# An Analysis of Customer Perceptions on Services of Electronic Banking in Bangladesh

Mohammad Masudur Rahman<sup>1</sup>, Muhammad Ataur Rahman<sup>1</sup> & Md Neshat Fahmed<sup>1</sup>

<sup>1</sup> Department of Business Administration, East West University, Dhaka, Bangladesh

Correspondence: Muhammad Ataur Rahman, Department of Business Administration, East West University, Dhaka, Bangladesh. Tel: 096-6677-5577 Ext 417. E-mail: ataur@ewubd.edu

Received: October 2, 2016	Accepted: December 6, 2016	Online Published: December 28, 2016
doi:10.5539/ijbm.v12n1p169	URL: http://dx.doi.org/10.5539/ijb	om.v12n1p169

# Abstract

The use of Internet is growing rapidly in all business sectors to maintain effective relationships with customers, suppliers, distributors and many other parties. Banking sector is receiving the benefits of Internet by providing online services to the customers. Online services of banks are very useful for the internal employees and the customers where popularity of banking is increasing gradually. The benefits of E-Banking are enormous for both the financial institutions and bank customers. These benefits are the basis for the growth of the E-Banking. For the bank customers, the biggest benefit of E-Banking is convenience, longer banking hours, flexibility and accessibility. Despite the benefits and advantages of E-Banking, there are drawbacks and weaknesses. In developing this study, a pre-defined methodology and procedure have been followed. The aim of this research is to evaluate customers' perceptions on the Electronic banking services in Bangladesh.

Keywords: electronic banking, Internet, ICT, online transaction, electronic commerce

# 1. Introduction

Banking industry is continuously introducing and upgrading different types of technology from the late 1980s to make business transactions more flexible for the people. To make the business transactions faster, science and technology have opened a new era for human being that is electronic banking system. One example of Electronic Banking is transferring funds from one account to another account without providing cash or check like brick and mortar system. Electronic banking has mainly performed its activities such as checking current balances, verifying withdrawals, deposits, payments, and transactions through difference types of electronic media-i.e., computer, web technology, telecommunications network, Smartphone.

The use of online banking around the globe is very significant. For every 100 Internet users in the world, 29 persons use online banking whereas 45 persons out of 100 Internet users use online services of banks during April, 2012 (Singhal & Padhmanabhan, 2008). USA, UK, France, Sweden and Switzerland initiated the E-Banking services in the 1960s. British Bankers' Association (BBA) reported that popular banks in Britain handled almost 7 billion transactions during 2013. Online banking penetration rates for Iceland, Norway, Finland, Denmark, Netherlands and Sweden have more than 80% in 2014 (Statista, 2014).

Jeevan (2000) said that rigid supervision can lead to discretion which will help to improve infrastructure of online banking. Nair (1999) showed that electronic medium is the urgent requirement of commercial banks due to the increase of competition. Since its beginning, Internet banking has sustained growth. The systems of top electronic banks in the industry were implemented with very low costs in compare to other popular Internet banks (Sahlen, 2002). Some 71% of EU-7 online adults now bank online - meaning they have viewed a balance, paid a bill, or transferred money at least once in the past three months. (Forrester Research, 2014). According to the Australian Bureau of Statistics (2010-11), 91% were using email services, 87% were browsing for news, research and 64% were using services of online banking from 13.3 million people who used Internet at their homes.

Recently, Bangladesh government has given importance to establish a digital Bangladesh so that they take different types of steps to develop ICT system in all sectors. But due to slow Internet speed and lack of knowledge on e-banking, all customers don't get the same types of facility under the e-banking system. For that reason, sometimes the perception on e-bank differs from person to person. Globally e-banking is widely accepted in terms

of customer services, banking securities and customers' perception. In this paper, we mainly tried to find out customers' present opinions on services of e-banking.

## 1.1 Objective of the Study

The main objective of the study is to find out the Customer Reactions on the Electronic Banking service in Bangladesh applying the following premises.

- One can retrieve all kind of accessible information timely through e-banking facility;
- The E-banking transactions are not quite secure in our country;
- E-banking facilities are quite attractive if the costs of services are reduced;
- Common understanding about E-banking facilities is not clear due to its continual changes.

## 2. Literature Review

The activities of banks have changed dramatically from the last two decades with the advancement of electronic commerce and information technology throughout the world (Kalakota & Whinston, 1996). Bill Gates said that "Banking is essential, banks are not" (Bill Gates, 2008) which means that the traditional bank system is changed day by day with the demands of new customers. Singhal and Padhmanabhan (2008) have explained that introducing new technologies can increase the number of customers in long run and also create a positive impact on relationship between customers and banks. From bill payments to investment submissions are provided by the services of E-banking or Internet banking (Pikkarainen et al., 2004). On the other hand, customers use ATM machines, cellphones, Internet frequently to receive the services of online banking services (Laforet & Li, 2005).

For its unique benefit, electronic medium has become an indispensable way to serve customers which is contributing to the good performance of banks (Christopher et al., 2006; Brodie et al., 2007; Singhal et al., 2008).

Banks are using effective communication system when they exchange currency under E- Banking (Godarzi & zobaidi, 1999). Moreover, we can say that E- Banking is a service provider system which provides low cost services with the use of electronic networks. As a result services of banks are not limited to time and locations (Karjaluoto et al., 2002). Online banking is considered as one of the less expensive mediums for delivering products and services (Pikkarainen et al., 2004). Mia, Rahman and Debnath (2007) observed that the banking sector is now trying to take benefits of Internet technology to cope with the changing market in environment.

Syed Abdulla Al Mamun and Mst. Nusrat Sharmin (2011) explained the economic values of information system on banking sector. Tuchilla (2000) showed other types of advantages for using information system as well as online banking system. Huda et al. (2004) has shown that banks in Bangladesh have recognized the importance of technology to improve performance. Atiur Rahman (2010), former Governor of Bangladesh Bank, claimed that Bangladesh Bank has improved the quality services in business through e-banking.

Moreover, Stewart (1999) said that the trust of the customers is the main reason for failure of retail banking. Easingwood & Storey (1993) have said that the coordination between customer and banks is very important for the successful services. Oghenerukevbe (2008) explained that online banking has attracted so many new customers by giving quick banking services through network. Hua (2009) experimented how the use of banking website and the privacy policy of banking website effect on online banking perception. Nyangosi, Arora and Singh (2009) claimed that online banking has reached growing acceptance among customers in few years. E-banking in global perspective is improving rapidly and customers are accepting the e-banking without hesitations. In this paper, we have analyzed customers' perceptions towards e-banking services in Bangladesh through surveys.

## 3. Data Collection and Analysis Method

This paper has completed on the basis of both primary data and secondary data. Internal secondary data and external secondary data along with primary data are collected to make the quantitative research. Sources of external secondary data are different published reports, books and journals and the sources of internal secondary data are internal employee records and internal profits of the different concerned organizations. Responses of surveys have taken from 150 different persons based on income level, age, education and gender from different banks which provide online services in Bangladesh.

## 3.1 Data Analysis Method

The paper is developed mainly based on the primary data and secondary data. We reviewed different relevant articles to develop the paper. By reading those data, we develop our own view on the topics.

The analytical portion of this paper is the outcome of numerous numerical data collected mainly from the survey questionnaire. In order to get appropriate, accurate and quick result; we used of MS Excel 2010 and SPSS 13.0.

# 4. Result and Decision

#### 4.1 Demographic and Descriptive Statistics

In our survey, all of the 150 respondents of the questionnaire were users or just one time user of the E-banking service. The following table represents the demographic characteristics of the respondents.

## 4.1.1 Frequency Table

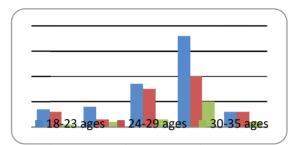


Figure 1. Age wise responses of "One can retrieve all kind of accessible information timely through e-banking facility"

18-23 aged people group mainly agrees with this statement. Young generation uses more science and technology than the aged people. For knowing the proper system, they can retrieve all types accessible information timely through e-banking facility and they are the most protential consumer for e-banking service.

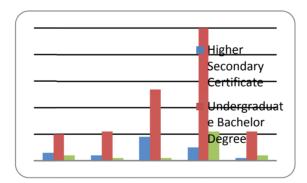


Figure 2. Responses of "One can retrieve all kind of accessible information timely through e-banking facility" based on education

Education plays a significant role to take decision. Undergraduate Bachelor Degree holders agree with above statement. One of the possible reasons could be Undergraduate degree holders know more about online banking system than others.

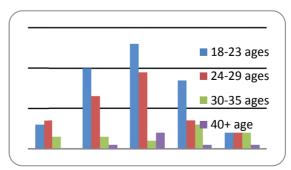


Figure 3. Responses of "The E-banking transactions are not quite secure in our country" based on age

Most of the people gave neutral opinion and rest of the people disagree with that statement because nothing happened which was so concerning about the security of e-banking in our country.

18-24 aged people more disagree with that statement "The E-banking transactions are not quite secure in our country", because they clearly understand about e-banking system. On the other hand, 36-40 aged people keep neutral with that statement.

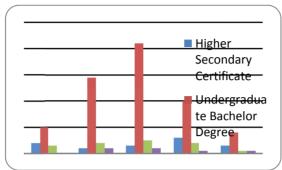


Figure 4. Responses of "The E-banking transactions are not quite secure in our country" based on education

Here we can see that HSC passed people are more agreed with that statement "The E-banking transactions are not quite secured in our country" than other educated people. Educated people do not believe that the e-banking systems are not quite secured in our country. Because, educated people are better well-known about their banking security.

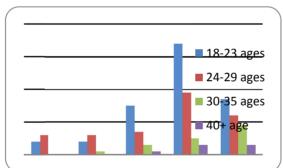


Figure 5. Responses of "E-banking facilities are quite attractive if the costs of services are reduced" based on age

Here, we can see that age change the perception on that statement "E-banking facilities are quite attractive if the costs of services are reduced". Young people strongly agree that if costs of e-banking service are reduce then it become more attractive to mass people.

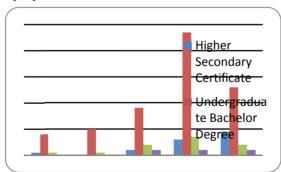


Figure 6. Responses of "E-banking facilities are quite attractive if the costs of services are reduced" based on education

Here, we can see that all types of educated people are agreed with that statement "E-banking facilities are quite attractive if the costs of services are reduced". Undergraduate Bachelor Degree holder people mostly agree with that statement. Among all Undergraduate Bachelor Degree holders are used e-banking system in their daily

transaction activities. For that reason, they are paying more than other group of people.

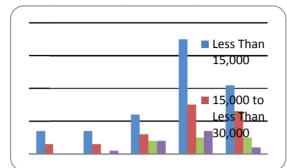


Figure 7. Responses of "E-banking facilities are quite attractive if the costs of services are reduced" based on income

Here, we can see that all income groups of people are agreed with that statement "E-banking facilities are quite attractive if the costs of services are reduced". But 1<sup>st</sup> group of people mostly agree with that statement, because, they want to get all types of facilities with a little amount of money.

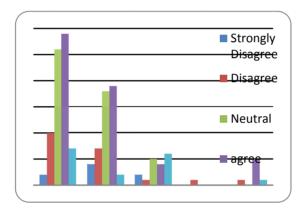


Figure 8. Responses of "Common understanding about E-banking facilities is not clear due to its continual changes" based on age

Among all groups, 18-24 aged people agree with that statement, because almost all users are new in that service. Moreover, 40+ people also strongly agree with this statement; because, they are not well-known about the new technology and they do want to take new technology easily in their daily life.

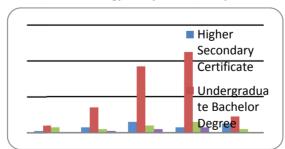


Figure 9. Responses of "Common understanding about E-banking facilities is not clear due to its continual changes" based on education

Diploma degree holder people are more agree with this statement. Because of lack of education, they do not able to cope up themselves with those changes.

# 4.2 Hypothesis Analysis

Unstandardized Coefficients		Standardized Coefficients			95% Confidence	e Interval for B		
Model		В	Std. Error	Beta	t	Sig.	Lower Bound Upper Bour	
1	(Constant)	3.189	.451		7.078	.000	2.299	4.080
	Age	.017	.094	.015	.178	.859	169	.202
	Gender	304	.227	111	-1.341	.182	753	.144
	Education	.157	.119	.112	1.317	.190	079	.393
	Average Monthly Income	.043	.099	.038	.435	.664	153	.239

Coefficients

#### Table 1. One can retrieve all kinds of accessible information timely through e-banking facility

a. Dependent Variable: One can retrieve all kind of accessible information timely through e-banking facility

**Regression Equation** 

$$Y = 3.189 + 0.017 x_1 - 0.304 x_2 + 0.157x_3 + 0.043 x_4$$
(1)

Decision: The P-values of Age, Gender, Education and Average monthly income are 0.859, 0.182, 0.190 and 0.664 consecutively which are greater than  $\alpha$ - value (0.05). So H<sub>o</sub> is not rejected. Here, we can see that Age, Gender, Education and Average monthly income are not significantly influencing on the dependent variable.

Table 2. The E-banking transactions are not quite secure in our country

		Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for E			
Model		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound		
1	(Constant)	2.738	.459		5.960	.000	1.830	3.645		
	Age	.107	.096	.096	1.116	.266	082	.296		
	Gender	.288	.231	.103	1.245	.215	169	.745		
	Education	141	.122	098	-1.161	.247	381	.099		
	Average Monthly Income	.019	.101	.017	.191	.849	181	.219		

a. Dependent Variable: The E-banking transactions are not quite secure in our country

**Regression Equation** 

$$Y = 2.738 + 0.017 x_1 + .288 x_2 - .141x_3 + .019 x_4$$
 (2)

Where,  $x_1 = Age$ ,  $x_2 = Gender$ ,  $x_3 = Education$ ,  $x_4 = Average$  monthly income

Decision: From the above table we can see that Age: The P-value (0.266), Gender: The P-value (0.215), Education: The P-value (0.247) and Average monthly income: The P-value (0.849). Here all the P-values are greater than  $\alpha$ - value that is 0.05. So H<sub>o</sub> is accepted. Those independent variables do not have adequate control over the statement.

Table 3. E-banking facilities are quite attractive if the costs of services are reduced

Coefficients <sup>a</sup>										
Unstandardized Coefficients		Standardized Coefficients			95% Confidence	e Interval for B				
Mode	I	В	Std. Error	Beta	t	Sig.	Lower Bound Upper Bou			
1	(Constant)	3.912	.463		8.452	.000	2.997	4.827		
	Age	.107	.096	.095	1.107	.270	084	.297		
	Gender	.159	.233	.056	.682	.496	302	.620		
	Education	231	.122	159	-1.885	.061	473	.011		
	Average Monthly Income	.066	.102	.057	.648	.518	135	.267		

a. Dependent Variable: E-banking facilities are quite attractive if the costs of services are reduced

Coofficiente

**Regression Equation** 

$$Y = 3.912 + 0.107 x_1 + 0.159 x_2 - 0.231x_3 + 0.066 x_4$$
(3)

Where,  $x_1 = Age$ ,  $x_2 = Gender$ ,  $x_3 = Education$ ,  $x_4 = Average$  monthly income

Decision: The P-values of Age, Gender, Education and Average monthly income are 0.270, 0.496, 0.061 and 0.518 consecutively which are greater than  $\alpha$ - value (0.05). So H<sub>o</sub> is not rejected. These independent variables do not have enough capability to estimate the statement. Those above mentioned variables are not good estimators of that statement but education is almost significant at 0.061.

Table 4. Common understanding about E-banking facilities is not clear due to its continual changes

		Unstandardized Coefficients		Standardized Coefficients			5% Confidenc	e Interval for	
Mode	I	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	
1	(Constant)	3.257	.419		7.780	.000	2.430	4.084	
	Age	.094	.087	.093	1.080	.282	078	.266	
	Gender	.233	.211	.092	1.107	.270	183	.650	
	Education	061	.111	047	553	.581	280	.158	
	Average Monthly Inco	102	.092	098	-1.112	.268	285	.080	

Coefficients

a. Dependent Variable: Common understanding about E-banking facilities is not clear due to its continual changes

#### **Regression Equation**

$$Y = 3.257 + 0.094 x_1 + 0.233 x_2 - 0.061x_3 - 0.102 x_4$$
(4)

Where,  $x_1 = Age$ ,  $x_2 = Gender$ ,  $x_3 = Education$ ,  $x_4 = Average$  monthly income

Decision: From the above table we notice that the P-values of Age, Gender, Education and Average monthly income are 0.282, 0.270, 0.581 and 0.268 respectively. Here all the P-values are greater than  $\alpha$ - value that is 0.05. So H<sub>o</sub> is accepted. Age, Gender, Education and Average monthly income are not the key issues of controlling the dependent variable.

#### 5. Conclusion

In that moment, almost all types of bank are tried to provide e-banking system to their customers. But due to slow Internet speed and lack of knowledge on e-banking, the customers don't get the same types of facility of e-banking system and it differs the perception on e-bank from person to person. In this paper, we mainly tried to find out those issues. In our research we find the Age, Gender, Education and Average monthly income varies the perception on e-banking system then the others aged people. So they try to use all types of facilities from e-banking system. On the other hand, the persons, who are more educated and have more average monthly income, are feeling more secure to use e-banking system. People, who are more educated, can easily understand the changes and use e-banking system without hesitation. They also want to spend more money for online banking services. We can able to change the perception on e-banking system among common people.

## References

Australian	Bureau	of	Statistics.	(2010-2011).	Retrieved	from		
http://www.abs.gov.au/ausstats/abs@.nsf/0/ACF271EB9B03C086CA25796600152C94?opendocument								
BBA.		(2014).		Retrieved		from		
https://www.bba.org.uk/news/press-releases/britains-bank-customers-use-Internet-banking-7-billion-times-i								
n-just-one	-vear/#							

Brodie, R. J., Winklhofer, H., Coviello, N. E., & Johnston, W. J. (2007). Is e-marketing coming of age? An Examination of the Penetration of e-marketing and Firm Performance. *Journal of Interactive Marketing*, 21, 2-21. http://dx.doi.org/10.1002/dir.20071

Christopher, G., Mike, C., Visit, L., & Amy, W. (2006). A Logit Analysis of Electronic Banking in New-Zealand.

International Journal of Bank Marketing, 24, 360-383. http://dx.doi.org/10.1108/02652320610701717

- De Young, J. (2001). The Internet's place in the banking industry. Chicago Fed Letter, No. 163:1-4. Retrieved from http://www.chicagofed.org/digital\_assets/publications/chicago\_fed\_letter/2001/cflmar2001\_163.pdf
- Easingwood, C. J., & Storey, C. D. (1993). Marketplace success factors for new financial services. *Journal of Services Marketing*, 7(1), 41-54. http://dx.doi.org/10.1108/08876049310026097
- Egwali Annie Oghenerukevbe, D. M. E. (2008). Customers Perception of Security Indicators in Online Banking Sites in Nigeria. *Journal of Internet Banking and Commerce*, 13(3).
- Gates, B. (2008). *Banking is essential, banks are not*. Retrieved from http://www.symbioticsgroup.com/media/62172/banking%20is%20essential,%20banks%20are%20not%20-%20-%20bilan.pdf
- Hua, G. (2009). An Experimental Investigation of Online Banking Adoption in China. Journal of Internet Banking and Commerce, 14(1)
- Huda, S., Momen, M. A., Ahmed, M. (2004). On Line Banking System. Finance and Banking, 6(1&2)
- Jeevan M. T. (2000). *Only Banks-No Bricks*. Voice and Data, November 11th, 2000. Retrieved from http://www.voicendata.com/content/convergence/trends/100111102.asp
- Kalakota, R., & Whinston, A. B. (1996). *Electronic Commerce: A Manager's Guide* (2nd ed.). Addison Wesley, Harlow.
- Karjaluoto, H., Mattila, M., & Pento, T. (2002). Factors underlying attitude formation towards online Internet banking in Finland. *International Journal of Bank Marketing*, 20(6), 261-272. http://dx.doi.org/10.1108/02652320210446724
- Laforet, S., & Li, X. (2005). Consumers' Attitudes Towards Online And Mobile Banking In China. *International Journal of Bank Marketing*, 23(5), 362-380. http://dx.doi.org/10.1108/02652320510629250
- Mamun, S. A., & Sharmin, N. (2011). ASA University Review, Center for Socio Economic Research (3rd ed.).
- Mia, A. H., Rahman, M. A., & Debnath, N. C. (2007). Consumer behavior of Online Banking in Bangladesh. *Journal of Business Studies*, 27(2).
- Mia, R., & Uddin. (2007). E-banking: Evolution, Status and Prospects. *The Cost and Management*, 35(1), 36-48. http://dx.doi.org/10.1109/ICCITechn.2014.6997303
- Nair, A. (1999). *Indian Internet banking still nascent*. Asia Internet news, May 12th, 1999. Retrieved from http://www.asia.Internet.com/asianews/print/0,,161 648221,00.html.
- National Office for the Information Economy (NOIE). (2000). *Banking on Internet*. NOIE, Australia. Retrieved from http://www.noie.gov.au/projects/E-Commerce/banking/personal\_banking\_online.html
- Nyangosi, R., Arora, J. S., & Singh, S. (2009). The evolution of e-banking: A study of Indian and Kenyan technology awareness. *International Journal of Electronic Finance*, 3(2). http://dx.doi.org/10.1504/IJEF.2009.026357
- 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. http://dx.doi.org/10.1108/10662240410542652
- Sahlen, A. (2002). Foreign Bank's Entry into the Baltic States Banking Market: Swedbanks Experience. A paper presented on the conference on Financial sector reforms in Central and Eastern Europe: The impact of foreign banks entry, Tallinn.
- Singhal, D., & Padhmanabhan, V. (2008). A Study on Customer Perception towards Internet Banking: Identifying major contributing factors. *The Journal of Nepalese Business Studies, 1*, 101-111. http://dx.doi.org/10.3126/jnbs.v5i1.2088
- Statista. (2014). Retrieved fromhttp://www.statista.com/statistics/222286/online-banking-penetration-in-leading-european-countries/
- Stewart, K. (1999). Transference as a means of building trust in World Wide Web Sites. Proceedings of the 20th ICIS, Charlotte, North Carolina.32.
- Walker, S. (2014). 2014 European Online Banking Functionality Benchmark. Forrester Research.

# Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).