E-Business with Special Reference to On-line Banking of Bangladesh: An Analysis

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Abstract

Due to recent remarkable development in Information and Communication Technology (ICT), a global revolution in e-business has set in, but Bangladesh lags far behind other countries to avail of the opportunities of e-business. However, Bangladesh Bank has recently started on-line banking. The article analyzes the data that were collected from local Bangladeshi banks and suggests that in order to survive in the integrated global financial market, the country must be well prepared. Proper utilization of Information and Communication Technology (ICT) is essential, which can be achieved by creating low cost community information and communication centers (CICCs), initially in the rural areas and later, upgrading them into community networks. This may be helpful towards attaining digital Bangladesh by the next decade. E-business should be encouraged as it becomes a vital medium of transaction to improve total quality management of organizations, especially bank management, through ensuring proper on-line banking system as observed in this paper.

Keywords: E-business, On-line banking, ICT, Globalization.

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1.   Introduction

Recent developments in Information and Communication Technology (ICT) have set in a global revolution in e-business especially in the banking sector. Banks of Bangladesh, too, are keen to introduce e-business as the challenges set by the global trend in business arena cannot be met under the traditional banking system. The present Government has already declared that Bangladesh will become digital by 2021.

Internet has opened a new horizon of e-business, creating immense opportunities for marketing products as well as banking internationally. Government as well as international organizations generally recognize that underdeveloped banking causes some costly obstacles to the country's economic progress. Investors are frequently scared to invest because of its sluggish banking system. Hence the task of making the banking system of Bangladesh of international standard deserves the highest priority.

On-line banking system is a way of conducting, managing, and executing banking transactions, utilizing information and communication technology (ICT) and electronic communication networks such as the Internet, intranet and extranet. The environment of electronic banking requires authentication procedures for electronic payment system, network environment, computer hardware and software, electronic hardware, legal bindings, etc. The security and authentication of modern banking are very much dependent on cryptography and its applications. E-business can be expedited by the on-line banking processes.

Ramakrishnan (2001) argues that Internet banking primarily increases information security risk and many banks have not sufficiently focused on its effect on other banking-specific risks. Risk management disciplines have not evolved at the same speed, and many institutions, especially the smaller ones, have not been able to incorporate Internet banking risk controls within their existing risk management structures. Very little research work on e-business has been done and little on-line banking expansion has taken place in Bangladesh, but banks in Bangladesh, especially private banks, are willing to offer this service.

E-business brings a new channel of distribution process, which leads to a change in the regulatory issues, and cross border trade through emerging new marketing distribution channels. This reduces transaction time, results in boundary less trade, and accuracy. In developed nations, e-business creates an opportunity to directly sell the product to the customer without using any intermediaries. This process occurs mainly in the four markets: business to business (B2B), business

to consumer (B2C), business to government (B2G), and consumer to consumer (C2C).

Bangladesh can benefit from an effective utilisation of Information and Communication Technology, just like any other country. Social and economic disparity and lack of Internet accessibility are pulling the country backward. E-business process creates an opportunity for doing business through the real time sharing business. Organizations can take help to transact through e-business solutions from around the world where on-line facility is available. Business process of the globe is gradually becoming complex, but e-business especially in the banking sector can help get away from these complexities.

Literature Review

According to Federal Financial Institutions Examination Council (2001), USA, the existing authentication methodologies involve three basic "factors": identification of users (e.g., password, personnel identification number (PIN), etc.); user processes (e.g., ATM Card, Smart Card etc.); and users' physical identities (e.g., biometric characteristics, such as finger print, retinal pattern etc). In fact the study of electronic security measures in banking has become an important topic of research now. Rahman (2001-2002) observes that issues relating to electronic fund transfer require security, availability, authenticity, non-repudiability and audibility.

Singh (2002) warns that merely deciding to adopt a new business model does not guarantee success. Implementing a new business model in an established organization many cause considerable disruption. Technical adjustments, such as integration, debugging, software integration and effective web sites are necessary, but managerial and organizational adjustments requiring planning, allocation of resources and responsibilities, coordination between different groups and departments, negotiations and human resource initiatives as well as adaptation to the e-culture are also essential.

Ali (2003) argues that Bangladeshi companies and organizations have several problems to start full swing e-business. These include limited resources, backwardness in technology, managerial inefficiency, socio-infrastructural problem such as corruption, default culture, poor law and order situation, rampant corruption, strike etc.

Huda, Momen and Ahmed (2004) observes that the banking sector in Bangladesh is clearly recognizing the importance of information technology for their continued success. Hoq, Kamal and Chowdhury (2005) argues that a key reason why e-commerce, especially the business-to-business segment, is growing so quickly in the developed countries is its significant impact on the reduction of costs associated with inventories, sales execution, procurement, intangibles like banking, and distribution. If these cost reductions become pervasive, e-commerce has the potential to usher in large productivity gains. Achieving these gains is therefore contingent on a number of factors, including access to e-commerce systems and the needed skills. However, what is unique about e-commerce and its efficiency gains is that it promises a premium on openness. To reap the potential cost savings fully, firms must be willing to open up their internal systems to suppliers and customers. This raises policy issues concerning security and potential anti competitive effects as firms integrate their operations more closely.

Souter (2005) argues for developing tele-centres, which have the following characteristics: Tele-centres may be: Private entrepreneurial ventures (including cyber cafés); Promoted by civil society organisations; Sponsored by government; Sponsored by development agencies. Some very large 'multi-purpose community Tele-centres' have been promoted by the ITU and other international donors. These offer a very wide range of services, including: Computer training, Distance education, and Tele-medicine. Tele-centres tend to be used by the more skilled members in the society. Sponsored tele-centres have often proved difficult to sustain after the end of donor funding. Entrepreneurial cyber cafés have proved much more sustainable in many countries.

Uddin and Islam (2005) observes that the multifarious projections of ICT in human life plead a winning case for institutional integration of ICT related components in rural support programs taken by Governments and NGOs. Chaffey (2006) dealt with strategy and applications of E-Business and E-Commerce in a logical but robust manner. Pires and Stanton (2007) comments that policy wise government must recognize that the ability of countries to engage in e-commerce is tied both directly and indirectly to their attractiveness for FDI.

Ahmed and Islam(2008) observes that in adopting e-banking services, banks in developing countries are faced with strategic options between the choice of delivery channels and the level of sophistication of services provided by these delivery channels. Shamsuddoha (2008) argues that in Bangladesh the banking industry is now mature to a great extent than in earlier periods. It has developed a superb image in various activities, including electronic banking. Now modern

banking services have been launched by some multinationals and new local private commercial banks. Electronic banking is now one of the most demanded and latest technologies in the banking sector.

Ahshan (2009) argues that on-line transaction would boost the gross domestic product (GDP) growth and thus help Bangladesh achieve the Millennium Development Goals (MDGs). In the era of globalisation, the Internet makes the world smaller, and e-commerce facilitates marketing and shopping from home. E-commerce facilitates business with customers over the internet. In e-commerce, customers can buy goods and services over the internet.

Nyangosi, Arora, and Singh (2009) argue that banking through electronic channels has gained increasing popularity in recent years. This system, popularly known as 'e-banking', provides alternatives for faster delivery of banking services to a wide range of customers. The overall result indicates that customers in India and Kenya have developed positive attitudes and they attach much importance to the emergence of e-banking.

Shah and Clarke (2009) focused on human, operational, managerial, and strategic organizational issues in e-banking and argued that e-banking management could help expedite doing business through using the electronic medium. Rahman (2010), the present Governor of Bangladesh Bank, notes that Bangladesh Bank has achieved a historic milestone in the trade and business arena, departing from conventional banking with the introduction of e-commerce recently, a giant stride towards digital Bangladesh.

Objectives of the Study

The study has been undertaken with the following objectives:

i) To examine the infrastructure situation of the country, which is necessary to promote e-business and on-line banking in Bangladesh (addressed in Section 2);

ii) To observe the present status of e-business and on-line banking in Bangladesh (addressed in Section 3);

iii) To make some recommendations so that e-business can bring fruitful results in the country (vide Section 4).

Methodology of the Study

The study is based on secondary sources and also field survey. A number of published articles, books, and websites have been reviewed, all are which or listed

in the References at the end of the article. The related information regarding the present status of on-line banking has been gathered through field visit to the head offices of forty-nine banks and their IT and MIS Departments. Data has been collected through visits to Bangladesh Bank as well. Moreover, opinion has been gathered from 500 randomly selected bank customers who make on-line banking transactions. These customers are mostly from Dhaka and Chittagong cities.

Hypothesis of the Study

Null Hypothesis (H$_0$): E-Business especially with the help of on-line banking can manage the economy of Bangladesh in a better way through offering more customer satisfaction.

Alternative Hypothesis (H$_A$): E-Business especially with the help of on-line banking can not manage the economy of Bangladesh in a better way as customer satisfaction decreases.

2.   Present Status of ICT Infrastructure in Bangladesh

Globalization means a situation of free interstate flow of investment, commodities, and technology. Globalization influences the socio economic and political condition of all countries. There are both opportunities and threats from globalization for a country in an integrated world. Bangladesh policy makers must be careful to minimize the dangers created by globalization.

Bangladeshi companies and organizations have several problems to start full swing e-business. These include limited resources, backwardness in technology, managerial inefficiency, socio-infrastructural problem such as corruption, default culture, weak law and order conditions, rampant corruption, strike etc. Network is a mode of communications with computers. Electronic Payment Systems for e-business call for broad geographic presence and acceptance by a large number of merchants or programs. Participants in an electronic payment system may include users, financial institutions, business personnel, industrialist, merchants, third party processors etc. One can classify the networks of computers as local area network, metropolitan area network, and worldwide area network. Multiple computers connected through telephone lines, cable systems, and wireless technologies are also required.

WiMAX stands for worldwide interoperability for microwave access, which offers wireless transmission of data via different transmission modes, from point-to-multipoint links to portable and fully mobile internet access. During the trial

launching of operation of the country's first-ever wireless broadband technology WIMAX, the Finance Minister urged upon entrepreneurs of the telecommunications sector to reach the digital communications system to the doorsteps of the rural people. He hoped that the WiMax technology would be available at every divisional headquarter within a year (Source: http://www.bangladeshinfo.com/ gadgets/news_inner.php?nid=2343, July 22, 2009)

Telephone density is awfully low in Bangladesh, in fact far less in comparison with other developed nations of the world as well as neighboring countries. In one estimate for 2008 in Bangladesh, there were 36.4 million Mobile Phones, 1.2 million Fixed Lines (PSTN) and some 37.6 million telecom users with a tele-density of 26.8 percent (Kabir 2008). Outside Dhaka, a few computer network infrastructures have been developed so far. Apart from some educational institutes outside Dhaka, however, most of the LAN setups are Dhaka centric. Bangladesh has been connected to the worldwide Internet Super High Way since 2006 through an under sea submarine cable. But this single submarine cable frequently faces disruption resulting in slow bandwidth.

Most people in Bangladesh live in villages where amenities for ICT are almost nonexistent. A huge digital divide exists between the city of Dhaka and the rest of the country. Private-public partnership is a crucial issue for information and communication technology (ICT) development and application. Private enterprise and capital can lead the ICT revolution in Bangladesh, but that would require the government to provide an enabling environment. The supportive role of the forward-looking government of Malaysia can be a good example for Bangladesh to emulate in this regard. The infrastructure deficiency of Bangladesh is now a major obstacle to the expansion of e-business in the country. Rapid growth in ICT is, therefore, not possible without massive investments in ICT infrastructure and human resource development through quality education. Still now the call charge of cell phone is very high in Bangladesh.

Under the private initiative, Internet was started in 1996 by ISN in Bangladesh. They are the first ISP operator in this country. Still now all the Internet service providers have the server abroad, for which they are facing competitive disadvantage, as cost remains high.

Security problem is still high in this country. Lack of digital accessible personnel is a real problem for the country. Moreover, some software developers of the country are not well conversant with the market demand for which they cannot supply faultless application software.

Policy makers of the country are not well aware about the benefits of e-business. As such they do not put much importance to a proper and systematic development of the process of e-business. In this connection it may be stated that Bangladesh Bank has recently implemented automated clearinghouse through utilizing MICR procedure. But in developed nations MICR procedure was replaced long ago by more sophisticated procedures such as cheque truncation process.

Total number of Banks in Bangladesh are now forty nine (vide Bangladesh Bank, Scheduled Bank Statistics). On the basis of utilization of electronic devices, Bangladesh's Banks can be subdivided into three groups: (i) Foreign Commercial Banks and some of the second and third generation Private Commercial Banks: Fully Online banking; (ii) First generation private banks and some of the second generation private banks: Medium range Online banking system; and (iii) Nationalized Commercial Banks, Specialized Banks and a few foreign Bank branches of this subcontinent : Low grade online banking system.

At present, banks in Bangladesh use very limited electronic banking services. It is expected that banks can count on more profit and offer better service to its customers by introducing on-line banking facilities. The foreign commercial banks operating in Bangladesh like Standard Chartered Bank, Citi Corp. N.A. and the HSBC are 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.

Among the local banks, private banks are ahead of the public banks. Prime Bank, Dhaka Bank, BRAC bank, Dutch-Bangla Bank, Eastern Bank, and Mercantile Bank have already adopted electronic banking facilities. Apart from these banks, Mutual Trust Bank also   introduced ATM service. Among the four Nationalized Commercial Banks (NCBs), Janata bank has some access to the electronic banking facilities. Bangladesh Bank, the central bank of Bangladesh, is also trying to formulate a wide structure of electronic banking facilities. All of the private banks are offering limited on-line banking services. Most of these banks only offer services by providing ATM card. They do not offer wide range of internet banking facilities, which are the main advantages of e-banking. Depositing money in any branch and withdrawing money from ATM machine is now treated as the best e-banking facility in Bangladesh, where electronic money transfer has begun only in a limited way. Sonali and Agrani banks are providing on-line banking services in a limited scale. So, too is the Rupali Bank Limited. BASIC bank, which is 100 percent publicly owned but serves as a private sector bank, has also adopted new technologies in its banking operations.

3.   Present Status of e-Business and On-line Banking in Bangladesh

A broad spectrum of internet banking services, a subset of electronic finance, is available in Bangladesh with different degrees of penetration. The credit card is available from VISA, MasterCard and VANIK. Some foreign banks provide electronic fund transfer (EFT) services, but it is still 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 increases access to this type of electronic banking service. The network will gradually be extended to other parts of the country.

Last couple of years witnessed a dramatic improvement in the awareness of the banking sector regarding the comprehensive application of ICT. Local software companies have begun competing with one another to supply complete banking software with like features. However, many forms of electronic banking service are still not possible to offer in Bangladesh at this moment due to the absence of appropriate technology infrastructure and legal infrastructure. Those products would be very useful for export-oriented industry to reduce lead-time in export and keep comparative advantage in the international market.

For sending foreign remittance a legendary decision was taken earlier. Now four nationalized banks and 15 private banks are working collaboratively with mobile phone service operators. Remittance can now be sent via Bangladesh banking channels through account transfer (normally it takes 3 working days) or in the form of instant cash transfer (takes 24 hours). Foreign residents can send their money and PIN (personnel identification number) through mobile phone. As a result, money transfer has become very easy, quick and hassle free. In terms of e-banking facilities this is regarded a legendary step in Bangladesh economy.

The dream to eradicate digital divide has not come into reality till now, but the process has started, although very slowly. Bogra, Kushtia, Barisal and Modhupur village of Tangil were brought under Internet banking on 2nd May of 2000. This will gradually give following services: e-marketing, e-shopping mall, e-marriage scheme, e-mail, e-tender, e-voting/polling, search engine, chat, e-commerce, e-stamp, e-Cash, e-music, e-entertainment, e-treatment, e-Advocacy etc. e-governance can help achieve good governance in the country.

Progress of linkage with fiber optics is going on. Its successful implementation will be helpful. Government will need to take proper initiatives to spread the

computerization process for that purpose. The parliament members of the country must also be aware of the benefits of Information and Communication Technology (ICT); otherwise it can not be successful and will not bring any dramatic change in the economy.

The Entrepreneurship Development Fund (EDF) of Bangladesh Bank regards IT as a thrust sector. But entrepreneurs are not getting real support from the banks to utilize the fund. The project profile evaluation procedure for IT industry is not correctly done. Only a few companies can avail of the fund. IT-related companies are trying to develop some e-business but no remarkable change has yet occurred. Most of the reputed companies do not have the basic idea on the execution process of e-business. If a proper procedure of e-business can be developed in the agribusiness sector, especially in the rural areas, through utilizing e-technology, it will be beneficial for the producers of agricultural commodities.

Acute shortage of human resources to do on-line banking business is one of the main reasons for e-business to lag behind. This problem must be resolved if Bangladesh is to move ahead and remain competitive in the digital global economy. It should be realized that for Bangladesh, a country of 150 million people, there is no other option for us than to join the current global trend. According to a news report published in The New Nation on 28th August 2009, the government has formulated a policy on the national information and communication technology as part of its announced plan for digitization of the nation. The policy has earmarked activities in three phases of short, medium and long-term plans to be implemented within 2021. The government aims at doubling the gross national product (GNP) during this time to achieve the goal. The policy details suggest a number of activities, including spreading the use of keyboard by functionaries at different levels, encouraging the use of standard code by software sellers, developing a national web-portal and popularizing the use of e-citizen service, paying service charge through mobile phones or ticketing etc. Land registration, passport renewal, digitization of police case diary and case position in the court, spreading the use of broadband internet throughout the country, and such other essential services may also be brought under the scheme. The new policy will be the common property of all departments and organs of the state targeted to develop a digitized nation within the stipulated time.

Most of the existing banking system in our country is manual (paper based); that's the reason why it is awkward, slow and error-prone. It fails to meet the customers' demand and, at the same time, causes significant losses both for the banking authority and traders. Electronic banking, on the other hand, does not have any

such problems. Instead, it opens up such opportunities as increased foreign trade and foreign investment. At present, the weekly bank holidays in Bangladesh are Friday and Saturday, whereas in most parts of the world it is Saturday and Sunday. So Bangladesh has only 4 banking days for foreign exchange transactions. With e-business facilities still in preliminary stage, it is debatable if this limited time period for banks' transactions would bring any good to Bangladesh. Government should consider this case carefully.

According to a report entitled "Bangladesh is developing electronic payment infrastructure" (May 20, 2008), the Securities and Exchange Commission (SEC) of Bangladesh asked the IT Consultants Limited (ITC), a manager of Q-cash brand of ATM and different cards, to raise their paid-up capital from the current Tk. 370 million to Tk. 500 million if the company desired to raise capital from the secondary market through initial public offerings. This measure is believed to extend the sphere of the company's influence. The company began as a private limited business in 2001. But now it is the local leader in electronic payment systems which are developing in the country with increased speed. ITC possesses necessary tools to process transactions for banks and retailers. It has the largest independent network of more than 100 ATMs in the country. There is also a wide network of point-of-sales (POS) centers operated by the company. (Source: http://www.ecommerce-journal.com/news/bangladesh_is_developing_ electronic_payment_infrastructure_0?drgn=1).

According to a report published in The Financial Express (3 November, 2009), Bangladesh Bank gave a ground breaking directive to commercial banks through a circular issued on 2 November, 2009, saying that from now on their clients would be allowed to pay their power, water, gas and phone bills from bank accounts and transfer funds within a bank or to other banks. The central bank said that on-line 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. According to Bangladesh Bank, the country had about 400,000 credit card holders at the end of June last year. Payments and transactions by credit cards were about Tk. 11 billion in June 2008 — one of the lowest in the world. Yet, however, some experts, including software specialists, have urged caution, saying that the banks will still need massive IT backbone to ensure that on-line transaction is not misused.

Meanwhile, Bangladesh Bank started the Bangladesh Automated Clearing House (BACH) on trial basis from 8 November, 2009. It is gathered from Bangladesh Bank that BACH completed its SIT (System Integration Testing) phase, in

January 2010, and in the first phase, only Dhaka was brought under this umbrella, which means that all bank branches in Dhaka region are now part of BACH. Bangladesh Bank (BB) in its Dhaka office is using 7 inch * 3.50 inch MICR encoded cheques in BACH. Cheque truncation is done; some banks truncating cheques fully (meaning at branch level) while some others partially (meaning at a central point). BB also provides bureau service, if needed by any bank. Clearing is for inter-bank transaction and is settled by BB after t+1 days.

3.1. Customers' Response

The researchers conducted a survey of 500 bank clients that receive on-line banking services to obtain their opinion on the system. Their responses are presented in Table 1.

Table 1: Customers' opinion on On-line Banking

Comment	Dhaka (In percentage)	Chittagong (In percentage)
On line Banking is good	79%	65%
On line banking provides good Customer service	72%	61%
Just in time services in Banking can be provided	56%	48%
Bank Personnel behave properly	52%	56%
Technologically improved but quality of banking service worsen off	51%	44%
Better E-business environment	67%	61%

(Source: Compiled on the basis of Customers' response)

As can be seen in Table 1, customers' opinion on the performance of on-line banking is mixed, though most of the customers believe it provides good customer service. This supports the null hypothesis of the paper. But the problem is that about half of the customers consider e-banking as technologically improved but the quality of banking services worsens off. In respect of other queries in the opinion survey, the response of most of the customers is positive, which indicates that the null hypothesis is correct.

3.2   Problems of e-Banking

E-business is yet to make any notable progress in Bangladesh. Mass awareness is not feasible. The country faces problem of developing human-ware. Without preparing human capital of international standard, the country will not be able to compete in the global market, and successful e-business will not be feasible. In

the absence of quality human capital, software development will falter and market access to foreign countries will be limited. Moreover, as regards production of hardware, especially computer and its accessories, the entrepreneurs are not taking any sort of strategic planning. The country should adopt the latest technology but due to the lack of vision the users are adopting old technology. The introduction of MICR for Bangladesh Bank automation procedure is an example in point.

The shortage of technology-based human resources and poor telecommunication infrastructure needs to be overcome to break the low equilibrium trap. Bridging the digital divide would provide technology-based human resources, which will contribute to gross domestic product (GDP), national savings and investment. Problems identified in on-line banking system in Bangladesh are numerous. Some of them are as follows:

1. Inefficiency and lack of adequate knowledge of the bank management about on-line banking
2. Lack of proper strategic plan to gain and retain market share of the indigenous banks
3. Lack of international standard communication channel
4. High cost of establishing on-line banking system
5. Inadequate back and front office management
6. Lack of integrated plan among banks and the Central Bank authority
7. Inefficient Clearing House Facilities
8. Inadequate software
9. Legal barriers and inappropriate policy framework

Customers intending to take e-banking services are not always able to bear the cost of additional equipments like computer, Internet etc. Using Internet facility is still very costly and people have little knowledge to operate computers. A few cyber café are available but people do not feel safe to use these facilities for e-banking purposes. As a result total numbers of customers are limited. In these circumstances investment for establishing e-banking facilities may not be profitable.

On-line banking involves some financial risks as well. The major risks include 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 encouraged); 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 mitigation policies and strategies are important for the scheduled banks while performing on-line banking.

3.3. Electronic Business and on-line Banking from the Managerial Perspective

Managers at various levels of organizations especially in a least developed country like Bangladesh will have to play vital roles to successfully implement e-business. They are the key forces to initiate dedicated strategy to change from the traditional business processes to the technology driven business processes. This will not only involve huge costs in the transition period of the organizations but also require adaptability of the human being to the new processes. Due to changing global environment, to achieve success in the global as well as domestic business, organizations are often forced to change their strategy and adopt e-business.

Managing external as well as internal pressure should be coordinated by the Management so that e-business can supersede traditional business processes of organizations. Flexible innovative changes are required for the organizations to succeed in the transformation process. Strong motivations by the management towards all levels of personnel of the organization are required. Managers' function to implement e-business is a difficult task for which their mindset should be very strong and they should consider not only global considerations but as well domestic conditions.

E-business can add value through knowledge management as it helps to render new services to the customers. Successful e-business depends on the sharing of strategic knowledge for which dissemination of the information and free flow of knowledge around the globe is required. If the organizations of the country still depend on traditional business model, they will be obsolete in a short period of time. On-line banking can provide twenty-four hour banking facilities. Through electronic data interchange, customers are able to transfer money from one branch to another. Letter of credits can be sent through SWIFT. Actually on-line banking provides faster, reliable services. Encryption and decryption can be used to send money from one place to another. As such, on-line bank management handles customers in a far better way.

But in Bangladesh the key people of the business, or in the other words the decision makers, are generally aged and experienced in their old line of business

and hence are unenthusiastic about new technology. It is difficult for people who do not have much technical knowledge to understand the necessity of technology in this continually changing business world, partly because they do not know what is possible beyond their own experience of using computers. So the pace of computerization in various offices and sectors is low.

Another problem in initiating e-business in this country is that the management is reluctant to accept something new. Management prefers to maintain the current business model and that is why they are reluctant to introduce any thing new. To avail of the advantage of e-business, firms have to invest in software and infrastructure development. But the firms are not interested to invest because they consider the expenses as cost, not investment.

Bangladesh is a developing country where people are not much aware of technology. The owners are uncertain about the benefits of e-technology, which requires huge investment. This is   a great drawback to initiate e-business. However, the present government is very keen to develop digital Bangladesh by the next eleven years.

4.   Concluding Remarks and Recommendations

The customers' survey conducted for purpose of the present study indicates that e-business can provide better customer services. Creation of knowledge-based person can improve the economic condition of the country. As such, the development of human ware should be given due importance. E-business can play an important role in poverty reduction only when it can effectively spread business both in rural and urban areas, create job opportunity, remove middlemen in the business process, and increase both income and savings.

Rahman (2010) rightly pointed out that a holistic approach needs to be taken by all stakeholders to reach the IST facilities to the doorstep of the common people. Actually e-technology can be utilized   with other computer peripherals to enhance communication, skill and understanding and provide a sound basis for implementing e-business. It can be helpful to accelerate the learning process, including the acceleration of the development and application of knowledge and technology.

Business sector should be encouraged to make their own investment in the application of ICT in production, trade and services. Procurement and utilization of funds from national sources, both public and private, should be pursued. International development and donor agencies should be approached for funds to

set up necessary infrastructure and develop human resources, conforming to the objectives of ICT policy.

Bangladesh is in the group of the world's most underdeveloped economies and one of the obviously vital reasons for this is its poor banking system. Government as well as different international organizations generally recognize that underdeveloped banking causes some costly obstacles on the way of the country's economic progress. Investors are frequently scared to invest because of its sluggish banking system. Hence the task of making the banking system of Bangladesh of international standard deserves the highest priority.

The global financial system is getting stronger day by day and it is being strengthened by e-business. Around the globe, consumer market has greater potentialities, and therefore, producers must be active lest they lose their share in the global market. Tele-centers must be developed in the country. The rate of call charge of cell phone should be lowered. The hidden cost in cell phone should be removed. However, on-line banking is not free from risk. Not only security risk, but cost of transactions may rise as well.

Recommendations

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

- Digital Bangladesh by 2021 should be established to develop the economy. Successful team building in a coherent manner for developing human ware, hardware, software and web ware are required to increase e-business in a systematic way.

- Greater emphasis should be given on security system and to prevent fraud so that on-line banking or any other electronic fund transfer can be properly handled. Career path should be properly designed for the experts in this sector. Otherwise manpower will be de-motivated and they won't work with job satisfaction.

- In Bangladesh, the on-line banking system is still in a preliminary stage. Government should create a congenial environment for this sector.

- The Clearing House operation in Bangladesh should be fully automated. Banks should have adequate research and technological background in that regard.

- Initiatives to develop integrated e-banking software should be taken.

- Banks can charge normal profit to enlarge the market size on the on-line banking products. They should have their own strategic plans to implement on-line banking.

- Creating awareness and consciousness among the clients of the banks are also required.

- The country needs innovative polices for strengthening of public institutions and development of e-business with the help of ICT facilities and the related information network to create the environment for ICT development.

- ICT application and development of software are very much dependent on the quality of the workforce, and supportive infrastructure and environment. This can be achieved by creating low cost community information and communication centers (CICCs), initially in the rural areas, and later, upgrading them into community networks.

- E-business can help improve total quality management. This can also ensure quality assurance of banking through the on-line banking system.

- Provision for adequate training and technological support to develop the manpower through partnership between government and non-government organizations is required.

- Public private partnership (PPP) for e-business should be encouraged.

- Business sector as a whole should be focused on using E-business. It should be accompanied with e-governance system. It should move towards other areas like e-tender, e-trafficking, e-ticket, e-learning etc.

- More high-speed fiber optical data communication infrastructures should be established for speedy data communication both internally and externally.

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