

## Electronic banking in Bangladesh: An analysis of present scenario, prospects and problems

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### Abstract

Banking industry of has developed to a large extent than before. It has established an excellent image in its different activities including electronic banking. Now contemporary banking services have launched by several foreign, local private commercial banks as well as nationalized banks. Electronic banking is one of the important additions in banking sector, especially in Bangladesh. This paper tried to reveal the present status of electronic banking in Bangladesh. The study found poor technological infrastructure is the main obstacle for internet banking. Banks are still unwilling to use full internet base banking activities. Nationalized commercial banks are far behind Compared to private and foreign banks in implementing internet banking system in banking transactions. The Government should give emphasis on internet banking services by developing the technological infrastructure of Bangladesh, especially at the rural areas.

**Keywords:** Electronic Banking, Bank, Prospects, Problems, Bangladesh

### 1. Introduction

Bangladesh is still a step behind to gain the opportunity of e-commerce. Though, banking sector has been introducing e-banking services which play an important role in spreading e-commerce. Internet technology has opened a new possibility of e-commerce, creating huge opportunities for banks domestically and internationally.

In Bangladesh, foreign banks are providing services with our nationalized, private and specialized banks, though; the banking services of nationalized, private, and multinationals are still a step below. Foreign banks are offering better services than Bangladeshi banks. They offer better customer services, personal and financial services, corporate services, trade services with the help of efficient and well trained employees as customer always demands better services, security, and round the clock banking. Foreign banks are emphasizing customers' needs and demand, and trying to offer and provide the demanded services and introducing their offering based on the desires of present and prospective customers.

As a result, it helps to lift up gross domestic product of the Bangladesh. Governments as well as different international authorities have also recognized that poor banking technology creates obstacle on economic growth of Bangladesh. E-banking is a way of increasing the economic growth of Bangladesh. As information free flow and reliability of information are gaining more importance due to globalization competition, Bangladeshi banks have to compete in the global market to serve business organizations and other individual clients 24/7. Access to computer would be advantageous to Bangladesh like any other country. Social and economic inequality and lack of Internet accessibility is a great barrier towards customer dissatisfaction which ultimately results in negative customer relationship management. As a result, it would create a negative impact on economic development of Bangladesh.

### 2. Objectives of the study

This study has undertaken to achieve the following objectives:-

1. To evaluate the existing Electronic banking scenario in Bangladesh.
2. To explore the prospects and problems of Electronic banking in Bangladesh context.
3. To explore the Structure of electronic banking in Bangladesh.
4. To explore the electronic services offered by various bank in Bangladesh.
5. To find out the common features of electronic banking in Bangladesh.

### Literature Review

Information technology implementation and usage of Information System in the workplace has been a crucial apprehension to many practitioners and researchers due to its importance in technology dissemination. In last two decades studies have given some theoretical frameworks for research in the acceptance of information system and information technology (Moore, 1987; Taylor and Todd, 1995). Amongst them, the Technology Acceptance Model (TAM) is considered the well-built, practical, and leading in clarification IT/IS Adoption Behavior (Davis, 1989; Mathieson, 1991) <sup>[3,4]</sup>. TAM was proposed by Davis (1989) <sup>[3,4]</sup>. It pioneered two important constructs – perceived usefulness and perceived ease of use.

Buffam (2000) <sup>[6]</sup> described that companies which build the better e-business solutions will do better than their competitors. Companies that develop the best e-business solutions will transform themselves into dynamic enterprises. Companies that prefer not to embrace e-business, or do so unsuccessfully, will underperform or be driven out of business.

Turban *et al.* (2000) <sup>[7]</sup> viewed that some managerial issues are very important like Focus of Electronic commerce management, Sales promotion, Buying process redesigning, JIT delivery, Provision of solutions and Business ethics.

Rahman (2001-2002) <sup>[8]</sup> observed that issues connecting to electronic fund transfer need security, accessibility, dependability, non-reputability and audibility. He recommended for right control and competent security

measures and also for suitable employment of review process in the e-commerce system.

Ali (2003) <sup>[10]</sup> described that Bangladeshi companies and organizations have several problems to start full swing e-business. These comprise inadequate resources, lack of forwardness in technology, decision-making incompetency, socio-infrastructure problem like corruption, elusion civilization law and categorize state, extensive corruption, strike etc. which penetrate for a long time.

Ali, Mohsin, and Yasmeen (2004) <sup>[13]</sup> observed that maximizing e-business efforts to focus on knowledge transfer, information dissemination, and technical assistance are required. Steps need to create right awareness among different actions of e-business.

Huda, Momen and Ahmed (2004) <sup>[12]</sup> suggested that the banking sector in Bangladesh is clearly identifying the significance of information technology to their constant achievement.

Hoq, Kamal and Chowdhury (2005) <sup>[15]</sup> described that the main reason why e-commerce is growing so quickly is its significant impact on expenditures related with carrying out of sales, inventories, procurement, intangibles like banking, and delivery costs. If these reductions become persistent, e-commerce has the potential to be the application that guides in the large productivity gains. Achieving these gains is, therefore, subject to number of factors, including entrée to e-commerce systems and the required skills. Though, what is exceptional about ecommerce over the Internet and the competency gains is that it pledges the top placed on sincerity. To obtain the possible cost savings entirely, firms have to be eager to unlock their internal systems to suppliers and customers. This lift up strategies regarding security and probable challenging competitive effects as firms incorporate their operations more openly.

Uddin and Islam (2005) <sup>[14]</sup> observed that the different projections of ICT in human life appeal a winning case for institutional incorporation of ICT related mechanism in rural support programs taken by Governments and NGOs.

Chaffey (2006) <sup>[16]</sup> contracted with tactic and applications of e-business and e-commerce in a logical but vigorous manner. He strained that e-business and e-commerce were very important for management implications as such a link leading edge research and practice was required.

Mia, Rahman and Debnath (2007) <sup>[18]</sup> observed that e-banking is the newest development by banks in marketing financial services, where banks are using the web to get advantage of the Internet's supremacy.

Pires and Stanton (2007) <sup>[17]</sup> observed that plan wise government has to identify that the capability of countries to involve in e-commerce is attached both directly and indirectly to their magnetism for FDI.

Ahmed and Islam (2008) <sup>[19]</sup> argued that accepting e-banking services, banks in developing countries are faced with strategic options between the selection of delivery channels and the level of superiority of services provided by delivery channels.

Shamsuddoha (2008) <sup>[20]</sup> observed that currently in Bangladesh, banking industry is mature to a large extent than in the previous period. It has developed excellent image in their different activities including electronic banking. Now contemporary banking services have been initiated by some foreign and new local private commercial banks. E-banking is one of the most demanded and newest technologies in banking

sector.

Ahshan (2009) argued that online dealing would increase the GDP growth and hence, help Bangladesh to achieve the Millennium Development Goals (MDGs). In the age of globalization, the Internet makes the world smaller and e-commerce helps shopping from home. E-commerce makes business possible to customers over the internet. In ecommerce, customers can buy goods and services over the Internet.

Islam and Yang (2009) <sup>[25]</sup> commented that service quality satisfaction and informational reliance had important arbitrating things on the Balance score card performance process. This two arbitrating characters clarify that, when an organization creates and raises informational trust and service quality satisfaction, the results guide to a positive customer interaction relationship. This could help the organization to attain greater degree for Balance score card performance assessment.

Nyangosi, Arora, Singh (2009) <sup>[26]</sup> commented that by using electronic channels banking has gained ever-increasing popularity in modern days. This system, commonly known as 'e-banking', provides alternatives for quicker delivery of banking services to a large range of customers. In general result specifies that customers in India and Kenya have developed affirmative approach and they have given a lot importance to the emergence of e-banking.

Shah and Clarke (2009) <sup>[23]</sup> focused on human, functional, decision-making, and strategic organizational matters of e-banking. They viewed that e-banking activities are capable of help to increase speed of doing business by using electronic means.

Rahman (2010) <sup>[27]</sup> who was the Governor of Bangladesh Bank commented that Bangladesh Bank has attained a significant landmark in the trade and business field, departing from traditional banking with the start of e-commerce recently; a huge pace towards digital Bangladesh. From the aforesaid literature review, it is understandable that e-banking can perform as a corresponding towards e-business. With the support of e-business the state can create chances as this will help both manufacturer and consumers. However these theoretical observations may not be practical in this country. In parallel, the study searches for to assess whether the country has proper infrastructure for doing e-banking. What are the statuses of e- banking of the country? Does e-banking actually performs as a supporting to e-business in Bangladesh? The study intends to examine foresaid questions.

### 3. Methodology of the Study

The study is based on secondary sources and primary sources. The study covered different foreign, private and public commercial banks, which mainly situated in the Sylhet city in Bangladesh. Some of the respondents were in the capital city of Dhaka as well as Chittagong. Data have been collected through a structured questionnaire. For collecting data from the respondents, the study used judgmental and convenience sampling technique. The survey was conducted on the basis of 500 customers' comments; those have been using on-line banking system. Though, on-line banking is mainly concentrated in the Dhaka city. However, in Sylhet city on-line banking system is also being expanded. Out of 500 respondents, 350 are from Sylhet city while 100 persons are from Dhaka city and 50 are from Chittagong city. Observations

through field study were obtained and are being reported at the present status of the on-line banking system.

The study also has reviewed different published articles, books, newspapers and websites. However, exact references are mentioned in this article. The study also collect related information regarding present status of the on-line banking through field visit in banks head offices and IT and MIS Department. Moreover, I also visited Central Bank, i.e. Bangladesh Bank to collect related information. The study mainly collects data on the following points: services provided by the banks, software used by the banks, present status of on-line banking in Bangladesh, facilities of on-line banking, problems facing by banks in effective implementation of on-line banking and future of on-line banking in Bangladesh.

### **Limitation of the study**

Interviewing target respondents adopted convenience sampling as alternative to random sampling, at some phases where respondents were inaccessible or not available. The study mainly focuses on Sylhet city though some data are collected from Dhaka as well as Chittagong city.

### **Present status of E-Banking in Bangladesh**

As a third world developing country, Bangladesh is far behind to reach the expected level of global banking system. According to a report published in The Daily Star (4th April, 2010) Bangladesh ranked 118th in the global Network Readiness Index in 2009-10 up from 130th a year ago, showing an upward trend in the information and communication technology sector.

### **Banking industry in Bangladesh**

Total numbers of Banks in Bangladesh are forty seven. Banking sector in Bangladesh on the basis of utilization of electronic devices can be subdivided into three groups:

- i. Foreign Commercial Banks and Private Commercial banks especially 2nd (except few banks) and 3rd generation Private Banks: Fully Online banking;
- ii. 1st generation private banks and some 2nd generation Private Commercial Banks: Medium range online banking system;
- iii. Nationalized Commercial Banks, Specialized Banks and Few foreign Bank branches of this subcontinent: Low grade online banking system. At present the banks in Bangladesh are using the limited electronic banking services. It is expected that bank can attain more profit and offer better services to its customers by, introducing on line banking facilities.

### **Online banking practice in foreign banks**

The foreign commercial banks operating in Bangladesh like Standard Chartered Bank, Citi Corp. N.A. and the HSBC are the pioneers to introduce the electronic banking facilities. They provide ATM, Debit Card, Credit Card, Home Banking, Internet Banking, Phone Banking, on line banking etc. services

### **Online banking practice in indigenous banks**

Among the indigenous banks, the Private Banks are ahead of the public banks. Prime bank Ltd., Dhaka bank Ltd., BRAC bank Ltd., Dutch-Bangla bank Ltd., Eastern and Mercantile bank Ltd., are already stepped on towards electronic banking facilities. Apart from these banks, Mutual Trust Bank Ltd. also introduced ATM service. Among the four Nationalized Commercial Banks (NCBs), Janata bank Ltd., has some access to the electronic banking facilities. Bangladesh Bank, the Central Bank of Bangladesh, is also trying to formulate the wide structure of electronic banking facilities. All of these private banks offering limited on line banking services. Most of these banks only offer services by providing ATM card. Most of them do not offer wide range of internet banking facilities which is the main advantages of e-banking. Can deposit money in any branch and withdraw money from ATM machine- is treated the best e-banking facility available in Bangladesh While electronic money transfer starts in a limited edition and Agrani bank Ltd., is also providing on line banking services in a limited scale. Rupali Bank Ltd. is also developing on line banking. BASIC bank which is 100 percent public owned but served as private sector banking has a technological advancement.

### **E banking software supplier**

Local software companies have been starting competition to supply useful complete banking software with all the basic features of banking module. However, many forms of electronic banking services are not possible to offer in Bangladesh at this moment due to the technology backwardness, infrastructural underdevelopment and legal infrastructure.

### **Bangladesh bank's stand in connection to E-banking**

According to the report published in The Financial Express (3rd November, 2009) Bangladesh Bank gave the ground breaking directives to commercial banks through a circular issued on 2<sup>nd</sup> Novemebr, 2009, saying that from now on their clients can pay power, water, gas and phone bills from bank accounts and transfer funds within a bank or to other banks. The central bank said that online payments will be treated like any other cash transaction although it reminded the banks that these money transfers would be regulated by the country's strict Anti-Money Laundering Act. Meanwhile, Bangladesh bank started automated 11 Clearing house on trail basis from 8th November, 2009. Bangladesh Bank also declared that the clearing house won't accept any cheque from 1st April 2010 if size of the cheque is not as per the guideline of the MICR system. But in developed nations MICR procedure is now replaced by more sophisticated procedure such as cheque truncation process. In Bangladesh digital divide among the Dhaka city and rest of the country is conspicuous. E-business as a whole is confined among very few business organizations and on line banking business is expediting process of the e-business of the country.

**Table 2:** Categorization of electronic banking services

Generation of electronic banking	Back-office	Front-office
First generation	Ledger Cash management Head office MIS	Cash dispensers
Second generation	Transaction Processing[offline] ACHs Generation of information for record keeping Fund transfer	Telephone bill payment POS systems Check verification ATMs Authorization
Third generation	On-line transaction processing Centralized processing at country level Internet banking Interbank transaction processing	Automatic Fund Transfers On-line Banking Home Banking electronic Direct Deposit Check Truncation Lock Box Check Truncation Electronic Fund Transfer Internet Banking

Source: Raihan, Ananya. 1998

**Electronic facilities given by different bank in Bangladesh**

The following Electronic facilities are providing by different Foreign and Private Commercial banks (PCBs) in Bangladesh: Bank accounts: Savings, Current, FDR, PDS, Term Deposit Scheme

All these accounts are maintained in electronic way for the sake of customer satisfaction in Bangladesh. People can deposit their money through electronic device and also can withdraw their money such way. These are the common bank accounts which maintained by the bank customer every now and then and bank is also given high priority or facilities in this regards to their customer.

**Special Services**

Some Banks render special services to the customers attracting other banks.

**Debit Point-of-Sale**

An advanced payment system which enables consumers to use an ATM Card to pay for goods and services, electronically debiting the cardholders account and crediting the account of the merchant.

**Cards: Credit/Debit Card**

There are two different types of card. One is debit which designate to withdraw own money from the bank in any time. Another one is a credit system which provided by bank to their customer. Customer can enjoy their credit amount while they are in shopping, withdraw cash etc.

**Internet Banking**

Customers need an Internet access service to handle this type of banking. As an Internet Banking customer, he/she will be given a specific user ID and a confidential/secret or secured password so that they can access to their own account. Here customer can able to see the ledger balances, transfer his money, request something towards bank, etc.

**Home Banking**

Home banking frees customers of visiting branches and most transactions will be automated to enable them to check their

account activities transfer fund and to open L/C sitting in their own desk with the help of a PC and a telephone. For example: HSBC is giving Hexagon facilities to their individual and corporate customer.

**Automated Teller Machine (ATM)**

Full abbreviation of ATM is “Automated Teller Machine” which acts like a teller point in a bank who takes and gives money over the counter. ATM is same as teller point but it run automatically through identity like card and password. It does not need any slip or Cheque but it is very much based on A/C holder’s ATM card and it’s Password. Those who are entitled for ATM card, bank has provided them a password against every single card. This is like a debit card. People can deposit their money in a bank account and they have entitled withdraw their money through ATM card, which is applicable for 24 hours a day and 365 days in a year. It has different name such as ATM, 24 hours banking card, money link card, e-cash, ready cash etc. In Bangladesh, some multinationals incepted the ATM booth in Dhaka since 1992-93. The Grind lays Bank was the pioneer in Bangladesh then after Standard Chartered Bank, American express Bank, HSBC, Bank Asia and seven others local private banks are the followers.

**Tele Banking**

Tele-Banking permit customers to get access into their respective banking information 24 hours a day. Subscribers can update themselves by making a phone call. They can transfer any amount of deposit to other accounts irrespective of location either from home or office.

**SWIFT**

SWIFT is a bank owned non-profit co-operative based in Belgium servicing the financial community worldwide. It ensures secure messaging having a global reach of 6,495 Banks and Financial Institutions in 178 countries, 24 hours a day. SWIFT global network carries an average 4 million message daily and estimated average value of payment messages is USD 2 trillion. SWIFT is a highly secured messaging network enables Banks to send and receive Fund Transfer, L/C related and other free format messages to and from any banks active in the network. Having SWIFT facility, Bank will be able to

serve its customers more profitable by providing L/C, Payment and other messages efficiently and with utmost security. Especially it will be of great help for our clients dealing with Imports, Exports and Remittances etc.

**Easy Pay Machine**

It is a mechanical device which can accepted utilities bill like land phone bills, cell phone bills, Gas bills, WASA-DESA bills etc. The day after tomorrow bank will report to the particular authority to give acknowledgement on behalf of their customer.

**Others**

There are some other electronic services like TV Banking, Mobile Banking; SMS Banking through cellular phone, Mail Banking etc is practicing ignorable way. But banks are trying hard to develop new products which can be done through electronic device like internet, telephone including cellular and mechanical devices.

**Prospects of E-banking in Bangladesh**

Internet Banking is new in our market. Only a few banks are now offering internet services in solving banking problems. Most of the banks are offering only accounting information online. Actual fund transfer and fund disbursement is not possible in all the banks that are offering internet services. So this product will enjoy the benefit of a first mover.

1. It is cheap both for the banks and the customers. The bank will be able to lower down the overhead costs and make more profit out of it. Internet banking will require less manual workers. Again the customers will be able to save time as well as money for their transaction needs.
2. Internet banking is convenient as the service is available all the time at just a click away.
3. Non-branch banking is becoming popular in our country. Many banks are now offering non-branch banking facilities. A person can withdraw or deposit money in any branch of the bank he has account with. So moving to internet banking will allow the banks to offer non-branch banking facilities.
4. In traditional system, to accomplish audit, government officials need to go to every bank. After IT implementation they do not need to go to banks rather they can collect the same information through network and audit report can be generated within few minutes.
5. In traditional system it is time dependent to transfer money from city to remote area and also a matter of some investment. During the transfer time the money is idle so it's a great loss for the bank as well as customers. Electronic system can be used to transfer money within a few seconds (Intra-bank).

6. The internet services are becoming very common to us. So a service offered through the internet will be widely accepted in the near future.

**Problems of E-banking in Bangladesh:**

People have concern about security and privacy. They like to feel their money with their hand. They actually don't believe in virtual money transfer. In the field of IT new technology is coming every day. The one which is very popular today might get obsolete tomorrow. So to have a competitive edge over the competitors the banks must always update their services. The movement towards online banking might marginalized the customers who do not have internet access or who are not technologically sound.

1. Security breakdown: The system will have a problem with the identification of the individual who is initiating the transaction. In Bangladesh, the identification of an individual is not yet supported digitally. So there will be a problem in moving to the Internet era for banking purposes just now. First we will have to develop a digital database of the users of the internet banking services.
2. The transaction can be cancelled only via internet. The internet infrastructure of our country is not that much supportive to provide all time access to the web. So there will be a problem in executing the service with its full functionality.
3. Huge Number of branches all over the Bangladesh even outside the country and for the purpose of automation huge investment is necessary.
4. Most of the branches are in the rural areas where there are no modern digital communication facilities.
5. Most of the users or clients of the banks are poor and uneducated village people having no knowledge about electronic banking and cannot afford it at the current cost level.
6. Most of the officials of these banks in the classical stage especially the state owned ones are aggie and cannot understand and are reluctant to accept modern electronic banking. To turn around these banks at first the outdated mentality of these officials of the classical banks.
7. In spite of these shortcomings all these banks in the classical stage are trying to convert themselves into the modern electronic banks and make them able to compete with other commercial banks

**4. Data Analysis and Findings**

**Internet users are increasing**

Today the people are getting more technology conscious. They are well aware of the benefits of the technology. This made many people a user of the internet facilities. The number of users increased fast over the years.

**Table 1:** The number of internet users in Bangladesh

Operator	Mar 2015	Jan 2016	Feb 2016	Mar 2016
Mobile Phones	43.167	53.431	55.512	58.045
WiMax	0.208	0.143	0.136	0.131
ISP & PSTN	1.250	2.594	2.669	3.112
Total	44.625	56.167	58.317	61.288

*Source:* BTRC (in millions)

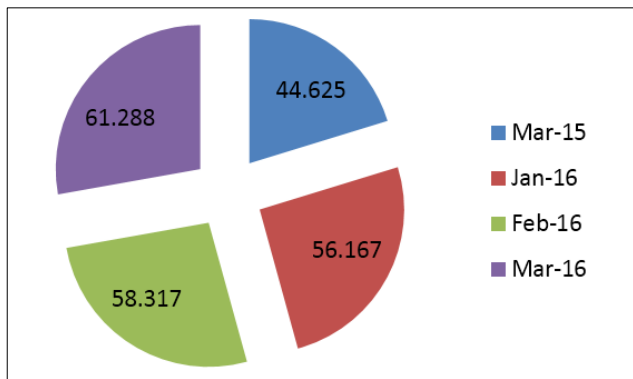


Fig 1: Trend of Internet Users in Bangladesh

From the figure we can see that there is a sharp rise in the number of internet users. The number of internet users in Bangladesh has jumped by more than 137% in a year from March 2015 to March 2016 to over sixteen million, partly due to lower tariffs. This will form a strong background in favor of internet banking in Bangladesh.

**The constraints on Internet Growth in Bangladesh**

Though we have seen some sharp rise in the growth of internet and internet users, there are some obstacles on the way to the growth of internet in Bangladesh. Some of the reasons are listed below:

Table 2: Barriers of Internet Growth

Comment	Sylhet (in percentage)	Dhaka (in percentage)	Chittagong (in percentage)
Underdeveloped IT industry	81.71	65.00	56.00
No direct access to the information super highway	91.43	96.00	76.00
Limited skilled human resources	90.57	87.00	82.00
Poor telecommunication infrastructure	82.57	79.00	82.00
Low-level of computer literacy	78.86	65.00	72.00
Widespread poverty	53.14	38.00	54.00
Low telephone penetration	75.71	63.00	56.00
Lack of software in the Bengali language	84.29	87.00	72.00

Source: Compiled on the basis of customers' responses.

**New ISPs are emerging**

After the withdrawal of imposition on VSAT in April 2000 the Internet scenario of the country has been changed drastically. An entrepreneur has only need to obtain a simple permission from the government run BTTB with an annual mandatory fee of USD3500 and can choose any globally available transponder services. Breaking of this monopoly has increased competition in the market with rapid reduction of equipment cost and cost of satellite services, reflecting abrupt reduction of Internet usage fee. Legal framework now also permits ISPs to float public share in the stock exchange (Rahman, H., 2000).

Current bandwidth of Internet backbone ranges between 64Kbps and 2Mbps through dedicated full-duplex VSAT links. There are a few companies, who are trying to make popularize their Broadband connectivity sharing an allocated bandwidth.

Table 3: Number of ISPs over time in Bangladesh

Year	2000	2005	2010	2015
Number of ISPs	45	180	190	205

Source: BTRC (2016)

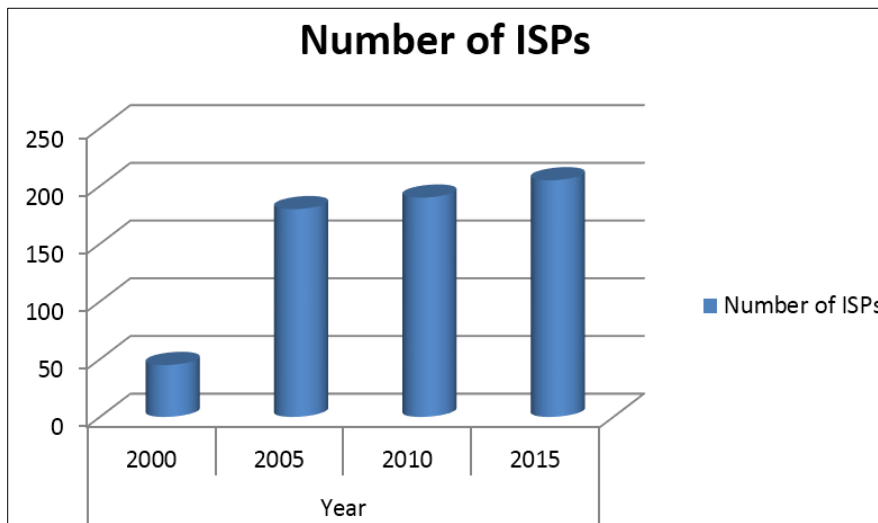


Fig 2: Trend of the increment of the number of ISPs

Concentration of ISP is the most in Dhaka city, where more than 70% of them are located. Recently they are focusing on Sylhet, Chittagong, Rajshahi, Khulna and Bogra as there are huge customers groups are emerging. Some ISPs are offering

their Internet services through 2Mbps full-duplex VSAT link, while highest peak time Internet usage rate ranges from Taka 1.50 to lowest Taka 0.20 (2.00 to 6.00 am for one ISP).

**Customers’ response about On-line banking services**

Based on the responses of the customers who are adapted in on-line banking system, following results have been gathered. Table 4 Opinions of customers who are adapted in on-line

banking system (respondents who expressed “yes” comment) Comment Sylhet (in percentage), Dhaka (in percentage) and Chittagong (in percentage)

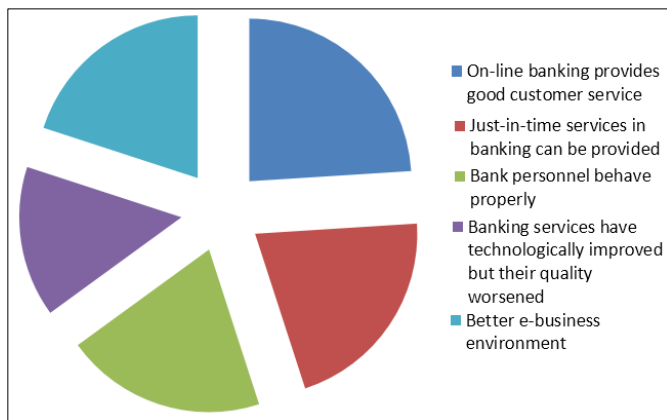
**Table 4:** Opinions of customers who are familiarized in on-line banking system (respondents who expressed “yes” comment)

Comment	Sylhet (in percentage)	Dhaka (in percentage)	Chittagong (in percentage)
On-line banking services are relatively better than manual system	62.00	79.00	66.00
On-line banking provides good customer service	58.00	72.00	62.00
Just-in-time services in banking can be provided	52.00	56.00	48.00
Bank personnel behave properly	48.00	52.00	58.00
Dealing officer is well conversant about his/her respective desk work	44.00	48.00	46.00
Banking services have technologically improved but their quality worsened	42.00	51.00	44.00

*Source:* Compiled on the basis of customers’ responses.

From the findings above it is observed that impact of on-line banking has a mixed result though most of the customers support that it provides good customer services. But the problem is that customers think that while banking services have technologically improved, their quality worsened. However, in the opinion poll survey there is a question regarding dealing officials of the commercial banks whether they are well acquainted about their desk work. The reply indicates that 56%, 52% and 54% customers of Sylhet, Dhaka and Chittagong cities think that dealing officers of the banks are not well acquainted about their desk work.

Now we are showing graphical representations. On-line banking provides good customer service Just-in-time services in banking can be provided Bank personnel behave properly Banking services have technologically improved but their quality worsened Better e-business environment



**Fig 3:** Comments of customers who are getting on-line banking services (Graph)

E-business is still not very much progressed in Bangladesh. Mass awareness is not feasible. The country faces problem of developing human-ware. Without human capital conforming to the international standards, we are not able to compete in the global market and successful e-business cannot be feasible. The field level study observes that still nationalized commercial banks and specialized banks are lagging behind on-line banking services. Moreover, customers are not satisfied with the quality of the services. Also, they are not very happy with the behavior of the bank personnel. The study also reveals that e-business, especially with the help of on-line banking, can

manage economy of Bangladesh in a better way as customer relationship management increases.

Several problems have been identified in on-line banking system in Bangladesh based on the employees of the bank’s who have given their view about the questions asked to them. Some of them are the following:

1. Inefficiency and inadequate knowledge and human resources of the bank management about the on-line banking.
2. Lack of proper strategic plan to gain and retain market share of the local banks.
3. Lack of international standard communication channel and cooperation.
4. High installation cost of establishing on-line banking system.
5. Inadequate back and front office management system.
6. Lack of integrated plan among the banks and the Central Bank authority.
7. Inefficient Clearing House facilities provided the Central Bank.
8. Inappropriate software and less trust by the bank authorities on local software.
9. Bias of the bank management towards foreign software.
10. Legal barriers and appropriate policy framework.

A few numbers of customers taking banking services are not capable of bearing the cost of additional equipments like computer, computer accessories, Internet, and smart phone etc. in their own organizations or at home. Using Internet facility is still very costly and people have little knowledge in operating computers. A few cyber are available but in terms of banking purpose customers do not feel safe to use these facilities. As a result, the total number of customers who are habituated in on-line banking systems is limited. In these circumstances investment in establishing e-banking facilities seems profitless. Though on-line banking has bright prospects, it involves some financial risks as well. The major risk of on-line banking includes operational risks (e.g., security risks, system design, implementation and maintenance risks), customer misuse of products and services risks, legal risks (e.g., without proper legal support, money laundering may be influenced), strategic risks, reputation risks (e.g., in case the bank fails to provide secure and trouble free e-banking services, this will cause reputation risk), credit risks, market risks, and liquidity risks. Therefore, identification of relevant risks, and formulation and implementation of proper risk management policies and

strategy formulations and implementations are important for the scheduled banks while performing on-line banking system.

## 5. Recommendations

To implement effective on-line banking system in Bangladesh, following recommendations are given below:

1. To increase e-business process in a systematic way that will help to effective implementation of on-line banking activities, it is required to develop human ware, hardware, software and web ware with a consistent manner.
2. Greater emphasis should be given on security system and on preventing fraud so that any kind of financial transactions like on-line payment or any other electronic fund transfer can be properly handled.
3. Career pathway of hardware and software engineers should be properly designed. If not, professionals will not work with job satisfaction.
4. The Clearing House operation should be fully automated and banks should have adequate research, skilled manpower and technology driven strategies in this aspect.
5. Initiatives to develop integrated e-banking software through in house built may be taken. Preference should be given by the bank authority to use local software over foreign software.
6. Common gateway is required so that interbank transactions can be feasible. Banks should have their own strategic plans to implement on-line banking system. Creating awareness and consciousness among the clients of the banks is also required.
7. Upzilla level may be considered as the base unit which may be connected with district and then connectivity with the capital of the country can be done. However, more stress should be given on wire free connectivity for which priority should be given on WiMAX technology.
8. Public and private participation (PPP) for on-line banking should be encouraged for economic development.
9. Quality education and training in the field of ICT to develop human resources are essential. Moreover, entrepreneurship should be improved for developing hardware and computer peripherals.
10. More high-speed fiber optical data communication infrastructures should be well established for speedy data communication for domestic and global high speed communication system.
11. Internet accessibility should be used for poverty reduction.
12. For development of the system and infrastructural the following things have to be done:
  - (a) E-procedure, (b) Browser based system development, (c) Web enable of legacy and/or client server systems, (d) Enterprise application integration, (e) Implementation or use of application server technology.
13. Local banking software should be developed properly and must have greater accessibility within and outside the country. Moreover, to produce hardware, especially computer and its accessories, local entrepreneurs are not taking any sort of strategic planning
14. The shortage of technology-based human resources and poor telecommunication infrastructure needs to be overcome to break low equilibrium trap. Bridging the digital divide would provide technology based human

resources, who can contribute to raising gross domestic product (GDP), national savings, investment, creation of employment and moving out from the vicious circle of underdevelopment.

15. The security system of electronic banking can be improved in the following ways: (a)Analyzing the potential risks in the electronic payments systems, (b) Tradeoff between the efficiency of the financial system and the amount of risk incurred, (c)Competitive pressures that may encourage the banks to engage in competitive deregulation, (d)Effective provision and arrangement for cryptography and its applications; (e)Willingness of more customers to accept e-business as psychological patterns of the customers has been changing.

## 6. Conclusion

In order to maintaining a standard online banking useful of the customers, the task that online banking play is priceless. On-line banking is one of the important network applications where benefits to customers and banks are already extensively established. Now it is impossible to survive without on-line banking. Present electronic banking concept in the banking services is new especially for Bangladeshi people. The majority of banks have not any activities to execute the business of electronic banking for their own organizations. People are not also aware about the benefits of the technology. Some foreign banks have already introduced their activities to attract their targeted customers for specialized products and services. The foreign banks are going to people with variety of highly technical products, which can solve the people's problem and can able to update their lifestyle. The expansion of electronic banking users increasing is a significant manner. Now days, the quality of service has been the vital issue in companies' prosperous position. Thus, it is hoped that in near future, banks will be able to ensure the online banking use of its customers in a better way.

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