

Measuring the Quality of E-Banking Services through Gap Analysis: A Study on the Banking Industry of Bangladesh

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Abstract :

The present of Information & Communication Technologies (ICT) has redefined the business culture of the banking industry to provide improved service for greater customer satisfaction. Towards this end, the incorporation of Electronic Banking (E-Banking) facilities by the leading banks is a value addition to the banking industry of Bangladesh. But still many banks are not prepared to provide the standard quality service of E-Banking. It has thus become inevitable to ensure a quality service oriented competent and efficient automated E-Banking system for the banking industry to cope with the challenges and opportunities created due to the competition among the banking entities, rules and regulations of the Government and the central bank, high expectations of the customers for excellent, unique and customized E-Banking service. All these prompted the concerned banks to ensure proper functioning of the already launched E-Banking services, measure and check their quality and the continuous development of the same to make delighted customers by providing optimal level of satisfaction. With this end in view, this paper measures the service quality of the E-Banking industry of Bangladesh through GAP Analysis so that a satisfactory and viable standard of service quality can be ensured for the ultimate customers. The study also explores the conceptual aspects of E-Banking, service quality and customer satisfaction, the gaps involved in the delivery of quality service, SERVQUAL Scale based primary survey results to measure the quality of E-Banking services provided by the public (i.e., Government) and private sector banks, etc. and places some recommendations for the concerned banks to close the gaps in the delivery of quality E-Banking service.

Keywords: *E-Banking, service quality, Gap Analysis, SERVQUAL, Customer Satisfaction*

1. Introduction

The new millennium trends in the development of the service oriented organization have redefined the business culture to a great extent. As a result, it has been difficult to survive in the truly competitive global market of the present day. Therefore many organizations have been compelled to formulate and implement customer centric business philosophies. The banking industry is also not an exception to this very trend. Moreover, in this sector, the provision of high-quality customer service is of fundamental and paramount importance and hence many of such banks irrespective of private and public sectors have already endeavored to improve their service provisions to retain customers. The incorporation of E-Banking facilities in this regard is a value addition to the banking industry of Bangladesh. Towards this end, the regular use of

convergence technologies such as computing, wireless communication, networking, etc. in the banking industry has brought a revolutionary change through E-Banking services in the traditional way the banks would do business. It has thus become inevitable to ensure a quality service oriented competent and efficient automated system for the banking industry to cope with the challenges and opportunities of the new change towards a digital economy. This is because most of the modern banks have launched E-banking as their new and prompt delivery channel to reach the mass market (i.e. customers). But there are already a number of challenges created due to the competition among the banking entities, rules and regulations of the Government and the central bank, high expectations of the customers for excellent, unique and customized E-Banking service. All these prompted the concerned banks to ensure proper functioning of the already launched E-Banking services, measure and check their quality and the continuous development of the same to make delighted customers by providing optimal level of satisfaction. This paper analyzes the main criterion for measuring the service quality of the E-Banking industry of Bangladesh through Gap Analysis so that a satisfactory and viable standard of service quality can be ensured for the ultimate customers.

2. Rationale of the Study

Being in a fiercely competitive industry, the ability of the banks to differentiate themselves on the basis of price is limited (Singh, Chhatwal, Yahyabhoj and Yeo, 2002). This is because the modern banks have been the distinctive customer service oriented entities. E-banking, therefore, is considered as a timely initiative to cope with those of changing customer demands which in consequence lead to two classes of surviving banks that are very large banks and small niche ones (Dewan and Seidmann, 2002). Through the E-banking, smaller banks can compete by offering portals to the services offered by larger banks (Holland and Westwood, 2001) while the other banks can use E-banking to focus on customer needs in order to gain the strongest competitive advantage (Wind, 2001). With this end in view E-banking is offered by many banking institutions due to pressures from competitions (Yang, 1997) and rise in the expectations level of the customers and the other stakeholders. Hence, the study to assess the quality of E-Banking service is very significant.

3. Objectives of the Study

The main objective of the study is to measure the quality of the E-Banking services of the banking industry in Bangladesh through Gap Analysis. In the light of this main objective the current study also focuses on the following objectives:

- i) To know about the conceptual aspects of E-Banking and service quality
- ii) To explore the gaps that arise in the delivery of quality service
- iii) To conduct a survey for the purpose of measuring the quality of E-Banking services provided by the public (i.e., Government) and private sector banks through the SERVQUAL Scale
- iv) To place some recommendation for the concerned banks to close the gaps in the delivery of quality E-Banking service

4. Methodology of the Study

The data for the study is extracted from both the primary and secondary sources. The primary data have been collected on the basis of a qualitative structured SERVQUAL scale formatted questionnaire prepared in the light of the objectives of the study. Further, a pilot survey has also been conducted before the finalization of the questionnaire and expert opinions have also been incorporated in the questionnaire. The data have been collected through the direct interview method. Moreover, before going to interview phase with the respondents, they have been briefed about the contents of questionnaire. The outputs of discussions have been recorded in a notebook. In order to make a quantitative analysis the random sampling method has been followed in the present study. The samples have been randomly chosen from the various types of E-Banking services users in both public and private sector banking. Table 1 exhibits the distribution of the sample respondents.

Table 1: Distribution of Sample Respondents

Banking Sector	No. of Organizations	No. of Respondents		
		Male	Female	Total
Public (Government)	05	20	10	30
Private	20	56	24	80
Total	25	76	34	110

Source : Field Survey

rated in the questionnaire. The data have been collected through the direct interview method. Moreover, before going to interview phase with the respondents, they have been briefed about the contents of questionnaire. The outputs of discussions have been recorded in a notebook. In order to make a quantitative analysis the random sampling method has been followed in the present study. The samples have been randomly chosen from the various types of E-Banking services users in both public and private sector banking. Table 1 exhibits the distribution of the sample respondents.

5. Conceptual Aspects of E-Banking, Service Quality and Customer Satisfaction

5.1 Electronic banking is a new trend of banking through electronic means. Being the newest delivery channel of banking services the definition of e-banking varies amongst researchers partially because electronic banking refers to several types of services through which a bank's customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999). It can be defined as the deployment of banking services and products over electronic and communication networks directly to customers (Singh and Malhotra, 2004). The promise of ICTs in the banking sector has been seen in terms of its potential to increase customer base, reduce transaction costs, improve the quality and timeliness of response, enhance opportunities for advertising and branding, facilitate self-service and service customization, and improve customer communication and relationship (Garau, 2002). Indeed, it provides enormous benefits to consumers in

terms of ease and cost of transactions, either through Internet, telephone or other electronic delivery channels (Nsouli and Schaechter, 2002)

Formally, E-banking comprises various formats or technologies, including telephone (both landline and cell phones) banking, direct bill payment (Electronic Funds Transfer (EFT)), and PC or Internet banking (Power, 2000; Weitzman, 2000; Lassar, Manolis and Lassar, 2005). Chou and Chou (2000) identified five basic services associated with online banking: view account balances and transaction histories; paying bills; transferring funds between accounts; requesting credit card advances; and ordering checks.

In such form of banking customers can access their accounts, transact business, or obtain information on financial products and services through the use of an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM), kiosk, or Touch Tone telephone, etc. over a public or private network, including the Internet. It is also known as virtual banking. The first virtual bank was the ATM and the other forms of virtual banking were telephone banking and home banking (Wan, Luk and Chow, 2005).

A number of foreign and local private and some public banks in Bangladesh are offering E-Banking services in Bangladesh. The various E-banking services available now in Bangladesh are as follows:

i) Branch Banking is a form of E-Banking in which all transactions within the branch are managed through the local area network of computing (LAN). Such banking enables customers to get prompt service from the branch where they maintain their accounts. This means branch banking transactions occur in the branch in which the account was opened.

ii) **Online Banking** is the latest E-Banking development through which a bank uses a distributed processing system based wireless network of computers among its various branches, ATM booths, residences, and from the different parts of the country irrespective of their locational distances.

a) **Any Branch Banking** is a form of online banking service which enables customers to make withdrawals, remittances or know their balances at any branch of their bank, anywhere in the country. This concept is based on the philosophy that one should make transactions with the bank and not with the branch. Therefore, the banks of this era are offering any branch banking to not only sustain customer loyalty, but indeed, expand their customer base, using the service as a major selling point. Under this system Branch-to-Branch transactions are facilitated through real time online technologies. As a result, an account of the customer can be debited or credited at or from any of the branches of the bank, which are in the network.

b) ATM Banking

ATM Banking is one of the most convenient types of E-Banking service in modern day. To provide such service some computer operated machines are set up in the convenient locations to ensure day and night banking. In this case, the ATM machine is connected to the central server of the Branch Banking wirelessly. ATM Banking service has been designed to offer through a centralized multi-branch database configuration in which each ATM booth is connected to an ATM host or server machine.

c) Tele Banking or Phone Banking

Doing banking transactions via or over the telephone is called phone banking or tele-banking. It is a type of E-Banking service that utilizes the state of the art technology in telecommunication, digital voice synthesizing and recognition to provide a new way of personal banking. It is an authorized banking service that allows the customer to access, instruct, and receive information at convenient locations, using telecommunication as the prime link (Stan, 1997). In Britain, Midland Bank combined its use with branch service for its business customers while Halifax decided to extend its use to areas other than where current accounts exist (Stan, 1997). Likewise, in Bangladesh with the help of tele-banking service, customers dial a designated service number, listen to the synthesized voice of an operator, follow the steps announced by the voice, and can conveniently perform many common tasks such as balance inquiry, bill payment, stop cheque payment, account transfer, report about the loss of credit cards, funds transfer, password change, loan applications, investment purchases and redemptions, chequebook orders, debit card replacements, change of address, application for telegraphic transfers, demand drafts, cashier's orders and travel insurance; personal particulars update, etc. Some banks give customers easy access to their accounts, automatically updated information and user-friendly services 24-hours a day, 7 days a week.

d) Internet banking

Laudon and Laudon (2001) point out that the world's largest and most widely used network is the Internet. They observed that Internet is reshaping the way information systems are used in business and daily life. Internet offers an excellent environment for banks to experiment with the delivery of home banking (Bill, 1996). Internet banking is the most dynamic way of E-Banking transactions that have been conducted over the internet platform. Such banking helps a person to make transactions from any part of the world either through PC Banking, WEB Banking or WAP Banking.

PC Banking

It is such a form of Internet banking that enables customers to do their banking transactions from a PC via an Internet modem. In most WEB or PC banking ventures, the bank offers the customer a proprietary financial software program which allows him/her to perform financial transactions from the home computer. Under this method, the customer dials into the bank with his or her modem, downloads data, and runs the programs that are resident on the customer's

computer. When the customer connects with the bank server from home he/she gets easy access to the account and can obtain account balances and credit card statements, pay bills, and transfer funds between accounts.

WEB Banking

When a client does his/her banking transactions through the Internet connected personal computer (PC), it is called WEB banking. A WEB banking customer accesses his or her accounts from a browser— software that runs Internet banking programs resident on the bank's World Wide Web server, not on the user's PC.

WAP Banking/Mobile Banking

WAP banking stands for banking through Wireless Application Protocol. This means that a client can make his/her banking transaction wirelessly from any portable internet connected device such as mobile, pager, palmtop, etc. So, such mobile devices are no longer justified to their traditional usage/functions: (1) voice conversation, and (2) SMS (Short Message Services). Nowadays, the mobile phones even facilitate for a real time teleconference through 3G (Third Generations). The rapid diffusion of cell phones and increasing internet surfing and short message service (SMS) traffic offer banks a new and flexible channel to allow customers to view account balances, transfer funds between accounts, and pay accounts. The increasing application of wireless technologies, of which mobile phones are just one example, has also provided banks with the opportunity to provide their services anytime and anywhere (Birch, 1999; Rahmati, 2004). In addition, it offers far greater freedom of movement, customization and personalization. A number of businesses are introducing mobile services covering the information, communication and transaction dimensions (Kumar and Zahn, 2003).

A number of Banks are offering cell phone banking services via the Wireless Application Protocol (WAP) and the SMS based Wireless Internet Gateway (WIG) technologies (Brown et al, 2003).

In the United States, a recent survey indicated that almost half the percentages of the Internet users are banking online (El-Khoury, 2005). Similarly, Perumal and Shanmugam, (2004) estimated some 6.1 million Internet Banking users outside Asia-pacific, United States and Western Europe.

iii) **SWIFT** is a Brussels-based international body which stands for "the Society for Worldwide Interbank Financial Telecommunication" that aims to provide low-cost, competitive financial processing and communication services while maintaining high levels of quality, integrity, reliability, and security. Being a member of this forum any bank may enjoy fast and accurate communication network for financial transactions such as letter of credit, fund transfer, etc. SWIFT has been relatively successful in meeting the expectations of its members.

5.2 Service Quality

a) Service

A service is any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything (Kotler and Keller, 2006). Services are intangible, inseparable, variable and perishable.

b) Quality

Various experts have defined quality as “fitness for use”, “conformance to requirements”, “freedom from variation”, and so on (Deming, Juran, Crosby, and Taguchi, 1990). In business quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs (Cyndee Miller 1993).

c) Service Quality

In general, customers compare the perceived service with the expected service (Glenn B. Voss, A. Parasuraman, and Dhruv Grewal, October 1998). Service quality, thus, can be defined as the difference between customer expectations of services and perceived services. If the perceived service falls below the expected service, customers are disappointed. If the perceived service meets their expectations, the customers are satisfied. If performances exceed, the customers are delighted. (Kotler and Keller, 2006).

d) SERVQUAL

In order to measure the service quality of an organization a model known as SERVQUAL was developed by Parasuraman et al. in 1985 and further developed by them in 1998 (Donnelly and Dalrymple, 1996). It is a multiple-item scale for measuring consumer perceptions which was based on a concept of ‘perceived’ quality on the basis of five dimensions of service quality: tangibility (referred to as tangible in the original scale); reliability; responsiveness; assurance; and empathy (Parasuraman et al., 1988). The approach starts from the assumption that the level of service quality experienced by customers is critically determined by the gap between their expectations of the service and their perceptions of what they actually receive from a specific service provider (Donnelly and Dalrymple, 1996).

SERVQUAL, the service-quality model highlights the main requirements for delivering high quality service and identifies the following five gaps that cause unsuccessful delivery (Kotler and Keller, 2006).

Gap 1: Gap between consumer expectation and management perception -- Management does not always correctly understand or perceive what customers want.

Gap 2: Gap between management perception and service-quality specification -- Management might correctly perceive customers’ wants but not set a performance standard.

Gap 3: Gap between service-quality specifications and service delivery -- Personnel might be poorly trained or incapable of or unwilling to meet the standard; or they may be sometimes inefficient and lazy to listen to customer and serving them fast.

Gap 4: Gap between service delivery and external communications -- Consumer expectations are affected by statement made by company representatives and ads.

Gap 5: Gap between perceived service and expected service -- This gap occurs when the customer misperceives the service quality.

5.3 Customer Satisfaction

Satisfaction is the customer's evaluation of a product or service in terms of whether that product or service has met the customer's needs and expectations (Zeithaml and Bitner, 2007-2008). While in the words of Richard L. Oliver (1997), customer satisfaction is the customer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfillment.

Satisfaction often depends on service quality. Woodside et al. (1989), Cronin and Taylor (1992), and Spreng and MacKoy (1996) have given evidence that service quality leads to customer satisfaction perceptions.

6. Findings of the Study

Quality and customer service are the critical strategic issues for both public and private sector organizations (Donnelly, Wisniewski, Dalrymple and Curry, 1995). In the private sector, customer satisfaction and loyalty are secured through high quality products and services which are essential for the long-term survival and success (Donnelly et. al, 1995). Though the public sector organizations are not immune to pressure to improve customer service on a continuous basis (Donnelly et. al, 1995), some of the pressures arise internally from a genuine desire to improve quality of services provided to communities, others are imposed through corporate initiatives like customer charters and increase in consumer activism (Donnelly et. al, 1995). It is recognized that public sector organizations face more difficulties than those in the private sector in their efforts to improve customer service (Donnelly et. al, 1995). A customer's satisfaction with individual service encounters, affects the customer's dis/satisfaction with the overall service experience (Johnston, 1994).

Keeping in consideration the above research findings regarding the quality of the public and private sector customer service a comparative study has been made in the current paper. In order to measure the quality of E-Banking service, the SERVQUAL method of Gap Analysis has been used and the gaps between the customers' service expectations and service perceptions have been traced using a list of approximately 22 service quality criteria. The scale also contains expectation items. Though there are many different formats of the SERVQUAL scale are now in use, the present study focuses on 21 perception items as well as a sampling of ways the expect

tation items have been posed. The study also compares the customer perceptions of E-Banking service quality for the concerned public and private banks against a bank that is "excellent".

In the following tables (Table 2 to Table 8) the survey results of a total of 110 sample respondents' perceptions and expectations regarding the E-Banking service quality in Bangladesh have been exhibited through the five dimensions of 7 point Likert Scale SERVQUAL model: tangibility, reliability, responsiveness, assurance, and empathy ranging from strongly agree to strongly disagree (i.e. 7 to 1 scale).

Table 2: Factors affecting customers' Perceptions regarding service quality to the public and private sector banks on Reliability dimensions

Perceptions of customer in the Reliability dimensions (Factors applied to Public and Private Sector Banks)	Public 30		Private. 80	
	Mean	%	Mean	%
1. When bank promises to offer quality E-Banking service, it tries to do so.	3.64	52	6.80	97
2. Bank shows a sincere interest in solving your (customer's) problem regarding E-Banking service.	3.22	46	5.88	84
3. Bank provides its E-Banking services at the time it promises to do so.	3.36	48	5.67	81

Sources: Field Survey

[Note: Sample respondent public 30=100% and private 80=100%]

From the data (statements of customer perception) of the Table 2 about reliability dimensions of service quality judgment through 7 point Likert Scale it has been revealed that customers are satisfied to the E-Banking services of the private banks than those of the public. The highest rank came out from promises and performance of E-Banking services in private banks.

Table 3: Factors affecting customers' Perceptions regarding service quality to the public and private sector banks on Responsiveness dimensions

Perceptions of customer in the Responsiveness dimensions (Factors applied to Public and Private Sector Banks)	Public 30		Private. 80	
	Mean	%	Mean	%
1. Employees in the bank give you (customer) prompt E-Banking service.	3.5	50	6.65	95
2. Employees of the bank are always willing to help you (customer).	3.5	50	5.88	84
3. Employees of the bank are interested to respond to your (customer's) request for E-Banking service.	2.59	37	5.74	82

Sources: Field Survey

[Note: Sample respondent public 30=100% and private 80=100%]

The analysis of the Table 3 data (statements of customer perception) about responsiveness dimensions of service quality judgment through 7 point Likert Scale reveals that customers are very satisfied for E-Banking service quality of private banks especially for the prompt service.

Table 4:
Factors affecting customers' Perceptions regarding service quality to the public and private sector banks on Assurance dimensions

Perceptions of customer in the Assurance dimensions (Factors applied to Public and Private Sector Banks)	Public 30		Private. 80	
	Mean	%	Mean	%
1. The behavior of employees in the bank builds confidence in you (customer).	5.4	77	6.0	86
2. You (customer) feel safe in your (customer's) E-Banking transactions with the bank.	4.0	57	4.0	57
3. Employees of the bank are consistently courteous with you (customer).	4.8	69	5.2	74

Sources: Field Survey

[Note: Sample respondent public 30=100% and private 80=100%]

From the analysis of the **Table 4** perceptions statements on assurance dimensions, it has been revealed that customers of the private banking E-Banking services are satisfied but in the mean time public banks are also gradually improving their position to customers.

Table 5:
Factors affecting customers' Perceptions regarding service quality to the public and private sector banks on Empathy dimensions

Perceptions of customer in the Empathy dimensions (Factors applied to Public and Private Sector Banks)	Public 30		Private. 80	
	Mean	%	Mean	%
1. The bank employee assigned for providing E-Banking service gives you (customer) individual attention.	3	43	5.8	83
2. You (customer) have the heartiest interest to the E-Banking services of the bank.	2.6	37	5.4	77
3. Employees of the bank understand your (customer's) specific needs for E-Banking service.	2.4	34	6.1	87

Sources: Field Survey

[Note: Sample respondent public 30=100% and private 80=100%]

Table 5 exhibits that the customers are satisfied with the private banks because such banks are very specialized to understand the customers' basic E-Banking services needs.

Table 6:
Factors affecting customers' Perceptions regarding service quality to the public and private sector banks on Tangibles dimensions

Perceptions of customer in the Tangibles dimensions (Factors applied to Public and Private Sector Banks)	Public 30		Private. 80	
	Mean	%	Mean	%
1. The bank has modern equipment to provide E-Banking service.	4.2	60	5.95	85
2. The bank physical facilities are visually appealing to you (the E-Banking customer).	3.85	55	5.95	85
3. The bank's employee assigned for providing E-Banking service appears neat.	2.8	40	6.3	90
4. Materials associated with the E-Banking service are usually of good quality.	3.5	50	5.6	80

Sources: Field Survey

[Note: Sample respondent public 30=100% and private 80=100%]

Expectations : Factors affecting customers' expectations regarding E-Banking service quality to the public and private banks.

Table 7:
Customer Expectations under Five Service Quality Dimensions

Factors applied to Government and Private Hospitals	Dimensions	Public 30		Private. 80	
		Mean	%	Mean	%
1. Bank should perform its promises to offer quality E-Banking service.	Reliability	5.6	80	7	100
2. Bank shows a sincere interest to provide prompt E-Banking service.	Responsive	5.4	77	7	100
3. Employees of the bank assigned for providing E-Banking service should be courteous and have competence.	Assurance	5.6	80	7	100
4. Employees of the bank assigned for providing E-Banking service should give individualized attention.	Empathy	5.25	75	7	100
5. Bank should have enough physical facilities, equipment and decent & neat appearance of the personnels assigned for providing E-Banking service.	Tangibles	7	100	7	100

Sources: Field Survey

[Note: Sample respondent public 30=100% and private 80=100%]

Table 7 shows the customer expectations of service quality in which it has been revealed that customers are very optimistic to private banks than the public banks.

Table 8:
SERVQUAL scores for E-Banking services quality gaps

Five Dimensions	Public			Private		
	Expectations (Highest Score Found)	Perceptions (Highest Score Found)	Gaps Score	Expectations	Perceptions	Gaps Score
Reliability	5.60	3.64	1.96	7.0	6.80	0.20
Responsive	5.40	3.50	1.90	7.0	6.65	0.35
Assurance	5.60	5.40	0.20	7.0	6.00	1.00
Empathy	5.25	3.00	2.25	7.0	6.10	0.90
Tangibles	7.00	4.20	2.80	7.0	6.30	0.70

Sources: Field Survey

[Note: Sample respondent public 30=100% and private 80=100%]

In **Table 8**, it is revealed that as per expectations towards public banks the study found the highest gap in the Empathy and Tangibles dimensions of service quality measurement. On the other hand, the highest service quality gap found in the Assurance and Empathy dimensions of judgment of service quality to the E-Banking services of the private banks. As compared to private banks, public banks fail to minimize gaps of service quality under all dimensions.

7. Recommendations for closing the gap

From the findings of the study it has been revealed that the public banks have failed to maintain the quality of E-Banking services in all dimensions of measurement of quality as compared to the private banks. In this regard, the following recommendations may be placed to close the five gaps of service quality for the improved performance of the concerned public banks, effective quality extension and diversification for the private banks towards maximum customer satisfaction.

7.1 Closing the Gap 1 between consumer expectation and management perception

Management must always try to correctly understand or perceive what customers want. In this regard, the management of the concerned banks may do the following:

a) Market and marketing research: An adequate, well planned and timely initiative of market and marketing research shall have to be pursued by the concerned banks to improve their E-Banking service quality through the identification of the customer requirements and thereby expectations.

b) Reduction of the number of management layers: Since the lack of upward communication is created due to the lack of interaction and communication between management and customers, the concerned banks must pay their attention to reduce the number of layers among the operation level managers and corporate level administrators.

c) Ensure continued support to meet customer expectations: To know about the customer expectations and ensure continued support, the banks may follow the STP (Segmentation, Targeting and Positioning) approach of marketing so that they can develop sound relationship to make loyal customers with their target customers more efficiently and effectively their counterparts.

d) Complaint resolution: The concerned banks shall pay due attention to the customer so that their complaints can immediately be resolved. The concerned banks may in this regard develop and maintain customer database, which will preserve the decisions of previous cases and help in resolving complaints and problems in case of future need.

7.2 Closing the Gap 2 between management perception and service-quality specification

In order to correctly perceive customers' wants and set a performance standard the management of the concerned banks may do the following:

a) Redesign of services: Redesigning of services through a systematic new service development process for E-Banking by incorporating a clearly defined good quality service designs and positioning of the same.

b) Establishment of a customer-driven service standard: Establishing a customer-driven service standard through process management to set service quality goals by focusing on customer requirements for the E-Banking services.

c) Appropriating physical evidence and servicescape: Appropriating physical evidence and servicescape through the development of the tangibles in line with customer expectations so that customer and employee needs can be effectively met. In this regard, the authority of the concerned banks must have to ensure adequate maintenance and updating of the E-Banking technologies and infrastructures for greater and improved banking service.

d) Setting documented standards and procedures: Setting documented standards and procedures on various stages of E-Banking service development, delivery and quality control by specifying what, how, when and by whom the said service is to be provided.

7.3 Closing the Gap 3 between service-quality specifications and service delivery

In order to close the gap between service-quality specifications and service delivery the management of the concerned banks may do the following:

a) Improvement of the Human Resource Management (HRM) policies for effective service quality: Improving the Human Resource Management (HRM) policies through effective and rational recruitment and selection of the right employees who have service competencies in the E-Banking field, resolution of their role ambiguity and role conflict, establishing employee-technology job fit, setting appropriate evaluation and compensation systems, and empowering perceived control and teamwork. In addition, the personnels assigned for E-Banking service delivery and quality control need to be properly trained to make them capable of or willing to meet the standard so that they may become efficient and pay their attention to listen to their customers and serve them fast. Training the concerned employees on standards and procedures, technical and interactive skills for providing prompt E-Banking services may be a one step ahead decision to ensure good service quality. Such improved policy of HR may empower employees to work independently and in team, provide them the needed supportive technology and equipment and retain the best employees to grow and being motivated.

b) Customer Development: Developing customers by educating them regarding their roles and responsibilities so that impact each other positively and fulfill their roles.

c) Problem resolution with service intermediaries: Resolving problems with service intermediaries through channel conflict management over objectives and performance so that a consistent quality of E-Banking service can be ensured.

d) Matching supply and demand: Initiatives to match supply and demand shall be taken to ensure smooth peaks and valleys of demand for E-Banking services. Day and Night Banking through ATM, Phone Banking, Internet Banking, etc. may be strengthened in this context.

7.4 Closing the Gap 4 between service delivery and external communications

In many cases it is often seen that the promises of the concerned banks do not match with the performance of their E-Banking services. It is because consumer expectations are sometimes negatively affected by the statements made by the company representatives and advertisements. Therefore, to reduce such gap, the concerned banks may consider the following recommendations.

a) Integrated services marketing communications program: An integrated services marketing communications program may be launched through an interactive marketing communications plan and the establishment of a strong internal marketing program

b) Management of customer expectations: An effective management of customer expectations regarding E-Banking services can be ensured through all forms of communication and adequate education for customers

c) Restraint of Overpromising: The concerned must restrain themselves from overpromising

in their E-Banking advertisement, personal selling and through physical evidence cues. In this regard the concerned banks should promise what is possible and change advertisement messages with the redesigning and development of new services of E-Banking.

d) Adequate vertical and horizontal communications: Adequate vertical and horizontal communications may improve the quality of E-Banking services through sufficient internal communication between sales and operations, advertising and operations and effective coordination among the policies and procedures across branches or units.

7.5 Closing the Gap 5 between perceived service and expected service

The Gap 5 arises when the customer misperceives the service quality which may be as the result of the failure of the concerned banks in minimizing Gap 1 to Gap 4. Therefore, it may be recommended that the concerned banks shall concentrate to minimize Gap 1 to Gap 4 of E-Banking service. Such act of the banks may enable the customers in matching their expectation(s) with their own perception(s).

8. Conclusion

In today's service economy success of a business organization like bank depends on customer satisfaction and this can be ensured when the concerned bank can offer innovative and quality customer service. In this context, the role of different types of E-Banking services in satisfying ultimate customers is remarkable. From the above study findings it has been clear that if the Bangladeshi banks measure the E-Banking service quality on a regular basis through the GAP Analysis and follow the recommendations placed can improve their service quality performance, satisfy their customers, retain them as loyal to the provider in particular and ensure a sustainable growth of the banking industry as a whole.

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APPENDIX

1. E-Banking Service Quality Measurement through SERVQUAL Scale

i) Questionnaire on Perceptions: Measurement of the Perceptions Statements regarding E-Banking service quality in Bangladesh through the five dimensions of SERVQUAL model and a 7 point Likert Scale method.

Perceptions Statements in the Reliability Dimension	Strongly Agree			Strongly Disagree			
	7	6	5	4	3	2	1
1. When bank promises to offer quality E-Banking service, it tries to do so.							
2. Bank shows a sincere interest in solving your (customer's) problem regarding E-Banking service.							
3. Bank provides its E-Banking services at the time it promises to do so.							
Perceptions Statements in the Responsiveness Dimension	Strongly Agree			Strongly Disagree			
	7	6	5	4	3	2	1
1. Employees in the bank give you (customer) prompt E-Banking service.							
2. Employees of the bank are always willing to help you (customer).							
3. Employees of the bank are interested to respond to your (customer's) request for E-Banking service.							
Perceptions Statements in the Assurance Dimension	Strongly Agree			Strongly Disagree			
	7	6	5	4	3	2	1
1. The behavior of employees in the bank builds confidence in you (customer).							
2. You (customer) feel safe in your (customer's) E-Banking transactions with the bank.							
3. Employees of the bank are consistently courteous with you (customer).							
Perceptions Statements in the Empathy Dimension	Strongly Agree			Strongly Disagree			
	7	6	5	4	3	2	1
1. The bank employee assigned for providing E-Banking service gives you (customer) individual attention.							
2. You (customer) have the heartiest interest to the E-Banking services of the bank.							

3. Employees of the bank understand your (customer's) specific needs for E-Banking service.							
Perceptions Statements in the Tangibles Dimension	Strongly Agree				Strongly Disagree		
	7	6	5	4	3	2	1
1. The bank has modern equipment to provide E-Banking service.							
2. The bank physical facilities are visually appealing to you (the E-Banking customer).							
3. The bank's employee assigned for providing E-Banking service appears neat.							
4. Materials associated with the E-Banking service are usually of good quality.							

ii) **Questionnaire on Expectations:** Measurement of the Perceptions Statements regarding E-Banking service quality in Bangladesh through the five dimensions of SERVQUAL model and a 7 point Likert Scale method

Expectations Statements Strongly	Strongly Agree				Strongly Disagree		
	7	6	5	4	3	2	1
1. Bank should perform its promises to offer quality E-Banking service.							
2. Bank shows a sincere interest to provide prompt E-Banking service.							
3. Employees of the bank assigned for providing E-Banking service should be courteous and have competence.							
4. Employees of the bank assigned for providing E-Banking service should give individualized attention.							
5. Bank should have enough physical facilities, equipment and decent & neat appearance of the personnels assigned for providing E-Banking service.							