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APPLICATION OF ELECTRONIC BANKING IN BANGLADESH: AN OVERVIEW

Syeedul Al-Amin* and Sk. Saifur Rahman

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Abstract

"E-banking" refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer (PC) or other intelligent device. Its products and services can include wholesale products for corporate customers as well as retail and fiduciary products for consumers. The main focus of this study is to examine the performance, problems and prospects of E-banking in Bangladesh. The study is descriptive in nature. It reveals that E-banking mostly depends on IT. At present, IT is a subject of widespread interest in Bangladesh. The government has declared IT as a thrust sector. The study recommends that a comprehensive E-banking will be possible only when there will be political commitment with better IT infrastructure, internal network, country domain and, above all, a high speed fiber optic link to the information superhighway.

Key words: E-banking, IT, Internet, ATM, ACH, EF, TBP

Introduction

Internet technology has brought a revolution in our conventional banking system. Now it is an era of electronic banking. Electronic banking is the banking activities performed through the electronic means, i.e., using telecommunications network, web technology, computers, cellular phones and other electronic devices. In 1961, First National City Bank of New York introduced successful electronic system-based transferable deposition certificate. With the advancement of technology, the first phase of E-banking was Electronic Fund Transfer (EFT). The main elements of this EFT are- Automated Teller Machine (ATM), Point of Sale (POS), and Automated Clearing House (ACHs). In 1967, Barclays Bank of UK established the first Cash Dispenser. After one year, in 1968, France, Sweden and Switzerland introduced first "National cash dispenser network". In the year of 1969, America and Japan began to run their self-made dispenser machine. This machine worked off-line which was not linked with the computers of the bank. In 1972, Lloyd's Bank of UK established first online "cash point" which was linked with the central computer of the bank. Today's machines are the contribution of the research and development of the last 30 years which contain a Full Graphics Screen Monitor like a computer monitor. Customers can apply for loan, verify their account information, financial transactions etc. round-the-clock, even on weekends, through the electronic banking. Bangladesh is in the elementary stage of E-banking where the developed countries are in the stage of 'Virtual banks' (No man Banks) that have no physical offices in the traditional sense. Internet can be seen as a truly global phenomenon that has made time

***Corresponding Author,** Email:syeedul101@yahoo.com
Lecturer, Faculty of Business, Bangladesh University of Business & Technology (BUBT)

and distance irrelevant to many transactions. This paper presents the performance, problems and prospects of introducing E-banking in Bangladesh.

Attempt has been made to fulfill the following specific objectives

1. To Conceptualize the evolution of electronic banking practice in Bangladesh
2. To assess the existing scenario and to detect the problems and prospects related to the implementation of E-banking in private commercial banks and foreign commercial banks in Bangladesh.
3. To identify the operational process and the performance of E-banking in Bangladesh in comparison to other developed nations.
4. Finally, to identifying the macro level benefits of electronic banking operations in Bangladesh.

Methodology and Limitations

Methodology

The study is descriptive in nature. Data used in this study are collected basically from the secondary sources. Primary data are also collected through personal interview method conducting the persons who are supposed to have knowledge about the problem Secondary data were derived from various sources including the annual reports of Citigroup, Citigroup website, the Financial Statements of Citibank N.A. Bangladesh etc. For the comparison of products, websites of different banks offering Internet Banking and some bankers working on those particular banks were consulted. For some specific information officials of Bangladesh Computer Council and Bangladesh Institute of Bank Management provided necessary inputs. For the industry related, legal, infrastructure related information internet was a good source.

Limitations

Bangladesh is lacking behind to use internet banking in banking transaction comparing most of the SAARC Countries. So collecting data is very much difficult in Bangladesh where banks are still thinking EPC operation is a competitive advantage in banking business. Banks are not interested to disclose their business secrets. In addition to this, journals, periodicals and published data are not available on this issue. We put all efforts to collect necessary data though we had time and budgetary constraints. Moreover, Interviewing target respondents adopted convenience sampling as alternative to random sampling, at some phases where respondents were inaccessible or not available. Bank officials were found too busy and also reluctant to talk without a proper written permission from the competent authority. Moreover while colleting data they did not disclose much information/data due to the secrecy of the organization.

Growth in E-Banking Banking

Numerous factors including competitive cost, customer service, and demographic considerations are motivating banks to evaluate their technology and assess their electronic commerce and Internet banking strategies. Many researchers expect rapid growth in customers using online banking products and services. Evaluating a bank's data on the use of their Web sites, may help examiners determine the bank's strategic objectives, how well the bank is meeting its Internet banking product plan, and whether the business is expected to be profitable Studies show that competitive pressure is the chief driving force behind increasing use of Internet banking technology, ranking ahead of cost

reduction and revenue enhancement, in second and third place respectively. Banks see Internet banking as a way to keep existing customers and attract new ones to the bank. National banks can deliver banking services on the Internet at transaction costs far lower than traditional brick-and-mortar branches. The actual costs to execute a transaction will vary depending on the delivery channel used. National banks have significant reasons to develop the technologies that will help them deliver banking products and services by the most cost-effective channels.

E- Banking products and services

E-Banking products and services can include wholesale products for corporate customers as well as retail and fiduciary products for individual customers. Ultimately, the products and services obtained through internet banking may mirror products and services offered through other bank delivery channels. A brief description of retail and wholesale products and services is given below:

Automated Teller Machine (ATM)

An automated teller machine (ATM) is a computerized telecommunications device that provides a financial institution's customers with a method of financial transactions in a public space without the need for a human clerk or bank teller.

Debit Card

A debit card is a plastic card which provides an alternative payment method to cash while making purchases. The amount of a transaction is typically displayed on a card reader, after which the customer swipes the card then enters their PIN number (an attendant must swipe gift cards at gas stations). There is usually a short delay while the EFTPOS (Electronic Funds Transfer at Point of Sale) terminal contacts the computer network (over a phone line or mobile connection) to verify' and authorize the transaction.

Credit Card

A credit card is a system of payment named after the small plastic card issued to users of the system. A credit card is different from a debit card in that it does not remove money from the user's account after every transaction. In the case of credit cards, the issuer lends money to the consumer (or the user). It is also different from a charge card (though this name is sometimes used by the public to describe credit cards), which requires the balance to be paid in full each month. In contrast, a credit card allows the consumer to 'revolve' their balance, at the cost of having interest charged.

Point of sale (POS)

POS is an abbreviation for point of sale (or point-of-sale, or point of service). This can mean a retail shop, a checkout counter in a shop, or a variable location where a transaction occurs in this type of environment. Additionally, point of sale sometimes refers to the electronic cash register system being used in an establishment. Point of sale systems are used in restaurants, hotels, stadiums, casinos, as well as retail environments in short, if something can be sold, it can be sold where a point of sale system is in use.

Check Truncation

Check truncation is such a service in which a financial institution does not return the rejected checks with the monthly statement to their customers, rather they provide statement of rejected checks with the monthly statement. The banks store the rejected checks for a certain period (usually 90 days). During this time

period, a customer can adjust/rectify his account if any imbalance is found between his own records and the bank statement provided by bank. After the expiration of this stipulated period, the rejected checks are spoiled and the bank maintains a micro film copy for a period.

Home Banking

At first, banks introduced Telephone Bill Payment (TBP) system so that customers could be able to do their banking activities from their home. The next version of home banking was Video Home Banking (VHB). The internet is expected to be a major factor in home banking.

Retail Automated Clearing House Service

The Automated Clearing House (ACH) is an electronic network for financial transactions. ACH processes large volumes of both credit and debit transactions which are originated in batches. ACH credit transfers include direct-deposit payroll payments and payments to contractors and vendors. ACH debit transfers include consumer payments on insurance premiums, mortgage loans, and other kinds of bills. Businesses are also increasingly using ACH to collect from customers' online, rather than accepting credit or debit cards.

Wire Transfer

Wire *transfer* is a process which ensures fast and appropriate timing of fund transfer from the sender to the recipient. This kind of transfer of money could be either within the country or abroad. Funds are transferred under the following network:

i. Fed wire (The Federal Reserve Communication System)

ii. Bank wire

iii. CHIPS (The Clearing House Inter-bank Payment Service)

iv. SWIFT (The Society for World Wide Inter-bank Financial Telecommunication)

Corporate Automated Clearing House

The Automated Clearing House (ACH) is an electronic network for financial transactions. ACH processes large volumes of both credit and debit transactions which are originated in batches. Other retail and fiduciary products and services may include Balance inquiry, Funds transfer, Downloading transaction information, Bill presentment and payment, Loan application, Investment activity and other value-added services.

Security measures of E-banking

The Security of a system is the extent of protection against some unwanted occurrence such as the invasion of privacy, theft and the corruption of information or physical damage. As this system is developed through the Internet there is a big chance for hacking through our system. Current browsers counter security threats with a network communication protocol called Secure Sockets Layer (SSL). SSL is a set of rules that tells computers the steps to take to improve the security level of communications. These rules are designed for the following:

Encryption

Guards against eavesdropping. Encryption is the scrambling of information for transmission back and forth between two points. When we send out a letter to our friend, we communicate in a language that both of us understand. Since, our language is understood by thousands of other people also, if someone else gets hold of our letter, he will not have any problem in understanding its contents.

Decryption

Encryption refers to the encoding of information that a user sends over the Internet. If an unauthorized party tries to read that, it would be impossible for them to read it. Decryption is reverse technique of Encryption. After receiving encrypted data it is converted to original data.

Secure Socket Layer

Secure Socket Layer (SSL) provides sound privacy protection by encrypting the channel of communication between server and the customer. Using a mathematical formula, SSL puts the information into a complex code. Even if information is intercepted, that would be extremely difficult to read. So SSL's only role is to encrypt or decrypt message. This protocol fully encrypts all the information in both the HTTP request and HTTP response, including the URL the client is requesting any submitted from contents (e.g. credit card number, debit card number), any HTTP access authorization information (user names, password) and all the data returned from the server to the customer.

Authentication

Guards against impersonation. However, these effects protect our data only during transmission, That is, network security protocols do not protect our data before we send it. Just as we trust merchants not to share our credit card information, we must trust the recipients of our on-line data not to mishandle it.

E-banking and Bangladesh

Foreign banks through successful use of a global network have increased the timeliness and accuracy of information, benefiting its customers, employees and also management.

A broad spectrum of E-banking services, a subset of electronic finance, is available in Bangladesh with different degree of penetration.

CitiDirect®

To gain more control over ones cash positions, one needs easy access to accounts and information in real time. One will need the convenience of local banking and the global solutions of an industry leader. The solution is CitiDirect® Online Banking. The motto of CitiDirect® is "Money isn't everything but it can be everywhere". The available facilities are:

- Online Direct Debit Transaction Process
- Information Reporting
- Real-time information reporting for more effective cash management
- Delivered with the highest level of security
- Easy-to-use application
- World Link through CitiDirect
- Comprehensive payment transaction solution
- Flexible, streamlined functionality
- Reliability, speed and information
- Payments through CitiDirect
- A comprehensive payments solution globally and locally
- Simplified, secure transaction management
- Timely, accurate information
- E-mail and Wireless Banking Alerts by CitiDirect

Eastern Bank Limited

Eastern Bank Limited Internet banking application addresses the needs of small, individual and corporate account holders of the bank. This application

provides a comprehensive range of banking services that enable the customer to meet most of their banking requirements over the net. The transactions that are supported by the internet banking provided by Eastern Bank Limited are Account operations and Inquiries, Fund Transfers and Payments, Utility Bill Payments, Deposits, Loans, Session Summary etc.

Bank Asia

Bank Asia symbolizes modern banking with innovative services in Bangladesh. It has centralized Database with online ATM, SMS and Internet query service. Bank Asia has 21 ATMs as a member of ETN along with eleven other banks. Bank Asia is maintaining its competitiveness by leveraging on its Online Banking Software and modern IT infrastructure. It is the pioneer amongst the local banks in introducing innovative products like SMS banking, and under the ATM Network the Stellar Online Banking software enables direct linking of a client's account, without the requirement for a separate account.

BRAC Bank

BRAC Bank deployed a layer of security system for its Internet Banking. These measures extend from data encryption to firewalls. BRAC Bank uses the most advanced commercially available Secure Socket Layer (SSL) encryption technology to ensure that the information exchange between the customer's Computer and BRACBank.com over the internet is secure and cannot be accessed by any third party. SSL has been universally accepted on the World Wide Web for authenticated and encrypted communication between customers' computers and servers.

Arab Bangladesh Bank Ltd.

AB bank Ltd. is the first private bank of Bangladesh with a long standing experience in domestic and international banking. Its 153 branches in all the major commercial centers of the country and 152 correspondents worldwide provide proficient banking services to its customers.

HSBC

Business Banking Account enables a person to receive credit of all the cash or cheque deposits along with inward remittance and make all local payments and provide access to the wide range of services for the business requirements. With Easy Pay Machines both HSBC and Non-HSBC customers can make deposits and pay their utility bills, credit card payments and etc.

SCB

Standard Chartered offers the client a comprehensive range of Cash Management services. Electronic Banking provides various types of support through a wide range of operating systems, sweeping transaction accessories with the provision of reporting features or other special functions.

Status of Bangladesh in Adopting Banking Technology

It is imperative for the Bangladeshi commercial banks to embrace the latest technological changes in offering banking services. More and more banks are now using different software to do their banking operations (Table 1), which has established the arguments in favor of using technology. Many Bangladeshi commercial banks initially started with some locally produced banking software and at present many of them are now upgrading the previously obtained software. However, some of them started with the advanced foreign software. These software enable the banks to perform their banking operations more smoothly than that of past with more customer orientation and flexibility. It is evident from Table 1 that the banking sector of Bangladesh has recognized the necessity of introducing new technology in this arena.

The widely used banking software in Bangladeshi commercial banks at present are PC Bank (12 banks), BEXIBank (7 banks), Flora Bank (7 banks), Infinity Banking Solutions (4 banks), Micro Banker (2 banks), and Flexcube (2 banks). Moreover, some commercial banks are using Kurnel, KPATI, A2Z, IBBS, Finacle Core, EAGLE, Stellar, Millennium Banking System (MBS), and EBBS etc. About 16 commercial banks are using ATMs including foreign commercial banks. The banks are planning to install more ATMs in different locations, which are commercially important. Some banks are using shared ATM facilities to minimize the installation cost of ATMs.

Table 1. Status of Software and ATM in Banks

Name of the Banks	Banking Software		ATM
	Present	Previous	
Sonali Bank	Bexibank 4000+, PC Bank, Kurnel Banking System, Flora Bank	Bexibank 3000+	No
Janata Bank	BEXI Bank, Flora Bank	BEXI Bank	No
Agrani Bank	BEXI Bank 3000+	N/A	No
Rupali Bank Ltd.	Infinity Banking Solution (IBS)	IBS	No
Pubali Bank Ltd.	PIBS	A2Z	No
Uttara Bank Ltd.	UIBS	A2Z	No
Bangladesh Krishi Bank	IBS and Flora Bank	N/A	No
Arab Bangladesh Bank	KPATI	BEXI Bank	Yes
National Bank Ltd.	BEXI Bank 4000+, BEXI Bank 3000+, A2Z, and Flora Bank	BEXI Bank	Yes
The City Bank Ltd.	Finacle Core	PC Bank	Yes
Islami Bank Bangladesh Ltd.	IBBS	BEXI Bank	Yes
IFIC Bank Ltd.	BEXI Bank 4000+	BEXI Bank 3000+	Yes
United Commercial Bank Ltd.	PC Bank	BEXI Bank 3000+	No
The Oriental Bank Ltd.	PC Bank 2000	N/A	Yes
BASIC Bank Ltd.	EAGLE	N/A	Yes
Eastern Bank Ltd.	Flexcube		Yes
National Credit and Commerce Bank Ltd.	Micro Banker (I Flex)	Bank Star 2000	No
Prime Bank Ltd.	PC Bank	N/A	No
Southeast Bank Ltd.	PC Bank		Yes
Dhaka Bank Ltd.	Flexcube	PC Bank	Yes
Al-Arafah Islami Bank Ltd.	BEXI Bank	N/A	No
Social Investment Bank Ltd.	PC Bank	BEXI Bank	Yes
Dutch-Bangla Bank Ltd.	PC Bank	PC Bank	No
Mercantile Bank Ltd.	PC Bank	N/A	No
Standard Bank Ltd.	BEXI Bank 4000+	N/A	No
One Bank Ltd.	Micro Banker (I Flex)	PC Bank	No
Export Import Bank of Bangladesh Ltd.	PC Bank	N/A	No
Bangladesh Commerce Bank Ltd.	Flora Bank	N/A	No
Mutual Trust Bank Ltd.	Flora Bank	BEXI Bank	No
First Security Bank Ltd.	PC Bank/M, PC Bank 2000	PC Bank	No
The Premier Bank Ltd.	PC Bank 2000	PC Bank	Yes
Bank Asia Ltd.	Steller	Bexibank 4000+	Yes
The Trust Bank Ltd.	Kernel Banking System		No
Shahjalal Bank	PC Bank 2000	N/A	No
Jamuna Bank Ltd.	Flora Bank	N/A	Yes
BRAC Bank Ltd.	Millennium Banking System (MBS)	N/A	No
American Express Bank Ltd.	-	-	Yes
Standard Chartered Bank	EBBS	BBS	Yes
Habib Bank Ltd.	MOBS	N/A	No

Source: Questionnaire

Bangladeshi commercial banks are implementing the online banking gradually, though it can not be said it is real time online banking. In this case the private commercial banks are playing the pioneering role. Through the existing system of online banking the branches are linked together with one another which facilitate smooth coordination among the branches and also with the head office. In Bangladesh, except very few banks, online banking is limited to the extent - any branch banking, which enables a customer to operate his/her account in any of the branch if he/she has a account in respective bank. It enhances the mobility of account transaction. Few Bangladeshi banks are now introducing real time online banking and Internet banking. It is basically in true sense the online banking, which is practiced in much developed banking system. The Bangladeshi commercial banks, which are introducing the real time online banking, have made a breakthrough in traditional online banking. They interpret this paradigm shift in terms of benefits such as centralized system, EOD at data center, centralized MIS, improved control reports, anywhere 24 hours x 7 days banking, internet banking, tele-banking, and ATM/POS, one stop shop for all banking needs, sophisticated customer information, online inter-branch transfer, any branch pay order system, digital signature/photo image while transacting, display customer balance-transaction-statement online, automatic Sweep in and out, bill payment (utility service bill, tuition fees, mobile phone bills), etc. Therefore, from the introduction of real time online banking the customers of those banks will be able to enjoy the high quality customer oriented banking service. Besides the PCBs, Foreign Commercial Banks (FCBs) operating in Bangladesh are offering world class banking services using the improved banking technologies since their operation started in this country.

Constraints of Internet Growth

- Lack of adequate and knowledgeable technical skill
- Lack of adequate govt. support
- Lack of software copyright protection act
- High preliminary cost
- Lack of adequate physical facilities
- Less investment and looking for short term return in the last mile solution
- Lack of long term planning
- Poor telecommunication infrastructure
- Low level of computer literacy
- Widespread poverty
- Limited point of presence of ISPs
- Lack of software and content in Bengali

Government Initiatives

The Government of Bangladesh has taken some important initiatives to develop our IT sector. Still we are waiting to see a fruitful change in our Information Technology. However, some remarkable steps of government are highlighted for information.

- IT has been declared as a thrust sector.
- Quick implementation of the recommendations of JRC reports (a high powered committee for software export).
- Waiving all taxes and duties from import of computer hardware and software.
- Hundred percent remittances of profit and capital gains for foreign investors without any approval.
- BTTB's implementation of Digital Data Network (DDN) service.

- Decision to link Bangladesh to global highway through submarine cable link by next two years.
- National Information and Communication Technology (ICT) Policy has been approved in 2002.
- An independent regulatory body, Bangladesh Telecommunication Regulatory Commission (BTRC) has been established, functioning since 2002.
- Recently started the establishment of ICT Park to boost up the country's ICT activities.
- The govt. is liberalizing telecom sector in phases, with increased participation of private sector.
- Copyright Act 2000 named Intellectual Property Rights (IPR) Law related to ICT is in the process of finalization and is in the process of enactment by the Parliament.

Empirical Analysis

SWOT Analysis

To find out the viability of a particular product we must perform a SWOT Analysis of the product. This will analyze the Strengths, Weaknesses, Opportunities, and Threats of the particular product. For analyzing the performance of Internet Banking in Bangladesh we the following SWOT Analysis is considered

Strengths

- 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.
- 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.
- Internet banking is convenient as the service is available all the time at just a click away.

Weaknesses

- 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.
- 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.

Opportunities

- 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.

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

Threats

- 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 everyday. 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.

Despite the presence of online Internet service in Bangladesh, its scope is largely underutilized. The reasons include high service charges, lack of awareness, poor telecommunication systems, government policy, low buying power of potential clients, and lack of institutional support.

Cost Benefit Analysis (CBA)

The main benefit of internet banking is the amount of time (thus money) it saves. Although Internet banking is restricted to managing accounts and making on-line transactions, it cuts out much of the need to personally visit the bank. Using Internet banking will also increase the efficiency of paying money (bills, debts, wages, etc) as it can reduce the need for writing and sending cheques (which can take up to 5 days to clear). Wages and Salary payments can be created via internet banking to pay such money, which is also an efficient way of paying staff wages. On-line banks are able to offer their customers higher interest rates than high street banks due to their reduced overheads. If the popularity of Internet banking takes off as predicted the banks may also be capable of offering their Internet banking customers higher interest rates (due to reduced overheads or as and incentive). Though Internet banking will require a higher initial investment, the operating expenses will be much lower. Again customers will be satisfied through fast, accurate, easy-to-use, comprehensive delivery of the services. So internet banking will be much more beneficial to banks as well as customers.

Findings

A broad spectrum of electronic baking services, a subset of e-finance, is available in Bangladesh with various degree of penetration. Credit card and POS services are provided by 23 percent of banks [PCBs and FCBs]. Several thousands of POS terminals have been set in major cities of the country. Tele-banking is second most penetrated e-baking service in Bangladesh. ATM is expanding rapidly in major cities. A group of domestic and foreign banks operate shared ATM network, which drastically increase access to this type of electronic banking service. The network will gradually be extended to other parts of the country. Credit card is also becoming very popular service in major cities of Bangladesh; during 1999-2005 the growth of credit card market is more than 100 percent. The credit card service is available from VISA, MasterCard and VANIK. Some foreign banks provide electronic fund transfer services. Microchips embedded Smart Card is also becoming popular in the country, particularly for utility bill payment.

Table 2. Electronic Banking Services in Bangladesh (percentage of Banks)

Product	2000	2001	2002	2003	2004	2005
Tele Banking	20	24	25	28	30	32
Online Corporate Banking	8	12	14	15	18	25
Electronic Fund Transfer	15	18	20	22	25	30
ATM	15.4	28	28	30	35	40
Credit Card	23	-	20	25	28	24
Debit Card	3.8	18	22	28	33	40
Merchant Account Service	3.8	12	15	18	18	20
Internet Banking	7.7	12	15	22	35	45

"-" represents data unavailable

Last couple of years shows dramatic improvement in the awareness situation in the banking community regarding the comprehensive application of ICT. The experts forecast that ICT penetration in the banking sector will improve dramatically by 2005. Majority of banks is planning to introduce ICT for integration of banking services and new e-finance services, which will play a vital role in bringing efficiency in the financial sector. Among the banks surveyed 75 percent of banks have strategic plan to implement ICT and internet banking.

Bangladesh Bank is now moving to the era of technological advancement. Bangladesh Bank is planning to have Automated Clearing House (ACH) which will automate the processing of checks by MICR coding. This shows the intention of Bangladesh Bank to the betterment of the services. This will eventually lead to internet banking to a requirement for all banks in the near future. With all the strategies we have set for us we can enter into a new world of internet banking.

Conclusion and Recommendations

Most of the countries have adopted E-banking and the consumers seem to like the convenience of E-banking despite some continuing hesitancy. The widespread uses of ATMs has paved the way for greater acceptance of other forms of electronic money such as smart cards and POS. Direct deposit, and to a lesser extent, electronic bill payment, are and to a lesser extent gaining popularity. In addition, as more people purchase personal computer and use the internet, home banking should become more widely accepted. But a cashless or check less financial system is still not in the state of foreseeable future.

Though there are 28 banks in Bangladesh, mostly head quartered in Dhaka. Most of these banks do not offer online or electronic service such as Direct Deposit. There are some ATM machines, though not nearly as concentrated as in a developed economy.

The Ministry of Science, Information and Communication Technology has given out the policy for the development in the IT sector. The ministry has concentrated on the following sections:

- Human Resources Development through Education and Training
- ICT Infrastructure development
- Research and Development in ICT
- Development of ICT Industry
- Development of E-Commerce
- E-Government / E-Governance establishment
- Establishment of Legal Issues

The Government spending in ICT is going to increase by at least 2% of ADP in coming years. The new budget provision encouraged the investment in the

application of ICT in trade and finance. The ICT companies will get preferential terms which will be able to meet up 20% of its revenue expenditure. BCC has created a centralized fund for R&D which would encourage contributing 1% of all profits from ICT-enabled services to the HRD fund. This will greatly help the development if ICT in Bangladesh.

The software support for internet banking, i.e. FLEXCUBE is available in Bangladesh. Again Bangladesh Government is working on the copyright law and the preservation of intellectual property act. After the successful implementation of all these policies and strategies we are expecting that more than 50% of the banks will be offering internet banking facilities that is now 12% only.

E-banking is in its nascent state in Bangladesh. At present, Information Technology (IT) is a subject of widespread interest in Bangladesh. The government has declared IT as a thrust sector and set up a vision of Digital Bangladesh in 2021. But Bangladesh has a long way to go in a very short time to enjoy the fruits of information age. It will be only possible when there will be political commitment with better IT infrastructure, internal network, country domain and above all a high speed fiber optic link to the information superhighway.

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