

INTERNET BANKING ADOPTION AMONG MALAYSIAN UNDERGRADUATES

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Abstract: *This study examines factors affecting the adoption of internet banking among undergraduates. Internet banking is becoming increasingly popular and more attractive both in the fields of corporate and retail banking as the rise of fintech revolution has spurred customer acceptance towards internet banking services. Data is analyzed from 100 Malaysian undergraduates. The findings indicate that performance expectancy and facilitating condition have a positive and significant relationship with the adoption of internet banking among undergraduates. That is, internet banking users tend to adopt internet banking when internet banking services improve productivity and enhance effectiveness. In addition, bank customers are more interested to use internet banking services if they are provided with sufficient support from the banks. On the contrary, effort expectancy, anxiety and perceived credibility are trivial factors in affecting the adoption of internet banking.*

Keywords: *Internet Banking; Malaysian Undergraduates; Performance Expectancy; Facilitating Condition*

Introduction

Internet banking is becoming more popular in the fields of corporate and retail banking as the growth of fintech has stimulated customer acceptance towards internet banking services. Banks that offers internet banking services manage to reduce their operating costs and hence enhance competitiveness among banks because banks charge lower fees for online banking and some services are free of charge (Gerlach, 2000; Jun & Cai, 2001). Banks require to increase their capability to compete with current competitors and new potential entrants as customers demand more and better internet banking service quality (Ahmed, 2016). Therefore, this development creates real challenges for players in the banking industry to inspire customers to adopt internet banking.

Previous literature documents that internet banking offers several advantages compared to the traditional ways wherein customers must visit banks whenever they need to perform banking related services. Internet banking services provide customers with timeliness and accuracy of information flow that minimizes the percentage of inaccurate information caused by various processing procedures (Kesharwani & Bisht, 2012). Internet banking also enables customers to perform the banking transactions anytime at anywhere with access to the Internet (Abushanab, Pearson, & Setterstrom, 2010). In addition, customers manage to keep track of their account transactions and balances without bringing their account books to bank counters for checking purposes. Another advantage of the internet banking is that it helps to stimulate a conducive environment by going paperless. That is, users are able to view their bank statements online anytime. Hence, internet banking definitely brings many conveniences for users by providing online access to various banking services.

Despite there are many advantages of internet banking, but are also downsides in using internet banking. One of the biggest threats of using internet banking is that users are at risk of being hacked by unauthorized people over the Internet where users receive fraudulent emails that ask them to sign in to their accounts using fake websites which is known as phishing. Another drawback of internet banking is customers account are misused by someone that know their password inadvertently. For instance, the recent case of a women claiming that her account was hacked to defraud individuals (FMT, 2017). Generally, there was only 45.6% of internet users trusted the Internet while others felt otherwise (MCMC, 2016). Further, customers with limited internet access are unable to make banking transactions smoothly as there is a possibility that transactions break down in the middle of the transaction. Additionally, customers with no computer literacy have a hard time in finding ways to use internet banking as using a website is not straightforward and there is little support from the bank. Users also always worry about whether they perform all banking transactions rightfully. Thus, these threats hinder the use of internet banking among customers.

This study investigates the adoption of internet banking among Malaysian undergraduates to acquire a better understanding of the concerns involved. In particular, five factors including performance expectancy, effort expectancy, facilitating condition, anxiety and perceived credibility are employed to examine the relationship between these factors and the adoption of internet banking for 100 undergraduates at Faculty of Economics and Management, Universiti Kebangsaan Malaysia.

This study is able to provide several important implications to policymakers, academicians, and researchers. Specifically, this study intends to enhance the understanding of factors influencing the adoption of internet banking among Malaysian undergraduates in further details. Internet banking is a vital study because it assists policymakers and industry players in promoting and stimulating new forms of internet banking strategies to increase the usage of internet banking among the people. Therefore, it is critical to understand the factors that affect the adoption of internet banking among Malaysian undergraduates.

Literature Review

Prior research documents factors that influence the adoption of internet banking. Performance expectancy measures user perceptions about the importance of using the internet banking to enhance productivity, improve job achievement and spur effectiveness (Gounaris and Koritos, 2008). Ramavhona and Mokwena (2016), Wang, Wang, Lin and Tang (2003), and Sayar and Wolfe (2007) document that internet banking users no longer need to visit banks physically to

conduct financial transactions and customers have the ability to conduct banking transactions faster at a lower cost, anytime and anywhere compared when they perform the transaction traditionally. These findings are similar with the study by Kaabachi, Mrad and Petrescu (2017) that users enjoy the fact that with internet banking services are made available to them, these services save them plenty of time when conducting banking transactions. Additionally, Jun and Cai (2001) indicate that customers tend to use internet banking services when performance expectancy increases.

In addition, Thaker et al. (2021) find that performance expectancy increases the internet banking adoption among clients of local and foreign Islamic banks in Malaysia. This is consistent with the finding of Khan et al. (2022) that performance expectancy is a significant factor in influencing the internet banking acceptance in Pakistan and Turkey. Xie et al. (2021) also indicate that performance expectancy is strongly related to financial technology adoption among individuals in the Chinese market. Hassan and Farmanesh (2022) also show that internet banking acceptance is significantly affected by performance expectancy among bank customers in Jordan. Moreover, Nguyen-Viet and Ngoc Huynh (2021) find that perceived usefulness is a key factor in promoting adoption of internet banking in Vietnam.

Moreover, effort expectancy measures the simplicity of customers in using internet banking services (Venkatesh, Morris, Davis, & Davis, 2003; Yee, Yeow, & Lim, 2015). Customers are usually convenience seekers. That is, they prefer simple procedures to conduct their financial transactions when using the internet banking services (Kim, Shin, & Lee, 2009). In addition, Sanchez and Gallie (2010) reveal that the level of complexity in the website determines user intentions to utilize internet banking services. Karjaluoto, Jarvenpaa and Kauppi (2009) also provide evidence that the ease of using internet banking services is important for customers to adopt internet banking services. Furthermore, Thaker et al. (2021) discover that effort expectancy plays an important role in spurring the adoption of internet banking among clients of local and foreign Islamic banks in Malaysia. According to Xie et al. (2021), effort expectancy also influences financial technology acceptance among individuals in China. Albort-Morant et al. (2022) also providing evidence that perceived ease of use is significant in increasing online banking adoption in Spanish cities and towns.

Research by Nel and Boshoff (2014) reports that facilitating condition is an important factor in influencing technology adoption behaviour. Venkatesh et al. (2003) document that customer acceptance towards internet banking services increases as their perceptions of internet banking facilitating conditions improve. Mols (2000) investigates the perceptions connected with the introduction of internet banking services. The authors provide evidence that internet banking services grow considerably as computer literacy increases and when customers have necessary resources to use the services provided by banks. Furthermore, Lee (2008) indicate that service quality is essential to encourage customers to use the internet banking services. Customers are more likely to adopt the internet banking services when banks improve their service quality by giving quick responses to complaints. Moreover, Thaker et al. (2021) reveal that the facilitating condition has a significant impact on the acceptance of internet banking among clients of local and foreign Islamic banks in Malaysia.

Further, anxiety is one of the concerns of internet banking users. In the research by Igbaria, Parasuraman and Baroudi (1996), the authors define anxiety computing as the inclination of the people to be fear of using computer. Gerrard, Cunningham and Devlin (2006) document that respondents associate the internet banking services with security risks, privacy intrusions and

anxiety about losing information. Similarly, customers are mostly concerned about the security issues when conducting transactions using the online banking (Kwame, Boateng, Okoe, & Gvozdanovic, 2017). Medyawati and Yunanto (2017) also show that anxiety affects the adoption of internet banking among customers.

Perceived credibility is vital to stimulate customers to use the internet banking services. Banks must provide a reliable platform that is safe from numerous threats when utilizing the internet banking services. Lin, Wu and Tran (2015) show that the perceived credibility of security and privacy are main factors that influence user intentions to adopt internet banking. The lack of perceived credibility causes internet banking users to be afraid that their personal information or money are transferred to a third party without their consents with the usage of internet banking. Thus, a safe and reliable internet banking platform is crucial to attract customers to adopt the internet banking. Hackers are unable to spread viruses, make illegal transactions and trace the information of internet banking users when a secure internet banking system is in place. It is supported in the research by Kazi (2013) that most higher education students still believe that internet banking is trustworthy. This is in line with Khan et al (2022)'s finding that perceived credibility positively influences internet banking acceptance among Pakistani and Turkish bank customers. Rahi et al. (2021) also emphasize the importance of trust that may lead to continuance use of Internet banking services among internet banking users of commercial banks. Khedmatgozar (2021) also finds that perceived risks impact the internet banking adoption in Iran.

As reported in the literature review, performance expectancy, effort expectancy, facilitating condition, anxiety and perceived credibility affect the adoption of internet banking. Hence, this study contributes to the literature by offering new evidence on the robustness of these factors in influencing the adoption of internet banking.

Data and Methodology

Data is collected from 100 respondents that consist of undergraduates studying at Faculty of Economics and Management, Universiti Kebangsaan Malaysia. Respondents are randomly selected. The purpose of the research is explained to the respondents after distributing the questionnaire. Each respondent uses about 10 to 15 minutes to complete the questionnaire. In addition, questionnaires are administered personally and they are collected on the spot after the completion of responses. The main advantage of employing this method is that respondents are able to clear up their doubts if they encounter any problems about the questionnaires. Although this method is time consuming but it is worth the effort as it ensures 100% response rate and enhances the credibility of the responses in the questionnaires.

The main purpose of this study is to determine the factors that affect the adoption of internet banking amongst undergraduates at Faculty of Economics and Management, Universiti Kebangsaan Malaysia. In particular, performance expectancy, effort expectancy, facilitating condition, anxiety and perceived credibility are the independent variables while the adoption of internet banking is the dependent variable in this research. Further, reliability test is used to test the reliability of the variables employed. Specifically, Cronbach's Alpha is utilized to determine the internal consistency of the dataset. Moreover, regression analysis is employed to investigate whether there is a significant relationship between the dependent variable and independent variables in the regression model.

Findings and Discussion

Table 1 presents the demographic information for the respondents. In general, there are 100 respondents. Specifically, 33 respondents are males and 67 respondents are females. The majority of the respondents are Malay with 51 undergraduates followed by 41 Chinese respondents, 5 Indian respondents while the remaining undergraduates are from other races. Moreover, most of the undergraduates or a total of 44 respondents took the Malaysian Higher School Certificate or commonly recognized as STPM before entering the university. Matric students are ranked the second most with 38 respondents, followed by 15 undergraduates who took the Diploma program to enter the university while 3 respondents are from Asasi Pintar program whereby the Asasi Pintar program is a pre-university program for applicants that are interested in gaining admission to undergraduate courses in Universiti Kebangsaan Malaysia.

The areas of study for the respondents at Faculty of Business and Management, Universiti Kebangsaan Malaysia are also shown in the Table 1. The majority of the respondents are from the field of finance (28%), followed by human resource (24%) while both economics and accounting studies contribute 16% of the respondents. The remainder of the respondents are from the field of marketing (12%), international business (3%) and risk management (1%). Thus, the respondents are from different field of studies.

Table 1: Demographic Profile

	Data	Frequency	Percentage (%)
Gender	Male	33	33.0
	Female	67	67.0
Race	Malay	51	51.0
	Chinese	41	41.0
	Indian	5	5.0
	Others	3	3.0
Education Level	Diploma	15	15.0
	Matric	38	38.0
	STPM	44	44.0
	Asasi Pintar	3	3.0
Academic Major	Finance	28	28.0
	Marketing	12	12.0
	Economics	16	16.0
	Accounting	16	16.0
	Human Resource	24	24.0
	International Business	3	3.0
	Risk Management	1	1.0

Table 2: Reliability Test

Variables	Cronbach's Alpha
Performance Expectancy	0.837
Effort Expectancy	0.790
Facilitating Condition	0.767
Anxiety	0.755
Perceived Credibility	0.735
Behavioural Intention	0.884

Table 2 presents the findings of Cronbach's alpha test that is used to measure the reliability, validity and consistency of the questionnaire employed in this study. The dependent variable is behavioural intention while the independent variables are performance expectancy, effort expectancy, facilitating condition, anxiety and perceived credibility. The results find that the Cronbach's alpha for behavioural intention is 0.884. For independent variables, performance expectancy has the highest consistency at 0.837, followed by effort expectancy at 0.790, facilitating condition at 0.767, anxiety at 0.755 and lastly perceived credibility at 0.735. All variables have Cronbach's alpha more than 0.7 which indicates that all data are reliable and consistent. Therefore, the variables of behavioural intention, performance expectancy, effort expectancy, facilitating condition, anxiety and also perceived credibility are appropriate to be employed in the analysis.

Table 3 documents the findings of regression analysis. It is reported that the F-value of the regression model is 9.866 and it is significant at the 1% level, indicating that the regression specification is valid. The adjusted R-square value is 30.9%. It implies that the independent variables explain 30.9% of the variation in the dependent variable. Performance expectancy has a positive and significant relationship with the adoption of internet banking at the 1% significance level. It suggests that internet banking users tends to use internet banking if the internet banking services are able to improve productivity, spur job achievement and enhance efficiency. Thus, this finding is consistent with previous studies including Kaabachi et al. (2017), Thaker et al. (2021), Xie et al. (2021), Khan et al. (2022), Hassan and Farmanesh (2022) and others.

Table 3: Results of Regression Analysis

Variable	Coefficient
Performance Expectancy	0.502** (3.829)
Effort Expectancy	0.136 (1.527)
Facilitating Condition	0.296* (2.179)
Anxiety	0.006 (0.059)
Perceived Credibility	0.074 (0.697)
F-value	9.866**
Adjusted R ²	0.309

*Notes: The t-statistics are presented in parentheses. ** and * denote statistical significance at the 1% and 5% levels, respectively.*

Furthermore, facilitating condition is positively and significantly associated with the adoption of internet banking among undergraduates. It infers that customers prefer to utilize internet banking services when internet banking facilitating conditions improve. This finding is in line with those of Mols (2000), Venkatesh et al. (2003), Lee (2008) and Thaker et al. (2021). On the contrary, effort expectancy, anxiety and perceived credibility have insignificant link with the adoption of internet banking, indicating that the three variables play an insignificant role in influencing the adoption of internet banking.

Conclusion

This research examines the adoption of internet banking among Malaysian undergraduates to obtain a better understanding of the concerned issue. Specifically, five factors including performance expectancy, effort expectancy, facilitating condition, anxiety and perceived credibility are used to investigate the link between these factors and the adoption of internet

banking for 100 undergraduates at the Faculty of Economics and Management, Universiti Kebangsaan Malaysia.

The findings from the reliability test indicate that all variables have high values of Cronbach's alpha, suggesting that all variables have a strong reliability and consistency. Therefore, all variables are suitable to be utilized in this research. The findings from the regression analysis indicate that performance expectancy and facilitating condition have positive and significant impacts on the adoption of internet banking among the undergraduates. In contrast, effort expectancy, anxiety and perceived credibility are unimportant in influencing the adoption of internet banking.

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