

The Impact of Electronic Banking Services on Bank Transaction: A Study on State-Owned Commercial Banks in Bangladesh

Beplob Chandra Das¹, Md . Hasnain Ahamad², Tushar Hossain³

¹*MBA in Accounting and Information Systems, Patuakhali Science and Technology University, Bangladesh*

²*MBA in Human Resource Management, Patuakhali Science and Technology University, Bangladesh*

³*MBA in Marketing, Institute of Business Administration, University of Rajshahi, Bangladesh*

Abstract-The objective of this study is to evaluate the impact of electronic banking services on bank transaction in state-owned commercial banks in Bangladesh and to examine the relationship between the electronic banking services and bank transaction. In the banking world, Electronic banking has added a new dimension. In this study, quantitative research method was followed and required data were collected through questionnaire. This study was conducted on clients of state-owned commercial banks in Bangladesh and 100 samples were taken conveniently to conduct this study. Different statements about electronic banking services such as ATM service, online banking, and mobile banking were given in the questionnaire. Linear regression and Pearson correlation were used for data analysis. The study found that ATM service, online banking, and mobile banking have positive impact on bank transaction and there is a positive relationship among ATM service, online banking, mobile banking, and bank transaction. To increase both the financial activity of the bank as well as number of its clients, electronic services have contributed continuously.

Keywords: *Bank, Bank transaction, ATM, Online banking, Mobile banking.*

INTRODUCTION

A bank is a place to perform business activity of secure and receives money by other persons. This performance is conducted by law. The money that takes as safekeeping bank may provide loans to clients for a legal understanding with benefits and interest. So many diverse alternatives are given to their customers so the customer gets to encouraged. The customer benefits and services may not be the same on each branch of comparatively same bank. To deal with

essential banking activities mainly receiving the deposits from clients, each branch of every bank needs to operate the general banking department. General banking department is the inception point of all banking operation. This department builds the management of account opening, security instruments handling, deposit, cash, customer services, locker facilities, clearing house, bills, and other ancillary services of the bank besides foreign and advance trade. It opens new accounts, takes deposits, issues bank draft and pay order remits funds, honor cheque etc. Since the inauguration, banks have witnessed many improvements in various fields and have passed through a number of positions. These improvements covered administrative fields, where services are rendered by these banks to their clients, whether in provision of service perspective, giving of loans or presenting finance. With number of benefits, it has helped the banks that made many people choose to deal with them for governing their investments and funds. Furthermore, to route for developments and improvements for gaining ability in businesses transactions so, as to achieve a huge possible number of clients the fierce competition among the banks propelled many banks. Electronic banking would play important role and deduct the cost of operations to develop the position of a bank and management system [1]. Besides, a research stated that the level of advantage they noticed in the service they meet specially impacts the customer perception of service [2]. Moreover, to mitigate chances of manipulation and threats technological regulation to an extent has given security in different profession likewise in economic sectors also has organized system [3].

The electronic banking services have emerged with a view of securing ability and competency in transactions as a result of the large improvements in technology [4]. The larger banks have penetrated internet usage into its methods and inaugurated to manage and prefer it to their clients to allure more clients since Internet has become a grab of all people. A study showed that integrating the build customer relationship and electronic system can incite clients [5]. Electronic systems are required in banks for building the processes effective and minimize the level of work manually enacted by the personnel or employees. Moreover, the electronic systems in banks largely affect the customer engagements in transaction, where they hold the access to perform transaction process [6]. The objective of this study is to evaluate the impact of electronic banking services on bank transaction in state-owned commercial banks in Bangladesh and to examine the relationship between the electronic banking services and bank transaction.

E-BANKING

In various ways, experts define the idea of electronic banking. Electronic banking is defined by Daniel as the settlement of banks' services and information by banks to customers via various delivery platforms that can be used with various terminal instruments such as telephone or digital television, mobile phone and personal computers with browser or desktop software [7]. For offering of banking products and services through electronic media, such as the cell phone, the telephone, the internet etc. E-banking is a specific term to the experts. The scope and idea of e-banking is still amplifying. An efficient accounting system and payment is facilitated by it improving the speed of delivery of banking services greatly [8].

TYPES OF E-BANKING

To give banking service to clients, various electronic banking delivery media are used by the banks. Among them, banks widely use ATM, internet banking, mobile banking and POS and these are discussed below.

ATM: Automated Teller Machine (ATM) is a machine where without going in to the banking hall cash withdrawal can be occurred by using the machine.

Funds are transferred and recharge cards are sold by it; Clients can access it 24 hours/7 days with account balance investigation [9].

Internet Banking: To conduct financial transactions on a secure website conducted by the institution, Internet banking allows clients of a financial institution, which can be a virtual or retail bank, society or credit union. Various transactions may be comprised by it related to online usage [10].

POS: Point of sale (POS) also often referred to as checkout or point of purchase (POP) is the position where a transaction occurs. The hardware and software is referred as A 'checkout' used for checkouts or more generally to a POS terminal, the same of an electronic cash register [11].

Mobile Banking: The term, Mobile banking, is used for managing credit applications, balance checks, payments, account transactions, and other banking transactions through a mobile device such as a Personal Digital Assistant (PDA) or mobile phone [12].

CUSTOMER SATISFACTION IN E-BANKING

Satisfaction is an overall customer outlook and an emotional reaction towards a service provider or to the difference between what they receive and what is anticipated by customers [13]. During the recent years, the rules and operations in the banking industry have been dramatically changed by the improvements of e-channels [1]. A researcher said that the e-banking services have blossomed quickly while the industry has moved instantly to enlarge and offer new banking products and services via e-channels for clients [14]. Today, to emphasize customer-oriented services, many financial institutions are enterprising. For this sake, to implement new banking services in order to improve and keep better relationships with clients, it is very crucial. Customers' amusement with banking service can greatly show the bank performances. It is known that banks will have an obvious marketing ascendancy by achieving higher customer satisfaction because the larger customer satisfaction is included with increased cross-sell rations, higher revenues, bigger market share and higher customer retention [15]. It shows that customer amusement was treated by

cost efficiency, easy to use and responsiveness and security. Therefore, for better ATM services to serve their customers banks should concentrate their efforts on these dimensions [16]. Bank transaction will vary actual manifestation of the state of contentment from service to service, person to person, product to product. Corroborates physical factors, psychological, economic factors can change the level of satisfaction. The quality of the service is one of the major elements of customer satisfaction and many experts and researchers showed that, using communication technology (ICT) and advanced information can increase service quality [13]. Quicker, speedier and a dependable service to the clients can be delivered by E-banking for which they may be relatively pleased than that of manual system of banking.

E-banking system not only gets its suitable dealings with clients, it can create latest viable return [17]. Study showed that for the satisfaction of the clients learning, authenticity and feedback are very essential [18]. A researcher found that the improvement of electronic services as required currently attainable research findings about acceptance of electronic banking are not enough in Ethiopia [19]. The relationship between customer satisfaction in e-banking and empathy, responsiveness, authenticity, assurance is revealed by Doll [20]. A study showed that, lack of legal security risk, regulatory frame work, and lack of trust, lack of ICT infrastructure and absence of competition between foreign banks and local banks are the major constraints which are faced by Ethiopian banking industry in the adoption of electronic banking [21].

CHALLENGES AND OPPORTUNITIES OF E-BANKING

It has been brought with new objections for bank management, supervisory and regulatory authorities by the changing economic landscape. To give banking services with the essential security, the leading ones stem from increased cross-border transactions resulting from drastically the greater ease of banking activities and lower transaction costs and from the faith on technology [22]. Giving compatible services to customers irrespective of the kind of media, they use is the primary challenge for banks. If a bank counts on more electronic delivery channels, it can be the strong for renowned risks. Some serious conjugations are

available in international e-banking. It is a general thought that to handle cross-border banking electronically, low transaction costs potentially make it much easier. To reap economies of scale, cross-border operations give a scope for many banks. But a heavier degree of cross-border custody is needed by cross-border finance. To expand to similar supervisory disclosure and rules and some harmonizing of legal, taxation and accounting formulations such cooperation may need quickly [23]. The country is facing some obstacles like low level of economic elementary knowledge of the public, capacity of financial institutions level of readiness and to give service, infrastructure, and insufficient cash flow in rural areas presence of a few branches, limited potential agents, and in rural areas. Other troublesome issues are legal and related issues, the consideration of looking in to the role of newly outgoing third party technical providers, widening the scope of mobile banking service and reconsidering pre-paid balance requirements [24].

But, in recent years, for the developments of ICT infrastructures hoping for Bangladesh to leapfrog into the information age, the government has a huge idea. Many obstacles are faced by banking in Bangladesh to fully adopt and adopt e-banking application and seize the chances presented by ICT applications in general. Major obstacles for e-banking applications are: poorly developed telecommunication infrastructure and low level of internet penetration, internet and online payments impede smooth development and lack of infrastructure for telecommunications, and developments of e-commerce in Bangladesh. For smoothly managing e-banking, lack of reliable power supply is a main obstacle. Due to lack of knowledge on the advantages of new technologies, lack of trained personnel in key areas, fear of risk, tendency to be content with the present structures and people Resistance to changes in technology among clients and staff may be resistance to new transfer systems [25].

METHODOLOGY OF THE STUDY

In this study, quantitative research method was followed and required data were collected through questionnaire. The current research is conducted in the previous model but the change in location. This study was conducted on clients of state-owned commercial banks in Bangladesh and 100 samples were taken

conveniently to conduct this study. Collected data were analyzed by using computer software of Statistical Package for Social Science (SPSS version 16.0). Pearson correlation analysis and regression were used to analyze the data with regard to the objectives of the study. For this study, a five percent (0.05) level was determined as the accepted level of significance for statistical analysis. Three hypotheses are developed to analyze the relationship between the dependent variable (bank

transaction) and independent variables (ATM Services, Online Banking, and Mobile Banking). The hypotheses of this study are

- H1: ATM service has a significant positive relationship with bank transaction.
- H2: Online Banking has a significant positive relationship with bank transaction.
- H3: Mobile Banking has a significant positive relationship with bank transaction.

RESULTS AND DISCUSSION

Pearson Correlation Analysis

		Banking Transaction	Online Banking	Mobile Banking	ATM Service
Bank Transaction	Pearson Correlation	1	.900**	.841**	.989**
	Sig. (2-tailed)		.000	.000	.000
	N	100	100	100	100
Online Banking	Pearson Correlation	.900**	1	.869**	.922**
	Sig. (2-tailed)	.000		.000	.000
	N	100	100	100	100
Mobile Banking	Pearson Correlation	.841**	.869**	1	.830**
	Sig. (2-tailed)	.000	.000		.000
	N	100	100	100	100
ATM Service	Pearson Correlation	.989**	.922**	.830**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	100	100	100	100
**. Correlation is significant at the 0.01 level (2-tailed).					

The above table indicates the Pearson correlation. The Pearson correlation shows the relationship between Bank Transaction, ATM Service, Online Banking, and Mobile Banking. The result Shows that there is a

strong positive relationship between Bank Transaction and Online Banking($r=.900, p<0.01$); Mobile Banking($r=.841, p<0.01$); ATM($r=.989, p<0.01$).

REGRESSION ANALYSIS AND HYPOTHESIS TEST

- H1: ATM service has a positive relationship with bank transaction.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.113	.066		-1.722	.088
	ATM Service	1.018	.015	.989	67.135	.000
a. Dependent Variable: Bank Transaction						

Through coefficients analysis, it is found that calculated p value is significant at 5% level of significance that means hypothesis is accepted. So it is concluded that ATM service has a positive relationship with bank transaction.

- H2: Online Banking has a significant positive relationship with bank transaction.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.711	.245		-2.901	.005
	Online Banking	1.140	.056	.900	20.33	.000
a. Dependent Variable: Bank Transaction						

Above table shows that calculated p value is significant at 5% level of significance that means hypothesis is accepted. So it is concluded that Online Banking has a positive relationship with bank transaction.

➤ H3: Mobile Banking has a significant positive relationship with bank transaction.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.477	.309		-1.544	.126
	Mobile Banking	1.096	.071	.841	15.36	.000
a. Dependent Variable: Bank Transaction						

According to statistical analysis in this section, calculated p value is significant at 5% level of significance that means hypothesis is accepted. So it is concluded that Mobile Banking has a positive relationship with bank transaction.

FINDINGS OF STUDY

It has been noticed that customers are fairly satisfied with the electronic banking services of the bank from the statistical analysis. Among the respondents, majority think that electronic banking is more suitable than manual banking. Majority of the respondents believe that electronic banking services have saved their time and made their transaction more easy and satisfactory. Most of respondents are satisfied with the electronic banking services offered by the bank. The hypothesis testing result shows that ATM Service, Online Banking and Mobile Banking have significant positive impact on Bank Transaction. Pearson Correlation coefficient shows that there is a strong positive relationship between the bank transaction, ATM Service, Online Banking and Mobile Banking.

CONCLUSION

Electronic Banking service is the key to long term success of the firm and is the main reason for and the driving force behind bank’s functioning. This study showed that there are statistical significant and strong positive relationship between Online Banking, Mobile Banking, ATM Services, and Bank Transaction given by the state-owned commercial banks. Bankers should identify which customers with which demographic characteristics are more sensitive to e-banking service system and the banks should work much in expanding the number of clients from all aspects that is from age, educational status, gender, occupationally and should do good job in building businessmen to be the clients of e-banking and also should keep all rounded

personal profile of clients to retrieve easily whenever needed. Furthermore, the customers become more contented with the quality of electronic banking service such as; phone banking services, web-services and automated teller machine services. Further studies could be expanded to other banks, and other elements could be addressed such as information reliability, speed of transactions and security ease of use, of the transactions in the banking sector.

REFERENCE

- [1] Hossain, M.M., et al., *Electronic-banking services: A study on selected commercial banks in Bangladesh*. Asian Business Review, 2013. 3(1): p. 53-62.
- [2] Baten, M.A. and A.A. Kamil, *E-banking of economical prospects in Bangladesh*. Journal of internet Banking and Commerce, 2010. 15(2): p. 1-10.
- [3] Md, A.B., A.K. Anton, and P. Sanjida, *Adoption of e-banking in Bangladesh: An exploratory study*. African journal of business management, 2010. 4(13): p. 2718-2727.
- [4] Titu, M.A.S. and M.A. Rahman, *Online banking system-its application in some selected private commercial banks in Bangladesh*. IOSR Journal of Business and Management (IOSR-JBM) e-ISSN, 2013: p. 37-44.
- [5] Rahman, B., *Influence of E-banking Services towards the Profitability of Commercial Banks in Bangladesh: Some Observations*. ASA University Review, 2016. 10(2).
- [6] Rahman, H., N. Uddin, and S.A. Siddiqui, *Problems and Prospects of E-Banking in Bangladesh*. International Journal of Scientific and Research Publications, 2012. 2(7): p. 1.
- [7] Yitbarek, S., *The impacts of e-banking services on customer satisfaction: the case of selected commercial banks in Addis Ababa*. 2015, Master

- thesis Addis Ababa University, Addis Ababa, Ethiopia.
- [8] Mohiuddin, M., *Trend and Development of E-Banking: A Study on Bangladesh*. IOSR Journal of Business and Management (IOSR-JBM), 2014. 16(5): p. 16-24.
- [9] Ahmad, A. and H.A. Al-Zu'bi, *E-banking functionality and outcomes of customer satisfaction: an empirical investigation*. International journal of marketing studies, 2011. 3(1): p. 50-65.
- [10] Bony, S.Z. and F. Kabir, *Practice of E-banking in commercial bank: An empirical study in Bangladesh*. International Journal of Business and Social Research, 2013. 3(5): p. 168-177.
- [11] Uddin, M.B., et al., *Electronic banking products and services of private commercial banks in Bangladesh: Present status and challenges*. International Journal of Business and Management Review, 2016. 4(8): p. 44-55.
- [12] Uddin, M.M., M.A. Khan, and N. Farhana, *Banking services and customer perception in some selected commercial banks in Bangladesh: a comparative perspective*. Indonesian Management and Accounting Research, 2014. 13(1): p. 1-15.
- [13] Sadekin, M.S., S.N. Mukta, and M.A.H. Shaikh, *Customers' trust on e-banking system in Bangladesh*. International Journal of Economics, Finance and Management Sciences, 2019. 7(6): p. 178-186.
- [14] Islam, M.M., *Challenges and Prospects of Internet Banking in Bangladesh: Banker's (Service Providers) Point of View*. IJCST, 2015. 6(2).
- [15] Islam, M.S. and P.C. Das, *Green banking practices in Bangladesh*. IOSR Journal of Business and Management, 2013. 8(3): p. 39-44.
- [16] Ullah, M.M., *Green Banking in Bangladesh-A comparative analysis*. World Review of Business Research, 2013. 3(4): p. 74-83.
- [17] Sadekin, M. and M. Shaikh, *Current status of e-banking practices in Bangladesh*. Scholar Journal of Business and Social Science, 2015. 1(1): p. 53-64.
- [18] Bultum, A.G., *Factors affecting adoption of electronic banking system in Ethiopian banking industry*. Journal of Management Information System and E-commerce, 2014. 1(1): p. 1-17.
- [19] JOFFE, M.M., *Effect of E-Banking Service Quality on Customer Satisfaction: The Case of Commercial Bank of Ethiopia Arba Minch Branches*. 2018, Thesis for Degree of Masters of Business Administration (MBA), Arba Minch
- [20] Worku, G., A. Tilahun, and M. Tafa, *The impact of electronic banking on customers' satisfaction in Ethiopian banking industry (The Case of Customers of Dashen and Wogagen Banks in Gondar City)*. Journal of Business & Financial Affairs, 2016. 5(2): p. 1-18.
- [21] Damtew, T., *Effects of Electronic Banking on the Financial Performance of Commercial Banks in Ethiopia*. 2016, Addis Ababa University.
- [22] Karlan, D., et al., *Research and impacts of digital financial services*. 2016, National Bureau of Economic Research.
- [23] Barua, D. and S. Akber, *CUSTOMERS'ASSESSMENT ON E-BANKING SERVICE QUALITY IN BANGLADESH: CHALLENGES AND STRATEGIES*. American Finance & Banking Review, 2021. 6(1): p. 14-25.
- [24] SISAY, E., *THE EFFECT OF DIGITAL BANKING ON CUSTOMER EXPERIENCE: THE CASE OF SELECTED COMMERCIAL BANKS IN ADDIS ABABA CITY*. 2021, ST. MARY'S UNIVERSITY.
- [25] EPHREM, S., *IMPACT OF ELECTRONIC BANKING SERVICE ON CUSTOMERS'SATISFACTION IN ADDIS ABABA (THE CASE OF SELECTED COMMERCIAL BANKS)*. 2016, St. Mary's University.