.0741	n/a	2	8	28	16
Allows banks to increase customer base.			3.7%	14.8%	51.9%	29.6%
Third (O3)	4.7778	2	23	n/a	1	28
Improves customer service.			3.7%	42.6%	1.9%	51.9%
Fourth (O4)	4.0000	n/a	5	6	27	16
Lowers transaction costs.			9.3%	11.1%	50.0%	29.6%
Fifth (O5)	4.4074	n/a	1	1	27	25
Offers opportunities to provide			1.9%	1.9%	50.0%	46.3%
additional services.						
Sixth (O6)	3.7407	n/a	14	2	22	16
Accounts are less costly to maintain.			25.9%	3.7%	40.7%	29.6%
Seventh (O7)	3.4440	1	13	8	25	7
Increases attempted fraud.		1.9%	24.1%	14.8%	46.3%	13.0%

Legend:

STD = strongly disagree SD = somewhat disagree UD = undecided SA = somewhat agree STA = strongly agree n/a = not applicable

Table 3 presents the analysis of customer-related issues pertaining to the implementation of internet banking in Malaysia.

Table 3 shows that 81.5% of the managers agreed that internet banking will significantly benefit their customers. However, 92.6% of the managers believed that internet banking would reduce the frequency of customer visits to a physical bank. The mean score for this item is the highest in the customer-related issues (4.4259). It shows that most of the managers agree that internet banking reduces contact between bankers and customers. This is a significant finding since 40.8% agreed that internet banking would reduce customer's loyalty and 66.7% of the managers believed that internet banking would reduce customer-banker relationships. Also, 57.4% of respondents disagreed with the

statement that internet banking would reduce the customer's trust in the bank. Only 9.3% were undecided while 33.4% agreed. The sixth item stated that the customer minds paying a monthly fee for internet banking and 51.9% agreed to this statement, while 29.6% disagreed and 18.5% were undecided. In addition, 90.8% totally agreed that access to accounts 24 hours a day is important to customers which has the mean score of 4.2222. Also, 87.0% of the managers viewed that internet banking security is a major concern of their customers. This item scored a mean of 4.2037, which was the third highest mean in the customer-related issues.

**Table 3**Descriptive Statistical Analysis of Customer-Related Issues

		SD	UD	SA	STA
4.1110	n/a	7	3	21	23
		13.0%	5.6%	38.9%	42.6%
4.4259	n/a	2	2	21	29
		3.7%	3.7%	38.9%	53.7%
3.0741	3	21	8	13	9
	5.6%	38.9%	14.8%	24.1%	16.7%
3.5000	4	10	4	27	9
	7.4%	18.5%	7.4%	50.0%	16.7%
2.7407	6	25	5	13	5
	11.1%	46.3%	9.3%	24.1%	9.3%
3.4259	n/a	16	10	17	11
		29.6%	18.5%	31.5%	20.4%
4.2222	n/a	2	3	30	19
		3.7%	5.6%	55.6%	35.2%
4.2037	n/a	5	2	24	23
		9.3%	3.7%	44.4%	42.6%
	3.0741 3.5000 2.7407 3.4259	3.0741 3 5.6% 3.5000 4 7.4% 2.7407 6 11.1% 3.4259 n/a	13.0% 1.4259 n/a 2 3.7% 3.0741 3 21 5.6% 38.9% 3.5000 4 10 7.4% 18.5% 2.7407 6 25 11.1% 46.3% 3.4259 n/a 16 29.6% 4.2222 n/a 2 3.7% 4.2037 n/a 5	13.0% 5.6% 14.4259 n/a 2 2 3.7% 3.7% 3.0741 3 21 8 5.6% 38.9% 14.8% 3.5000 4 10 4 7.4% 18.5% 7.4% 2.7407 6 25 5 11.1% 46.3% 9.3% 3.4259 n/a 16 10 29.6% 18.5% 4.2222 n/a 2 3 3.7% 5.6% 4.2037 n/a 5 2	13.0% 5.6% 38.9% 14.4259 n/a 2 2 21 3.7% 3.7% 38.9% 3.0741 3 21 8 13 5.6% 38.9% 14.8% 24.1% 3.5000 4 10 4 27 7.4% 18.5% 7.4% 50.0% 2.7407 6 25 5 13 11.1% 46.3% 9.3% 24.1% 3.4259 n/a 16 10 17 29.6% 18.5% 31.5% 4.2222 n/a 2 3 30 3.7% 5.6% 55.6%

Legend:

 $STD = strongly \ disagree \qquad SD = somewhat \ disagree \qquad UD = undecided \\ SA = somewhat \ agree \qquad STA = strongly \ agree \qquad n/a = not \ applicable$ 

Table 4 presents the analysis of technological issues pertaining to the implementation of internet banking in Malaysia.

The first item in the technological issues stated that it is technologically easy to get started with internet banking and 79.6% totally agreed while the remaining managers did not agree. Furthermore, 83.4% of the respondents claimed that internet banking is technologically easy to

maintain and a 3.9444 mean score for this item represents the second highest mean in the technological issues. While most of the managers perceived that internet banking is easy to implement and maintain, it is actually difficult to find talented individuals to run internet banking (61.1%). In addition, 83.3% of the managers strongly agreed that internet banking is expensive to implement. The mean for this item ranks the highest (4.0185). This shows that most of the respondents had positively agreed with this statement.

**Table 4**Descriptive Statistical Analysis of Technological Issues

Item	Mean	STD	SD	UD	SA	STA
First (T1)	3.8519	2	9	n/a	27	16
Technologically easy to get started.		3.7%	16.7%		50.0%	29.6%
Second (T2)	3.9444	2	3	4	32	13
Technologically easy to maintain.		3.7%	5.6%	7.4%	59.3%	24.1%
Third (T3)	3.3889	3	15	3	24	9
Difficult to find talented individuals		5.6%	27.8%	5.6%	44.4%	16.7%
to run internet banking.						
Fourth (T4)	4.0185	n/a	6	3	29	16
Is expensive to implement.			11.1%	5.6%	53.7%	29.6%

Legend:

STD = strongly disagree SD SA = somewhat agree STA

SD = somewhat disagree STA = strongly agre UD = undecidedn/a = not applicable

### DISCUSSION OF FINDINGS AND IMPLICATIONS

The findings of the study imply that bank managers, as a whole, perceive that internet banking is a sound strategy to increase service quality and provide the cutting edge for banks, thus the implementation of internet banking is mandatory for banks to compete effectively in the future. However, implementation of internet banking as a strategic weapon for survival would likely diminish the existence of the brickand-mortar banks.

This study also suggests that most of the bank managers are concerned about the operational issues. A possible explanation for this is due to the fact that internet banking in Malaysia is still at a nascent stage, thus its full potential will take time to materialise. The study also highlights some conflicting views regarding the perception of internet banking and human resource. Firstly, internet banking is perceived to reduce customer-banker relationship as the number of contact points is reduced. Secondly, there is a tendency that customers' loyalty towards

bank is reduced. Hence, this finding suggests that bank management should continue to offer personalised services to their customers. Internet banking should be informational and transactional tools to complement and enhance banking operations.

Given the speed of changes is technology, the Malaysian government has taken necessary steps to encourage the development of new delivery channels including internet banking. As outlined in the Financial Sector Master Plan, the government requires the management of banking institutions to give greater attention to the development of information, communication and technology as well as to improve awareness in internet banking to further improve the institutions.

### REFERENCES

- Ahmad, N., Ahmad, N. & Haron, S. (2001). E-banking as a Strategy Towards Meeting Globalisation. *The International Conference on Management Education*, Ho Chi Min City, Vietnam.
- Booz-Allen & Hamilton. (1997). Booz-Allen's Worldwide Survey Revealed a Huge Perception Gap Between Japanese and American/European Banks Regarding Internet Banking. http://www.bah.com/press/ jbankstudy.html
- Nath, R., Schrick, P. & Parzinger, M. (2001). Bankers' Perspectives on Internet Banking. *e-Service Journal*. 1(1): 21-36.
- Nehmzow, C. (1997). The Internet will Shake Banking Medieval Foundations. *Journal of Internet Banking and Commerce*. 2(2), March.(http://www.arraydev.com/commerce/jibc/9702.01.htm)
- Seitz, J. & Stickel, E. (1998). Internet Banking: An Overview. *Journal of Internet Banking and Commerce*.3(1), January. (commerce/JIBC/http://www.arraydev.com/commerce/JIBC/9801-8 htm)
- Shanmugam, B. & Vijayan P. (2003). Service Quality Evaluation of Internet Banking in Malaysia. *Journal of Internet Banking and Commerce*, 8(1), Jun. (http://www.arraydev.com/commerce/jibc/0306-06.htm)
- Stijn, C., Glaessner, T. & Klinebiel, D. (2000). *Electronic Finance: Reshaping The Financial Landscape Around the World*. World Bank: Financial Sector Discussion Paper No. 4.
- Suganthi, Balachander & Balachandran. (2001). Internet Banking Patronage: An Empirical Investigation of Malaysia. *Journal of Internet Banking and Commerce*, 6(1), May. (http://www.arraydev.com/commerce/jibc/0301-01.htm)