



CHALLENGES AND OPPORTUNITY OF ONLINE BANKING SERVICES AND PRODUCTS: AN EMPIRICAL STUDY IN BANGLADESH

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ABSTRACT

Banking in Bangladesh is still in the early stages of growth and development. Competition and Changes in technology have changed the face of Banking. Electronic banking is the use of computer to retrieve and process banking data and to initiate transactions directly with a bank via a telecommunication network. Now a day's due to emerging global economy, e-commerce and e-business have increasingly become a necessary component of business strategy and a strong catalyst for economic development. The new information technology is becoming an important factor in the future development of financial services industry, and especially banking industry. E-banking has to be a delivery channel that replicates and replaces many of the physical functions a bank currently performs. Hence, the E-banking now becomes a virtual banking counter that the individual and corporate customer to carry out the regular activities. At present the banks in Bangladesh are using the limited electronics banking services. E-banking product and services include wholesale products for corporate customers as well as retail and fiduciary product for individual customers. The aim of this paper is to provide an overview of e-banking adoption in Bangladesh with a study on electronic banking in Bangladesh of Opportunities and Challenges.

Key Words: E-Banking, Information Technology, Emerging Global Economy, Opportunities, Challenges.

INTRODUCTION

E-banking is now a global phenomenon. The developed country as a part and parcel of their economy is now using e-banking. A strong banking industry is an important in every country and can have a significant affect in supporting economic development through efficient financial services (Salehi and Azary, 2008; Salehi et. Al., 2008) The Banking sector in Bangladesh has experienced a rapid transformation. Technology in Bangladesh banking evolved substantially

from the days of back office automation to today's online, centralized and integrated solutions. We cannot think of ATM, Internet, Mobile and Phone banking or call center services without the help of technology. In the information age, it is difficult to deny the presence of many technological inventions that science has brought into our lives. One of the advanced technologies that have been introduced is electronic-banking. Traditional banking is characterized by physical decentralization, with branches scattered around populated areas to give customers easy geographic access. The education level was important variable but paramount important variables were income of the customers, here the income higher the degree of adoption of E-banking. This may be postulated from the study conducted that there are great opportunities in adoption of E-banking in Bangladesh, provided the challenges are redressed properly. The banking sector occupies an important position in the global economy. The sector has been subject to many external and internal forces. Of the external forces, a technological change is likely to have the most far-reaching impact on the sector. Technology, in particular the internet, is a key driver of these changes. The emerging technology has made an exponential growth of the internet which has changed the pattern of organizations performing their business with customers. However, in true sense, e-banking includes activities like payment of bills and invoices, transfer of funds between accounts, applying for a loan, payment of loan installments, sending funds to third parties via emails or internet connections regardless of where the client is located. In case of traditional banking system a fund transfer, for instance, used to take several days whereas electronic banking is capable to perform the same operations within few seconds. Customers are getting better services now because of the development of ICT in E-banking and so bank can perform its function with high speed and accuracy. There have already been a number of studies related to e-banking covering a range or research dimensions. For example, Pyun et al. (2002) in the U.S., Japan and Europe, Gurau (2002) in Romania; Sathye (1999) in Australia; Polatoglu and Ekin (2001) in Turkey; Balachandher et al., (2000) in Malaysia; and Jasimuddin (2004) in Saudi Arabia focused also related studies of internet banking. Apart from the developed countries, the developing countries are experiencing strong growth in e-banking-such as India and the Republic of Korea are experiencing particularly strong growth in e-banking. In Southeast Asia, internet banking is also developing rapidly in Thailand, Malaysia, and Singapore and in Philippines (Mia et. al., 2007). We refer also Thulani et al (2009) in Zimbabwe; Guangying (2009) in China; Dhekra (2009) in Tunisia; Adesina and Ayo, Maiyaki and Mokhtar (2010) in Nigeria; Salehi and Alipour (2010) in Iran, explored the extent of adopting and usage of internet banking. In Nepal, ATMs are the most popular electronic delivery channel for banking services but only a few customers are using internet banking facilities. But there have been several major challenges faced to the e-banking growth and the e-business in general. One major obstacle addressed most is the security concern (Feinman, et al., 1999; Financial Service, 2001). Another issue challenged e-business is the quality of delivery service-including both delivery speed and delivery reliability (Furst, et al., 2000). E-banking services have been available in Bangladesh since 2001. As of 2007, 29 out of 48 banks have offered online financial services (Rahman, 2007). In Bangladesh, research has been done on electronic commerce issues (Azam, 2007), computer usage (Azam, 2005), internet usage (Awal, 2004), telephone (Khan, 2001) and electronic banking (Bakta et al., 2007). The reason for the lack of

complete adoption of e-banking in development countries like Bangladesh is an important research that will be addressed by this paper. This paper is aimed at to determine economic prospects of e-banking and to explain the present scenario of banking sectors in Bangladesh and at the same time it demonstrates the scope and benefits of E-banking compared with the existing system.

Theoretical Background

Information Communication Technology (ICT) and Accounting Information Systems (AIS) applications in the banking sector gives competitive advantages to the banks by means of cost reduction, quick transaction, electronic fund transfer (EFT), electronic payment systems, well organized data management, analysis, safety, recovery management etc. as well as it improves the competence of the users and trims down its travelling and waiting times and gives more independence on the priority of the theoretical framework for the rationalized generations. The outer bank system includes presenting bank and remitting bank connecting with SWIFT (Society for World Inter-Bank Financial Telecommunication) including internet availability. Banking plays very important role in the economic development of the nations of the world because a development banking system holds the key as well as serves as a barometer of economic health of a county. Thus there was almost no study conducted to understand what users and non-users perceive about Internet banking services and what are the factors that have influenced users' intention.

Justification of the Study

E-banking is becoming an indispensable part in a global competitive free market. Only satisfying present need of customer cannot ensure the sustainable and expansion of banking business. Because a number of competitors may also work for satisfying the same customer need with superior customer value. Customers are increasingly demanding more value, with goods customized to their exact needs, at less cost, and as quickly as possible. Those who are giving much more services rather than others are giving; he will be well ahead of competition because of getting better competitive advantages. There are different banks working together in Bangladesh. The competition is going up day by day giving better services and they are trying to develop their own services every now and then. To meet these demands, business need to develop innovative ways of creating value which often require different enterprise architectures, different IT infrastructures and different way of thinking about doing business. This transformation of business from an old company to a new agile electronic corporation is not easy and requires a lot of innovation thinking, planning and investment. Many banks and other organizations have already implemented or are planning to implement e-banking because of the numerous potential benefits associated with it. So, electronic banking has got tremendous importance in banking sector and banking customers as well. This is why, it finds some interest to explore many of these issues regarding e-banking in some extent.

E-Banking in Bangladesh

The financial services industry has been subject to dramatic changes over the past decades, as a result of advances in IT, deregulation, and globalization. These changes have reduced margins in traditional banking activities, leading banks to merge with other banks as well as with non-bank financial institutions. The forces of consolidation are also having a profound impact on the operation of securities exchanges, as well as the brokerage and asset management industries (International Monetary Fund, 2001). The domestic banking groups are now in a position to reap greater benefits from economics of scale, through greater investment in technology and the more substantive pool of skilled staff. Under the Bangladesh Bank guidelines, all licensed banking institutions in Malaysia are allowed to establish informational Websites. For more advanced Internet banking services, only domestic banking institutions are allowed to establish communicative or transactional Web sites with effect from June 01, 2000. Locally incorporated foreign banks, however, are only allowed to incorporate communicative Web sites from January 01, 2001 and transactional Web sites from January 01, 2002 (Low 2000). A broad spectrum of internet banking services, a subset of electronic finance, is available in Bangladesh with different degree of penetration. Credit card POS services are provided by 23.1 percent of banks. Credit card is also becoming very popular service in major cities of Bangladesh; during 1999-2000 the growth of credit card market is more than 100 percent (Raihan, 2001). The credit card is available from VISA, Master Card and VANIK. Some foreign banks provide electronic fund transfer (EFT) services. It is at an early stage and used on a very limited scale. Microchips embedded Smart Card is also becoming popular in the country, particularly for utility bill payment. Automated teller machine (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 county. Online corporate banking (7.7 percent), EFT (15.4 percent), ATM (31.4 percent), debit card (3.4 percent), internet banking (7.7percent), and any branch banking (23.1 percent) and the major internet banking services provided by the banking sectors in Bangladesh (CPD, 2001). Larger banks that maintain expensive branch networks tend to have the greatest incentive to adopt e-banking services. In comparison, smaller banks have higher startup costs and tend to have a high initial technological cost in developing e-banking services (Treadwell 2001). The application of e-banking has been proven as an effective way to reduce the costs of operation for the financial institutions. For instance, e-banking services will allow banks to reduce expenditures on physical structures. It is believed that the e-banking will help banks to cut costs, increase revenue, and become more convenient for customers (Halperin, 2001). Another important benefit from e-banking is a more effective information collection and management. A combination of a low percentage of customers using e-banking services on a consistent basis and a relatively low start-up cost in developing e-banking services in the banking industry-will make the impact of e-banking (positive or negative) quite limited on financial institutions (Marenzi, et al 2001). Finally, the development of e-banking service has encouraged the adoption of a decentralized approach to give banks more needed flexibility to distribute internet to a much larger number of employees and potential customers. According to the report published in The Financial Express on November 03, 2009 Bangladesh Bank gave the ground breaking directives to commercial banks through a circular issued on November 02, 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.

REVIEW OF LITERATURE

The Bangladesh Railway owns a high-speed optical fiber network (1,800 km) parallel to the railway path that covers most of the important parts of Bangladesh. This optical fiber network can be used as the backbone network of e-banking in Bangladesh. For example, mobile phone operators such as Grameen Phone and Ranks ITT of Bangladesh use this optical fiber network through which they reach even in rural areas with their services (Islam 2005). It is encouraging that some of the FCBs and PCBs are already using this optical fiber network for conducting online transactions, ATM and POS services. Digital telephone exchanges have been established in 389 upazilas and 17 growth centers. Work is underway to cover the rest of the upazilas under digital exchange system. Meanwhile, Bangladesh has joined the information super-highway by connecting itself with international submarine cable system in 2006. A total of 159 Internet Service Providers (ISPs) have now been connected with this system of which 64 are actively providing services. Internet connection is slow with bandwidth range 32 kbps to 56 kbps for dial up and 64 kbps to 8 mbps for broadband. Under this scenario, as apart from government decision of building digital Bangladesh, the existing capabilities of ICT sector is likely to increase rapidly in bringing all upazilas under internet services and this will contribute in widening the scope of e-banking throughout the country. The overall computer density in the banking sector is 1.64. For foreign commercial banks (FCBs) the computer density is 45.34, whereas for NCBs the ratio is only 0.41. The specialized bank scenario is almost same as the NCBs, 0.43. On the other hand, private commercial banks have comparatively higher ratio, 4.94. As a whole 81.81 percent bank does not have any local area network (LAN), 30 percent have WAN (Wide Area Network) but for some banks many branches are outside of WAN connectivity. At present, all foreign banks of our country are using online banking system; they are invested a lot for their automation banking services. They are the pioneer of implementing electronic banking systems in Bangladesh, but now most of the private banks of our country are using electronic banking systems. In our country different banks are offering electronic banking services in different ways, some are offering ATM (Automatic Teller Machine) services, some are tele-banking and some are electronic fund transfer, debit card, credit card etc. Recently, the government's emphasis on building a digital Bangladesh, setting up ICT park, raising allocation for developing ICT infrastructure, waiving taxes on computer peripherals and other measures including the automation program of banking sector led by the Bangladesh Bank and competition among the scheduled banks in improving customer services have accelerated the prospects of e-banking in Bangladesh.

Banking has never been more important to our society than it is today. The way Bill Gates (2008) announced that "banking is essential, banks are not". This quotation means that the traditional banks branch is going to vanish in order to be surrogated by electronic banking which continues to attract new users.

E-banking services are increasingly becoming part and parcel of the business environment. The development of information technology, the ever changing consumer lifestyle and preferences,

and liberalization of the financial sector have served to foster stiff competition among financial institutions. Information pertaining to the facilities provided by the banks is normally posted on their websites (Balachandhler et al., 2003; Diniz, 1998) which can be described as informational, transactional, or beyond transactional. E-banking offers banking services outside of the normal opening hours (Rubino 2000). Customers can do their daily banking activities without having to wait in line or wait on hold for telephone banking services. It is especially appealing to customers who have a hard time keeping track of their finances (Deitel et al., 2001). E-banking offers electronic services that allow consumers to check the balances in their accounts, transfer funds among accounts, pay bills electronically as well as apply for loans, download information about accounts into their own computers, trade stocks or mutual funds, look at images of their cheques and deposit slips (turban et al., 2004). Bank customer willingness and motivation to adopt e-banking may be viewed using the technology acceptance model (Suh and Han 2002).

METHODOLOGY

The study is descriptive in nature. Data used in this study are collected basically from the secondary sources. For this purpose, different recognized journals, government rules and regulations, policies have been discussed. Various seminar papers and summary of discussion in those seminars, taskforce report of research organizations and some periodicals, national and international journals, newspapers, magazines, Bangladesh Bank Publications, published articles, books, newspaper, and websites have been surveyed. Primary data have been collected from the different banks of Dhaka City, Bangladesh through questionnaire. Major findings of the study are represented in the tabular and text format.

Opportunities

E-banking is now a global phenomenon. Apart from the development countries, the developing countries are experiencing strong growth in e-banking. The Bank of Thailand has created an industry payment body to involve other stakeholders, in particular from commercial banks which take leading responsibility for the development of e-payment system and technologies. Internet banking in Korea has increased at a rapid pace. Korea is also leading in online brokerage and mobile banking. In Southeast Asia, internet banking is also developing rapidly in Thailand, Malaysia, and Singapore and to a lesser extent in Philippines (Mia et. al., 2007). In Nepal, ATMs are the most popular electronic delivery channel for banking services.

The development of ICT in Bangladesh has moved very fast especially through the introduction of Mobile Switching Center (MSC) in 2006. Financial institutions also perceived the advantages from MSC activities and at the same time provide more benefits and opportunities especially in E-banking services. Few studies have been done related to the development of ICT in Bangladesh.

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Information Technology Revolution: Information technology revolution has converted the world into a global village. The thinking, structure, work-culture and functioning styles and changing on hour basis. IT has created tremendous job opportunities for the people around the globe as well made the organizations efficient and productive. In Bangladesh most of the organizations have already deployed IT to transform their process. IT as an enabler has broken all bounds of cost, distance and time.

Extremely Accessible: A banking customer's account is extremely assessable with an online account. Through internet banking customer can operate his account remotely from his office or residence.

Payment: Internet banking lends an added advantage towards payment of utility bills. It eliminates the need to stand in long queues for the purpose of bill payment. All services that are usually available from the local bank can be found on a single website.

Sharp Growth: Sharp growth in debit and credit card usage can be majorly attributed to e-banking. A customer can shop globally without any need for carrying paer currency with him.

Operating Costing: The concept of online banking has immensely helped the banks in putting a tab over their specific overheads and operating cost. The rise of internet banking has made the banks more competitive. It resulted in opening of better prospects and avenues for banking operations. Reduce extra time; Increase productivity and efficiency; eliminate duplication and wastage; cut down maintenance, and shortage cost; curtail security cost.

Removing Documentations: The online banking has ensured transparency of transactions and facilities towards removing the documentation requirements to a major extent, since majority of records under an e-banking set up are maintained electronically.

Job Creation: Create new opportunities of job for jobless; Participate in the country's economic health; proper planning and monitoring; Proper use resources. It creates job like administrator, system analyst, programmer, operator etc. and help to reduce unemployment problem.

Maximizing Profits: The first benefits for the banks offering e-banking services is better branding and better responsiveness to the market. The other benefits are possible to measure in monetary terms. The main goal of every company is to maximize profits for its owners and banks are not any exception. Automated e-banking services offer a perfect opportunity for maximize profits.

Easy Maintenance Tools: The main benefit from the bank customers' point of view is significant saving of time by the automation of banking services processing and introduction of an easy maintenance tools for managing customer's money. The basic benefits of e-banking are as follows: increased comfort and timesaving transactions can be made 24 hours a day, without requiring the physical interaction with the bank.

Economic Benefits: E-banking serves so many benefits not only to the bank itself, but also to the society as a whole. E-banking makes finance economically possible: (i) lower operational costs of banks (ii) automated process (iii) accelerated credit decisions (iv) lower minimum loan size to be profitable.

Challenges

E-banking in Bangladesh is in its earliest stage of development. Most of them are basic services only the deregulation of e-banking industry coupled with the emergency of new banking technology is enabling new competitors to enter the financial services markets quickly and efficiently. However it needs to be recognized that perception norms and an improvement in functioning of e-bank. There have some challenges of e-banking in Bangladesh are as follows:

Customer Acceptance: Proper understanding of the customer aspect of the e-banking. It is known that computer literacy in Bangladesh is still very low and is barrier in fast acceptance of internet. Mindset of the Bangladeshi customer needs to be changed by giving awareness about technical terms in e-banking.

Cost of Technology: In connection with Startup cost e-banking is huge at initial level for acquiring personal computer and other equipment; oneself to do online banking is still not with reach of the middle class and upper middle class customers. The cost of maintenance of all equipment like, modem, routers, bridges and network management systems. The cost of sophisticated hardware and software and skill level of employees needed.

Security: In a paper less transactions, many problems of security are involved. A secrecy threat as circumstensive decision to cause the economic hardship to data, destruction of network

resources disclosure, modification of data or fraud, denial in services and distortion of information. Providing appropriate security of using encryption techniques, implementation of firewalls and virus protection software etc.

Legal Issues: In today's bank world, legal frame work for recognizing the validity of banking transactions. Conducted through the NET is still being put in place? Information technology act provides security & legal frame work for e-commerce transactions. Information technology act or RBI suggested that criterion of Digital Signature Certification Board for authentication of electric records and communication with digital signatures.

Restricted Business: Not all transactions can be carried electronically; many deposits and some withdrawals require the use of physical services. Some banks have automated to their customers but still largely depend upon manual process. It result, most of clientele were restricted by lack and awareness and due to technical problems.

Transparency in Offering Services: Banks will strive to adopt best practices in corporate governance and Corporate Social Responsibility (CSR) this will enhance image and can help them to enhance their confidence of international investors. Banks much towards better corporate governance standards and adoption of uniform accounting standards and disclosure requirements.

Adopt Proper Organization Structure: Banks may require to adopt flatter organization structure for judicious blending of needs for greater delegation of power, decentralization, customer centric business models, quickly reaction of customer needs, learn continuously from customers, provide customer access, whatever and however they want to transact and interact especially for catering younger IT survey population.

Risk Management: As online transaction risks are many and verified, risk management must take into account the state of technology, the banking industry, the non-bank competitors for payment business and adoption rate of new technology by the consumer. Bangladesh Bank issued a guideline in relation to Internet banking that compels all banking institution, which offers Internet banking services to adopt a rigorous risk management structure and system. This includes many online defensive mechanisms such as virus detection, intrusion management and authentication tools. (Sani, 2000)

IT Infrastructure: Marketer cannot succeed in exploiting Internet and ICT unless the right IT infrastructure and development are in place to meet the demands of the users. In the ICT area significance has been placed on perceived usefulness as a significant contributor to attitudes and thus adoption of new technology (Fenech and OCass, 2001)

E-Commerce: Customer satisfaction may increase based on the want and need. Times, power of buying, and status. Today's companies have moved from a product and sales philosophy to a new marketing philosophy. Customer-centered companies have emphasized a better understanding of customers need and want and then translated them into the capability to give customers what they really need and want. The technology of E-Commerce determines what can be offered to customers, but only customers determine which of those technologies will be accepted. The key to success for E-Commerce lies in knowing customers (Lin, 2003)

RECOMMENDATIONS

To implement e-business successfully in Bangladesh following recommendations are given below:

Successful team building and security system: Successful team building with a coherent manner for developing human ware, hardware, software and web ware are required to increase e-business process in a systematic way.

Definite career path for hardware and software engineer: Career path of hardware and software engineers should be properly designed. Otherwise professionals will be motivated and they won't work with job satisfaction.

Adequate Research Work: Banks and business organizations especially corporate houses should have adequate research, skilled manpower and technology driven strategies in this regard.

Banking Software: Initiatives to develop integrated e-banking software through in house built may be taken. Preference should be given by the bank authority to sue local software over foreign software.

Infrastructure Development: Internet penetration is a key factor for the growth of e-banking. Christiansen (2001) reports that the take-off phase of Internet banking needs at least 30 percent Internet usage among the populations. Moreover, since Internet penetration alone is not adequate for online banking expansion, the government may provide subsidy for surfing cost, organize training facilities with private partnership, widen multiple access facilities like web, telephone, ATM, etc., and initiate motivation programs for the users and the target population.

CONCLUSION

Technology has enabled the world to step into a new arena. To keep pace with advancing world it has become imperative to adapt new technologies in business and banking sector. At present, Bangladesh is trailing behind in acquiring the required quality of banking services to effectively complete in the global market. Therefore, the banking system needs up gradation for which urgent measures are needed to create a level playing field for rapid expansion of e-banking on the country. Despite the constraints, more efficient use of exiting capabilities in developing the services can pave the way to quality provision of e-banking in Bangladesh. The growth of information technologies in the world has been phenomenal. Thanks to these technologies, banks are being able to reach their customers anywhere at any time. Compared to bank abroad, Bangladeshi banks offering online services still have a long way to go. For online banking to reach a critical mass, there has to be sufficient number of users and the sufficient infrastructure in place.

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