

FACTORS INFLUENCING ATTITUDE TOWARD INNOVATIVE BANKING SERVICES

Badiuzzaman¹, Abdulla Al-Towfiq Hasan², Mahamudul Hasan³ and Md. Abidul Islam⁴

Abstract

The aim of the study was to analyze factors which influence on the attitude toward innovative banking services. A structured questionnaire has been developed and distributed among 100 respondents who are using innovative banking services for their financial transactions. The respondents were selected by simple random sampling from Barishal division (Barishal sadar, Barishal University, Patuakhali sadar, Patuakhali Science and Technology University). The reliability and validity of the questionnaires were analyzed through cronbach's alpha value, factor loading and composite reliability. Results of the study were subsequently analyzed by using Pearsons correlations and multiple regression analysis. The results show that perceived ease of use, perceived usefulness, perceived web security, and intention to use had positive impact on behavioral intention toward innovative banking services. Results also showed that behavioral intention had significant positive impact on predilection of the customers' toward innovative banking services.

Key Words: Innovative Banking services, Perceived ease of use, Perceived usefulness, Behavioral intention, Predilection.

Introduction

Information technologies are the dominating factors in 21st century (Akinci *et al.*, 2004). Littler & Melanthiou (2006) supported that innovation indicates development of banking services and it is the base of development of banking industry by which the banking industry provides better services to customers to make their lives easier and comfortable (Liao & Cheung, 2002). Innovative banking services make banking sector flourished as well as user friendly for customers. It is not a single term rather it includes Automated Teller Machine (ATM) banking, internet banking/online banking, mobile banking, etc. (Akturan *et al.*, 2012). Karjaluoto *et al.* (2002) identified that in this busy world, people don't want to wait in queue in bank for their daily banking transactions. That's why traditional banking system is being replaced by digital banking system, which is called innovative banking services (Sohail & Shanmugham, 2003). Liao & Cheung (2002) argued that banking industry plays a vital role for the development of economic growth of Bangladesh. The development of banking industry is the indicator of economic development of Bangladesh (Reaz & Arun, 2006). Very recently, Bangladesh has started digitalization in banking sector which has brought about revolutionary changes in banking sector (Baten & Kamil, 2010). Now, banks in Bangladesh provide innovative banking services (internet banking/online banking facilities, ATM facilities, agent Banking facilities, mobile banking facilities) to customers.

¹Department of Economics and Sociology, Faculty of Business Administration and Management, Patuakhali Science and Technology University (PSTU), Patuakhali, ²Lecturer, Department of Marketing, Faculty of Business Administration and Management, PSTU, Patuakhali, ³Assistant Professor, Department of Marketing, Faculty of Business Administration and Management, PSTU, Patuakhali, ⁴Assistant Professor, Department of Animal Science, Faculty of Agriculture, PSTU, Patuakhali, Bangladesh.

Hood (1979) indicated that Automated Teller Machine (ATM) banking makes banking services easy, secured, and useful, which is a tool of innovative banking services. Through the ATM, customers make transactions smoothly in anytime anywhere regarding security. Bomil *et al.* (2002) argued that internet banking is far better and secured than traditional banking because there no need of physical transaction of money, no waiting time, and no hassle, etc., which is another tool of innovative baking services. It makes customers easy transaction of huge amount of money with high security (De Young, 2001). Laforet & Li (2005) found that mobile banking is banking though the mobile which is very user friendly and secured for customers is another tool of innovative banking services in Bangladesh.

Previous studies identified that ease of use, usefulness, and web security have significant influences on customer's predilection towards innovative banking services. Therefore, the main purpose of this study is to analyze the factors which significantly influence the attitude towards innovative banking services by Technology Acceptance Model (TAM) in banking industry in Bangladesh (Al-Gahtani, 2001).

Objectives of the Study

The main objective of the study is to analyze the factors that influence attitude toward Innovative banking services in Bangladesh. The specific objectives of the study are as below:

1. To investigate the impact of perceived ease on behavioral intention toward innovative banking services;
2. To investigate the impact of perceived usefulness on behavioral intention toward innovative banking services;
3. To investigate the impact of perceived web security on behavioral intention toward innovative banking services;
4. To investigate the impact of Intention to use on behavioral intention toward innovative banking services;
5. To investigate the impact of Behavioral intention on predilection towards innovative banking services.

Methodology

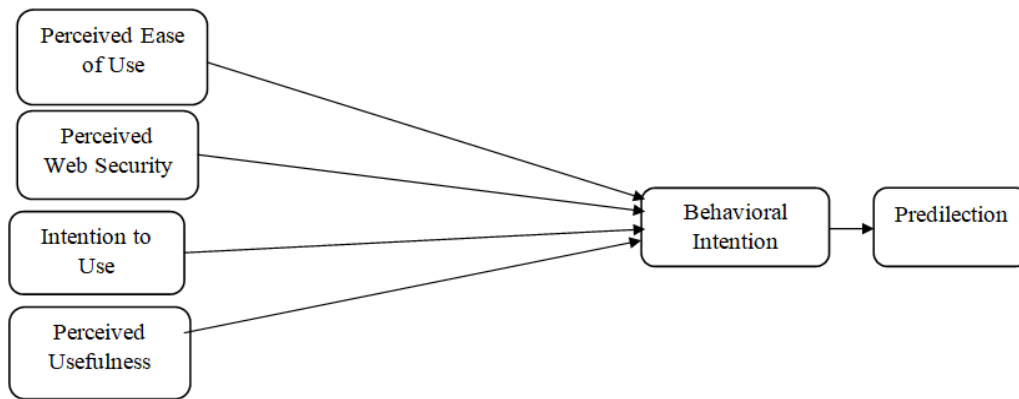
The study is descriptive in nature on the basis of proposed hypothesis and testing the hypothesis (Cavana *et al.*, 2001).The research was conducted through collecting primary and secondary data. Different sources were used for collecting secondary data, such as newspapers, websites, journals, etc. Primary data was collected through personal interview by five point Likert scale where (5) indicates strongly agreed and (1) indicates strongly disagreed. Demographic data were also considered as male, female, age, occupation, education, and income. The data collection period was from 1 March, 2018 to 31 May, 2018 (3 months). The data collection area was Barishal division (Barishal sadar, Barishal University, Patuakhali sadar, Patuakhali Science and Technology University). The sample (sample size-100) was selected through simple

random sampling and sampling frame was the customer list of six branches of three state-owned banks. The research questionnaire was developed and a pilot study was conducted on 30 respondents to detect any ambiguities that were not easily understood by the respondents and checked by expert opinion for content validity before it was administered. Cronbach Alpha was also calculated to determine internal consistency and reliability of the items.

Conceptual framework

Based on the objectives and hypotheses of the study, the following conceptual framework has been proposed by the researchers. The conceptual framework represents the interrelationships among the variables according to the objectives of the study.

Figure 1



Statement of hypothesis

- H1: Perceived ease of use has a significant influence on behavioral intention toward innovative banking services.
- H2: Perceived usefulness has a significant influence on behavioral intention toward innovative banking services.
- H3: Perceived web security has a significant influence on behavioral intention toward innovative banking services.
- H4: Intention to use has a significant influence on behavioral intention toward innovative banking services.
- H5: Behavioral intention has a significant influence on predilection toward innovative banking services.

Results and Discussion

Table 1. Demographic characteristics of the respondents

No:	Description		Frequency	Percentage
1	Gender	Male	71	71
		Female	29	29
2	Age	18 to 30	38	38

Table 1. Cont'd.

		31 to 50	41	41
		Above 50	21	21
3	Marital status	Unmarried	26	26
		Married	74	74
4	Education	HSC and Below	34	34
		Honors	44	44
		Masters and above	22	22
5	Income	Below 20,000 taka	24	24
		20,000 to 50,000 taka	64	64
		Above 50,000 taka	12	12

Table 2. Reliability and validity analysis

Factors	Statements	Cronbach's Alpha	Composite reliability	Factor loading	Average variance extracted
Perceived Ease of Use	1. Using the innovative banking services are easy for me.	.759	0.774381	.943	0.364655
	2. Learning to operate the innovative banking services are easy for me. (self-learning)			.252	
	3. Interacting with technology for using innovative banking services are often frustrating. (disappointment)			.389	
	4. It is easy to remember how to perform tasks and takes a lot of effort to become skillful for using innovative banking services.			.844	
	5. I would find it easy to get information about latest banking services.			.506	
	6. It is very easy to get my account statement.			.611	

Table 2. Cont'd.

	7. I seek advice from my family members friends/bank employees/colleagues before I use innovative bankings services.			.724	
Perceived Usefulness	1. Innovative banking services enable me to accomplish my tasks more quickly.	.713	0.629493	.543	0.271144
	2. It gives me greater control over my transaction.			.823	
	3. It supports critical aspects of my dealing with banking services.			.529	
	4. It allows me to accomplish more transaction through technological based innovative banking services than using currency notes.			.833	
	5. It would be difficult to perform banking activities without IBS.			.573	
	6. I feel technology helps me fulfilling my timely need of banking services.			.685	
Perceived Web Security	1. I use IBS using the website address of Bank received through e-mails/SMS.	.557	0.719414	.530	0.30897
	2. I access internet banking by copy-pasting the website address of bank from other websites			.544	
	3. I change my password frequently.			.620	
	4. I don't disclose my password to anyone.			.458	
	5. I write my user ID and Password/PIN in a diary, card cover, draft in mobile/ e-mail, etc.			.310	
	6. I don't reply to emails that ask for my user ID and password.			.764	

Table 2. Cont'd.

	7. I log off/log out the services immediately after use.			.728	
	8. I read the tips for safe use of IBS on the bank website clearly and frequently.			.911	
	9. I verify the last date and time log off given in the IBS.			.623	
	10. Fear about hackers.			.933	
	11. I verify all my IBS transactions periodically.			.632	
	12. I feel it's fully secured to make transaction.			.548	
Intention to Use	1. I can do myself using the technology based Innovative Banking Services for handling my banking transactions.	.704	0.659311	.455	0.259679
	2. It is less time consuming.			.688	
	3. I can use it successfully every time.			.679	
	4. It gives flexible time to use the banking services.			.781	
	5. I intend to continue using the innovative banking services of bank.			.461	
	6. It is more prestigious than queuing in bank premises for long hours.			.702	
Behavioral Intention	1. I am very loyal to my bank.	.652	0.658865	.553	0.396559
	2. My present bank would be my first choice if I need banking services.			.610	
	3. I would encourage my friends and relatives to do transactions using technology based innovative banking services.			.677	

Table 2. Cont'd.

	4. Technology development in banks lead to unhealthy relationship with the banker.			.854	
	5. Digitalization of banking services is needed.			.506	
Predilection	1. Using Innovative Banking Services is a good idea.	.746	0.68824	.659	0.310981
	2. I feel less risky to use the Innovative Banking Services.			.709	
	3. I carefully follow steps to use the services.			.707	
	4. I prefer to use innovative banking services.			.452	
	5. I'm intending to use both traditional and innovative banking services.			.525	
	6. I feel tension free attitude in using innovative banking services.			.663	

Albeit Cronbach’s Alpha is widely used as estimation for reliability tests, it has been criticized for its low bound value which underestimates the true reliability (Bland& Altman, 1997). All the data obtained have been analyzed for determining the reliability of the data by using reliability analysis through SPSS. This analysis estimates to ensure consistency and stability of data (Cavana, Delahaye & Sekaran 2001).The reliability is measured by calculating Cronbach Alpha and the value ranges from .6 to 9 (Bland& Altman, 1997).

Table 3. Correlation Coefficients

Correlations							
		Use	Usefulness	Security	Intention	Behavioral	Predilection
Behavioral	Pearson Correlation	.132	.148	.141	.202*	1	.192
	Sig. (2-tailed)	.000	.000	.001	.044		.055
	N	100	100	100	100	100	100
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							

The Table 3 shows that perceived ease of use has a positive significant correlation with behavioral intention toward customers' attitude toward innovative banking services. The correlation coefficient is $r = .132$, $p = .000 < .05$.

Perceived usefulness has a positive significant correlation with behavioral intention of the customers' attitude toward innovative banking services. The correlation coefficient is $r = .148$, $p = .000 < .05$. Perceived web security has a positive significant correlation with behavioral intention towards innovative banking services. The correlation coefficient is $r = .141$, $p = .001 < .05$. Intention to use has a positive significant correlation with behavioral intention of the customers' attitude toward innovative banking services. The correlation coefficient is $r = .202$, $p = .044 < .05$. Therefore, H1, H2, H3 and H4 of the study are accepted.

Regression

Predilection = $\beta_0 + \beta_1$ Behavioral intention

Table 4. Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.192 ^a	.037	.027	.44968
a. Predictors: (Constant), Behavioral intention				

Table 4 shows that the *R* square (co-efficient of determination) is a portion of the total variation in the dependent variable that is explained by the variation in the independent variables. According to the model summary, *R* square is equal to 0.037. Approximately 3.7% of variance in Predilection can be significantly influenced by behavioral intention.

Table 5. ANOVA

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.760	1	.760	3.757	.003 ^a
a. Predictors: (Constant), Behavioral intention						
b. Dependent Variable: Predilection						

Table 5 shows that the *F* value is 3.757 and significant at level of 0.05. It indicates that Behavioral intention has a significant influence on predilection.

Table 6. Regression Coefficients

Coefficients ^a						
Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
	Behavioral intention	.162	.083	.192	1.938	.003
a. Dependent Variable: Predilection						

Table 6 shows that the coefficient of the independent variable is significant at the level of 0.05 and behavioral intention has positive impact on predilection of attitude toward innovative banking services.

The study showed that behavioral intention has significant influence on customer's predilection of using innovative banking services regarding reaping opportunities of using innovative banking services. Perceived ease of use of innovative banking services has positive relation with behavioral intention to use innovative banking services which indicates that customers are eager to use innovative banking services (internet banking, ATM banking, mobile banking). Perceived usefulness of innovative banking services has strong relationship with behavioral intention of the use innovative banking services that make sure that respondents think it far essential than traditional banking services. The study shows that web security has positive relationship with behavioral intention to use innovative banking services. The study also shows that intention to use significantly influences behavioral intention to use innovative banking services. Therefore, ease of use, usefulness, web security, and intention to use have significant influences on behavioral intention toward the use of innovative banking services. The findings of the study is consistent with numerous previous studies (Al-Gahtani, 2001; Pikkarainen *et al* , 2004; Suh and Han ;2002 ; Davis, F. , 1989) .

Conclusions and Recommendations

The findings of the study reveal that perceived ease of use, perceived usefulness; perceived security and intention to use have significant positive relationship with behavioral intention toward innovative banking service. Therefore, the banks must upgrade and develop the innovative banking service options to make those more convenient and useful and secured for the consumers. Banks should offer personalized innovative banking services that are valued and unique to their customers. The banks must capitalize on new technologies to continuously meet consumer needs and build strong customer relationships. Safety and security of using innovative banking services must be ensured to provide customer satisfaction.

As the sample size was small, the findings of the study must not be generalized in other settings. This study has tested a number of hypotheses on factors influencing attitude towards innovative banking services. Future studies including a bigger sample size and more variables to test that can assist better understanding o this issue.

References

- Al-Gahtani, S. (2001). The applicability of TAM outside North America: An empirical test in the United Kingdom. *Information Resources Management Journal*, **14** (3): 37.
- Akinci, S., Aksoy, Ş. and Atilgan, E. (2004). Adoption of Internet Manking among sophisticated consumer segments in an advanced developing country. *International Journal of Bank Marketing*, **22** (3): 212-232.
- Akturan, U., & Tezcan, N. (2012). Mobile banking adoption of the youth market: Perceptions and intentions. *Marketing Intelligence & Planning*, **30** (4): 444-459.
- Baten, M. A., & Kamil, A. A. (2010). E-banking of economical prospects in Bangladesh. *Journal of internet Banking and Commerce*, **15** (2), 1-10.

- Bland, J. M., & Altman, D. G. (1997). Statistics notes: Cronbach's alpha. *Bmj*, **314** (7080): 572.
- Bomil, S. & Ingoo, H..(2002). Effect of trust on customer acceptance of Internet Banking. *Electronic Commerce Research and Applications*, **1**: 247-263.
- Cavana, R. Y., Delahaye, B. L. & Sekaran, U. (2001). *Applied business research: Qualitative and quantitative methods*. John Wiley & Sons Australia.
- Davis, F. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, **13** (3):319-340.
- De Young, R. (2001). The Internet's place in the banking industry. Chicago Fed Letter, (Mar).
- Geroge, A., & Kumar, G. (2013). TAM constructs and extent of use of internet banking: An Empirical analysis. *Commerce spectrum double blind peer reviewed half Yearly Journal*, **1** (1): 18-25.
- Hood, J. M. (1979). Demographics of ATMs. *Banker's Magazine*, November December, 68-71.
- Humphrey, D. B. (2003). Cost savings from electronic payments and ATMs in Europe.
- Joseph, M., & Stone, G. (2003). An empirical evaluation of US bank customer perceptions of the impact of technology on service delivery in the banking sector. *International Journal of Retail & Distribution Management*, **31** (4), 190-202.
- Karjaluoto, H., Mattila, M., &Pento, T. (2002). Factors underlying attitude formation towards online banking in Finland. *International Journal of Bank Marketing*, **20**(6){ 261-272.
- Laforet, S. & Li, X. (2005). Consumers' attitudes towards online and mobile banking in China. *International Journal of Bank Marketing*, **23**(5), 362-380.
- Liao, Z., & Cheung, M. T. (2002). Internet-based e-banking and consumer attitudes: an empirical study. *Information & Management*, **39** (4), 283-295.
- Littler, D., &Melanthiou, D. (2006). Consumer perceptions of risk and uncertainty and the implications for behaviour towards innovative retail services: the case of internet banking. *Journal of Retailing and Consumer Services*, **13** (6): 431-443.
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., &Pahnila, S. (2004). Consumer acceptance of online banking: an extension of the technology acceptance model. *Internet Research*, **14** (3): 224-235.
- Reaz, M., &Arun, T. (2006). Corporate governance in developing economies: perspective from the banking sector in Bangladesh. *Journal of Banking Regulation*, **7**(1-2) 94-105.
- Sohail, M. S., & Shanmugham, B. (2003). E-banking and customer preferences in Malaysia: An Empirical investigation. *Information Sciences*, **150** (3-4): 207-217.
- Suh, B. & Han, I.. (2002). Effect of trust on customer acceptance of Internet Banking. *Electronic Commerce Research and Applications*, **1** (3-4): 247-263.