Internship Report
On
An Analysis of Customer Response to Electronic Banking System of Sonali Bank PLC

SUBMITTED TO:
Controller of Examinations
National University
Gazipur-1704

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Session: 2019-2020
Major: Finance & Banking
Program: MBA
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Under National University
Date of Submission: 09 November, 2023

LETTER OF TRANSMITTAL

November 09, 2023

Controller of Examinations

National University

Gazipur-1704

Subject: Submission of Internship Report.

Dear Sir,

It is my great pleasure to submit the report **An Analysis of Customer Response to Electronic Banking System of Sonali Bank PLC** as a part of my Internship Program under the Bachelor of Business Administration curriculum of National University. I have closely observed different departments operations of Sonali Bank PLC at Foreign Exchange Branch during my internship period.

I enjoyed preparing this report, which enriched my practical knowledge of the theoretical concept. I tried to reflect the practical operational aspects of the Bank, which is complementary to the theoretical lessons. I am very much glad that you have given me the opportunity to prepare this report for you and hope that this report will meet the standards of your judgment. However, I will always be ready to provide any further clarification that you may require.

Sincerely,

…………………………..

Hasan Mohammad Khan

Reg. No.: 19601000599

Session: 2019-2020

Major: Finance & Banking

Program: MBA

Daffodil Institute of IT (DIIT)

STUDENT'S DECLARATION

I hereby declare that, this internship report entitled **An Analysis of Customer Response to Electronic Banking System of Sonali Bank PLC** is submitted as the partial fulfillment of the requirements for the degree of Master of Business Administration program of National University, Gazipur-1704.

This is an original work which is submitted only to National University and no part of it has been published in anywhere.

Sincerely,

…………………………..

Hasan Mohammad Khan

Reg. No.: 19601000599

Session: 2019-2020

Major: Finance & Banking

Program: MBA

Daffodil Institute of IT (DIIT)

SUPERVISOR'S CERTIFICATE

This is to certify that the Internship Report on **An Analysis of Customer Response to Electronic Banking System of Sonali Bank PLC** is an authentic report done by **Hasan Mohammad Khan**, Registration No: 19601000599, Major in Finance & Banking as a partial fulfillment of the requirement of Master of Business Administration (MBA) degree from the National University.

The Report has been prepared under my guidance and is a record of the bona fide work carried out successfully.

I wish him every success in life.

………………………….

Md. Mokarram Hossain

Associate Professor

Department of Business Administration

Daffodil Institute of IT (DIIT)

ACKNOWLEDGEMENT

EXECUTIVE SUMMARY

Sonali Bank PLC symbolizes modern banking with innovative services in Bangladesh. It provides E-banking, ATM Support, SMS Banking Services in the country. Their newly developed web application is fully authentic, secured and robust. This technology-based services also provides customer Fund Transfer through internet, Debit/Credit Card. Facility and free SMS message of special type of withdrawal from the customers' account time to time. Within a short span of time, Sonali Bank PLC has established itself as one of the fast growing local public banks. Right now, it has a vast network of all branches serving many of the leading corporate houses and is gradually moving towards retail banking.

E-banking system of Sonali Bank PLC allows customers to perform a wide range of banking transactions electronically via the bank's web site. When first introduced, it was used mainly as an information presentation medium through which the bank marketed its products and services on its web sites. With the development of asynchronous technologies and secured electronic transaction technologies, the bank has come forward to use E-banking both as a transactional as well as an informational medium. As a result, registered E-banking users can now perform common banking transactions such as writing checks, paying bills, transferring funds, printing statements, and inquiring about account balances here. Online banking has evolved into a "one stop service and information unit" in this bank that promises great benefits to consumers. Even, all branches of Sonali Bank PLC under E-banking system are able to do banking practices using a common server (which is centralized) from where only the branches will be able to enter using a common password. Anyone including any client or any branch from any direction are able to enter in the system to do banking transactions from Sonali Bank PLC.

Though the use of information technology (IT) as a competitive weapon has become popular; but there is still a marked lack of understanding of the issues that determine the influence of information technology on a particular organization and the processes those will allow a smooth coordination of technology and corporate strategy.

ACRONYMS

AD	Authorized Dealer
BB	Bangladesh Bank
BIS	Bank for International Settlement
CBS	Core Banking Solution
CASA	Current Account, Saving Account
MIS	Management Information System
CRM	Credit Risk Management
FDR	Fixed Deposit Receipt
EXP	Export Form
FCA	Financial Chief Advisor
IRC	Import Registration Certificate
L/C	Letter of Credit
RTGS	Real Time Gross Settlement
SME	Small & Medium Enterprise
SBL	Sonali Bank PLC

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1.1 Background of the Report

Banking system occupies an important place in a nation's economy. Banking institution is indispensable in a modern society and it plays a vital role in the economic development of a country. Soon after independence of the country Sonali Bank emerged as the largest and leading Nationalized Commercial Bank by proclamation of the Banks' Nationalization Order 1972 (Presidential Order-26) liquidating the then National Bank of Pakistan, Premier Bank and Bank of Bhwalpur. As a fully state-owned institution, the bank had been discharging its nation-building responsibilities by undertaking government entrusted different socio-economic schemes as well as money market activities of its own volition, covering all spheres of the economy.

The bank has been converted to a public PLC Company with 100% ownership of the government and started functioning as Sonali Bank PLC from November 15, 2007 taking over all assets, liabilities and business of Sonali Bank. After corporatization, the management of the bank has been given required autonomy to make the bank competitive & to run its business effectively.

There are twenty-seven Sponsors involved in creating Sonali Bank PLC; the sponsors of the Bank have a long heritage of trade, commerce and industry. They are highly regarded for their entrepreneurial competence. The sponsors happen to be member of different professional groups among whom are also renowned banking professionals having vast range of banking knowledge. There are also members who are associated with other financial institution.

1.2 Objectives of the Report

1.2.1 General Objective

The general objective of the report is to analyze customer response to electronic banking system of Sonli Bank PLC.

1.2.1 Specific Objectives

The specific objectives of the study are as follows:

I. To present an over view on the customer response to E-banking System of Sonali Bank PLC.
II. To gather comprehensive knowledge on E-banking functions of Sonali Bank PLC.
III. To get an overall idea on online business of banking industry.
IV. To know how this organization plays its role in the online business.
V. To know how the bank is performing in E-banking system.
VI. To figure out the weakness in satisfaction in E-banking and construct the ways of recovery.

1.3 Methodology of the Report

1.3.1 Steps to Collect and Accumulate Data

This report has been prepared through considering the following steps:

Step 1: The study is descriptive in nature. Data used in this study have been collected basically from the primary sources like face-to-face conversations through which I have discussed my intern issue with the professionals of IT department of Sonali Bank PLC.

Step 2: I have also collected a vast amount of data from secondary sources like 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.

1.3.2 Sources of Data:

In this report, I have taken information from the following sources:

1.3.2.1 Primary Sources of Data:

1. Oral and informal interview of officers and employees in Sonali Bank.

2. Practical work exposures from the different desks of IT Department of the bank.

3. Personal observation.

1.3.2.2 Secondary Sources of Data:

1. Annual reports of Sonali Bank PLC.

2. Website of Sonali Bank PLC.

3. Printed forms and documents supplied by Sonali Bank PLC.

4. Relevant books, journals, Booklets.

1.3.3 Structure of the Report:

This report is consisting of Seven Chapters which of those are as follows:

- In the first chapter, background, objectives, scope, methodology and limitations of the report have been discussed.

- In the second chapter, of this report, I tried to give an overview of the activities conducted in Sonali Bank.

- In the third chapter, I solely focused on the topic of my report that is *"Customer Response to E-Banking System of Sonali Bank PLC"* and tried to analyze and evaluate the report regarding the issue.

- In the chapter, I tried to represent my observations and draw recommendations on the topic of my report. Lastly, I concluded the topic with a specific destination.

- In the Appended part I included Bibliography with Appendix.

1.4 Scope of the Report

Sonali Bank PLC is one of the new generation banks in Bangladesh. The scope of the study is PLC to the Foreign Exchange Corporation Branch only. The report covers the organizational structure, background, functions and the satisfaction of the bank. This report is mainly performed for the analysis of customer response to e-Banking system of Sonali Bank PLC. A brief analysis of bank's branch customer response is done to represent E-Banking condition with regard to overall response.

1.5 Limitations of the Report

Although I have obtained wholehearted co-operation from employees of Sonali Bank PLC, Foreign Exchange Corporation branch but they could not manage enough time to deal with the report.

1. The annual report is the main secondary source of the information but this information was not enough to complete the report and it need not identify clear idea about this bank.

2. The main limitation was the fact that lack of information due to confidential reason.

2.1 Background of Sonali Bank PLC

Sonali Bank PLC (SBPLC) is a state-owned leading commercial bank in Bangladesh. It is the largest bank of the country. It was established in 1972 under the Bangladesh Banks (Nationalization) Order, through the amalgamation and nationalization of the branches of National Bank of Pakistan, Bank of Bahawalpur and Premier Bank branches located in Pakistan until the 1971 Bangladesh Liberation War.

When it was established, Sonali Bank had a paid-up capital of 30 million taka. In 2001, it's authorized and paid-up capital were Taka 10 billion and Taka 3.272 billion respectively. Presently, it's authorized and paid-up capital is Takan10 billion and Taka
9 billion respectively. The bank's reserve funds were Taka 60 million in 1979 and Taka 2.050 billion on 30 June 2000.The bank has been converted to a Public PLC Company with 100% ownership of the government and started functioning as Sonali Bank PLC from November 15, 2007 taking over all assets, liabilities and business of Sonali Bank. After corporatization, the management of the bank has been given required autonomy to make the bank competitive & to run its business effectively. During 2013, $250,000 was stolen from the bank by Cyber criminals using the Swift international Payments Network. In 2016, the Bank signed a legal Memorandum of understanding with PayPal.

Sonali Bank has a total of 1230 branches. Out of them, 343 are located in urban areas, 862 in rural areas and 2 are located overseas. It also operates the Sonali Exchange Company Inc. in USA and Sonali Bank (UK) PLC, United Kingdom, to facilitate foreign exchange remittances. Sonali Bank UK remits up to 14 destinations across Bangladesh directly, these include Dhaka, Chittagong, Sylhet, Moulvibazar, Beanibazar, Balaganj, Biswanath, Jagan nathpur, Sunamganj, Gopalganj, Nabigonj, Hobigonj, and Kulaura or Tajpur. There are currently three branches in the UK, one located in Osborn Street, London, another in Small Heath; Birmingham and in Manchester.

Sonali Bank PLC is governed by a Board of Directors consisting of 11 members. It is headed by the Managing Directors & CEO, who is a well –known Banker and areputed professional. The corporate head quarter of the bank is located at Motijheel,

Dhaka, Bangladesh.

2.2 Corporate Profile of Sonali Bank PLC

Table-01: Corporate Profile of Sonali Bank PLC

Name of the Company	Sonali Bank PLC
Chairman	Mr. Ziaul Hasan Siddiqui
CEO & Managing Director	Mr. Md. Afzal Karim
Company Secretary	Mr. Tauhidul Islam
Legal Status	Public PLC Company
Genesis	Emerged as Nationalised Commercial Bank in 1972, following the Bangladesh Bank (Nationlisation) Order No. 1972 (PO No.26 of 1972)
Date of Incorporation	03 June, 2007
Date of Vendor's Agreement	15 November, 2007
Registered Office	35-42, 44 Motijheel Commercial Area, Dhaka, Bangladesh
Authorized Capital	Taka 6000.00 Crore
Paid-up Capital	Taka 4530.00 Crore
Number of Employee	18,806
Number of Branches	1230
Phone-PABX	9550426-31, 33, 34, 9552924
FAX	88-02-9561410, 9552007
SWIFT	BSONBDDH
Website	www.sonalibank.com.bd
E-mail	itd@sonalibank.com.bd

2.3 Vision of Sonali Bank PLC

Socially committed leading banking institution with global presence.

2.4 Mission of Sonali Bank PLC

Dedicated to extend a whole range of quality products that support divergent needs of people aiming at enriching their lives, creating value for the stakeholders and contributing towards socio-economic development of the country through email.

2.5 Slogan of Sonali Bank PLC

"Your trusted partner in innovative banking**".**

2.6 Objectives of the Sonali Bank PLC

Sonali Bank PLC (SBPLC) has a various types of Objectives. Important objectives of the bank are as follows:

    I.   To collect deposits
    II.   To alleviate poverty
    III.   To secure deposit
    IV.   To inspire savings
    V.   To create employment
    VI.   To create medium of exchange
    VII.   To expand trade and commerce
    VIII.   To help in industrialization
    IX.   To earn profit

Besides these objectives, there are some others too. The bank is responsible to provide all types of banking services to the door steps of people. The bank participates in various socio-economic development activities and also takes part in implementation of various polities and program made by government.

2.7 Strategic Significance of Sonali bank PLC

As a commercial bank, Sonali Bank has some core responsibilities towards customers, Management, shareholders and other business organizations. The bank is responsible for sound customer satisfaction through quality and timely services. Like every

commercial bank this bank has some common goals to be met. In the present world, security is a common talk in wealth preservation. This bank helps clients to securitize Their wealth through secure banking system. Sonali Bank helps the regional development of Bangladesh by the expansion of loan portfolio to the business, agro-sectors, industry. A unique feature of sonali bank is that it works in favor of Bangladesh bank by settling commercial transactions among commercial bank known as clearing house. It has expanded its online services maintaining competition with others commercial banks such online checking customers account, issuing visa and Master card to support online transactions, online settlement of customers account satisfaction of SBPLC in various division etc.

2.8 General Banking Activities of Sonali Bank PLC

Banking operations start with general banking activities. This department provides day-to-day services to the customers. Every day it receives deposits from the customers and meets their demand for cash by honoring cheques. It opens new accounts, remit funds, issues bank drafts and pay orders etc. Since bank is confined to provide the services every day, general banking is also known as 'Retail Banking'.

- Cash Section
- Accounts Opening Section
- Remittance Section FDR Section
- Accounts Section
- Establishment section

However, all section of general banking of SBPLC are online base where a Customer can maintain their need with SBPLC's Network.

2.9 Synopsis on Foreign Exchange Reserve of Sonali Bank PLC

The gross foreign exchange reserves to USD 15.73 billion at the end of March, 2021 against USD 13.16 billion by end of February, 2020. The gross foreign exchange reserves, without ACU liability id equivalent to import payments of 4.05 months

according to imports of USD 3,598.88 million per month based on the previous 12 months average (March-February, 2021-22)

However, SBPLC's have Wide Network for Remittance Arrangement with various Countries' Each namely:

- Import
- Export and
- Remittance

Import:

Import activity starts from opening of an L/C in favor of the beneficiary/Exporter in a bank. As a result the exporter gets the guarantee for payment of his goods.

Export:

Foreign Exchange Regulation Act, 1947 nobody can export by post and otherwise than by post any goods either directly or indirectly to any place outside Bangladesh, unless a declaration is furnished by the exporter to the collector of customs or to such other person as the Bangladesh Bank (BB) may specify in this behalf that foreign exchange representing the full export value of the goods has been or will be disposed of in a manner and within a period specified by BB. Bangladesh exports a large quantity of goods and services to foreign households. Readymade textile garments (both knitted and woven), jute, jute-made products, frozen shrimps, tea are the main goods that Bangladeshi exporters exports to foreign countries. Garments Sector is the largest sector that exports the lion share of the country's export. Bangladesh exports most of its readymade garment's products to USA and European Community (EC) countries.

Remittance:

This function is running on a very small scale SBPLC. Very insignificant amount of outward remittance is made every month. The Portion of Inward remittance is also negligible (except export business). There is not education file opened in this branch.

Remittance is of two types:

- Outward Remittance
- Inward Remittance

Outward remittance is needed for traveling purpose, Health care, education, membership fees of international organization, participate in trade fair abroad, credit card payment etc. Bank requires to provide the TM form to customer and filled them up. Customer also submits the documents necessary to justify the purchase of foreign exchange, for example, for travel purpose, the passport with visa, two-way air tickets etc. For education purpose, the offer letter, the estimation of expenses provided by the university etc. For health purpose, the opinion of the medical board of a hospital. If bank is satisfied then bank sells the FC.

For travel purpose the amount maximum bank can allow is $ 3000, per person a year and maximum $1500 in cash and the remaining amount in Travelers Cheque. But before getting visa bank only can sell $ 200. The amount is $ 1500 for SAARC countries in air travel, and $ 500 in road. If bank receive any inward remittance, bank informs the beneficiary to collect the money after providing the documents necessary to identify him. If the amount exceeds $ 2000 then the beneficiary must fill up the "form C" as rule provided by Bangladesh Bank to inform the purpose of the remittance.

Figure-01: Message on Remittance Management System of Sonali Bank PLC
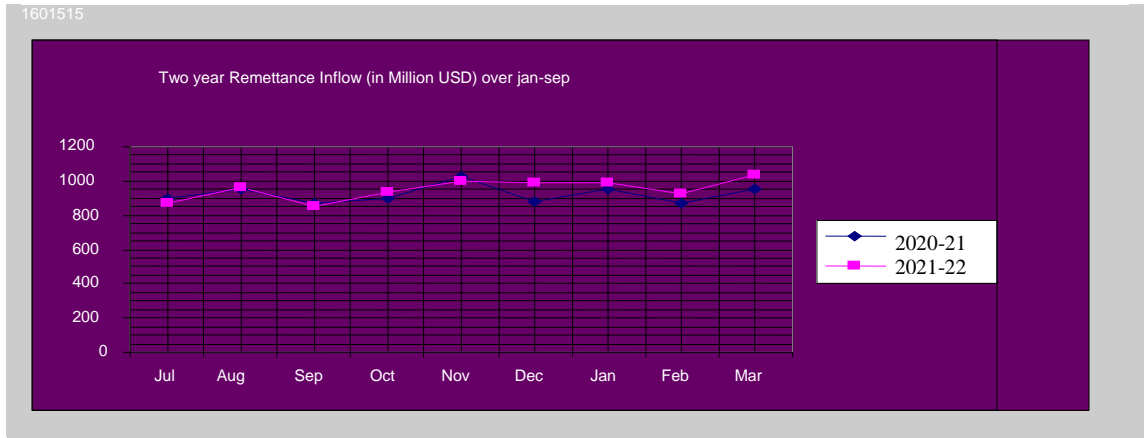
Panel (a)

Panel (b)
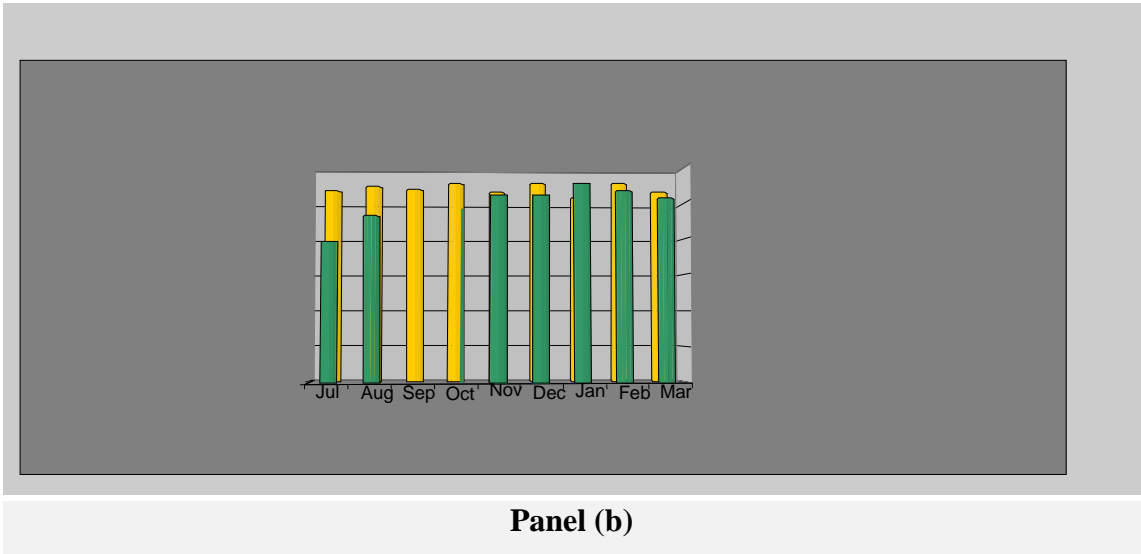
Figure-02: Remittance Trends of Sonali Bank PLC

2.10 Foreign Exchange Operations of Sonali Bank PLC

Foreign Exchange Corporation Branch of Sonali Bank PLC started its operations as 20th branch at Arambag, Dhaka. This branch is located at Arambag, Motijheel, Dhaka. 2nd floor of a multi-storey building is rented for operating the branch. General Banking section, the largest section of the bank occupies the whole ground floor. A part of the ground floor is used as an ATM booth.

SBPLC Foreign Exchange Corporation Branch has not got Authorized Dealer licence from Bangladesh Bank to perform foreign exchange business. The import and export businesses that are usually done in this branch increases the profitability of the bank.

This Branch is headed by **Mr. Shajahan Ali Sarker**. He is assisted by Md. Asutus Bos, who is also very experienced in his job. The total number of staff is 33 now. The branch has been performing very well, under **Mr. Shajanhan Ali Sarker** effective leadership. The branch has already been able to introduce itself as one of the best performers among all other branches of SBPLC.

Branch has efficient human resources that can meet up customer's needs. Interpersonal relationship is remarkable. But workload per person seems to be quite high though the picture is almost same for all the private bank employees. Some sections are overloaded with work, for example, accounts section etc.

Customer service of Foreign Exchange Corporation Branch is excellent. Prompt, cordial & enthusiastic service satisfies almost all customers. Banking hour is slightly flexible that attracts more clients doing banking transactions with the branch. Since the branch is located at Foreign Exchange Corporation and it is a new branch, the pressure of customer service is not so high. The problem is at the end of the banking hour some transactions are made. And the officers find it difficult to receive those cash in time, because they also need to be very careful about fake notes.

The satisfaction of mobilisation of deposit from the branch is a great effort, but the credit-deposit ratio is not up to the mark, that affects the branch profitability badly. The branch could get opportunity to invest more of its fund by itself then it will be a better performing branch in future.

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                    │   Branch     │
                    └──────┬───────┘
                           │
                    ┌──────┴───────┐
                    │Manager Operation│
                    └──────┬───────┘
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┌──────────────┐  ┌──────────────┐  ┌──────────────┐
│General Banking│  │ IT in charge │  │   Credit     │
│(Staff Officer)│  └──────────────┘  │   (SEO)      │
└──────┬───────┘                     └──────┬───────┘
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┌──────────────┐                    │  Executive   │
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│  Assistant   │
│  Officers    │
└──────────────┘
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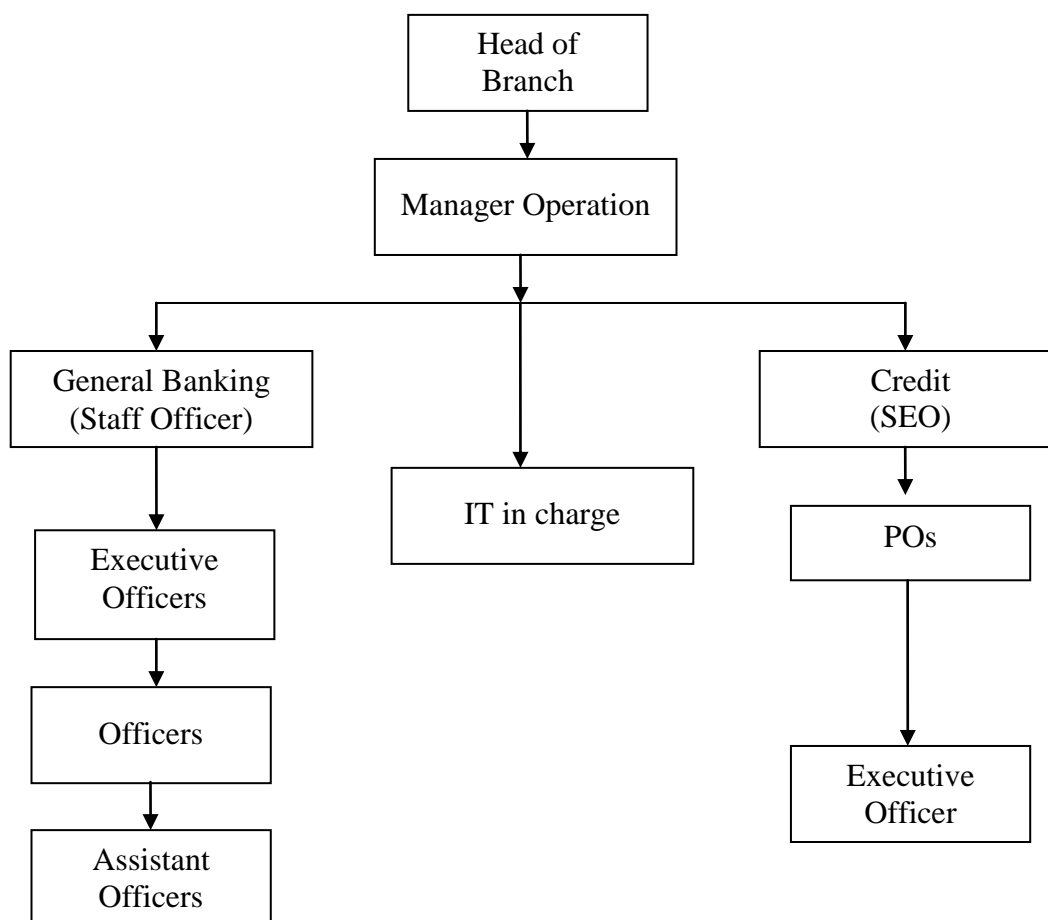
Figure-: 03 Organogram of SBPLC Foreign Exchange Corporation Branch

2.11 Online Banking Services of Sonali Bank PLC

Online banking services provided by banks are as follows:

a) Core Banking Solution (CBS)

b) Automated teller Machine (ATM)

c) Electronic Fund Transfer (EFT)

d) Real Time Gross Settlement System (RTGS)

e) National Electronic Fund Transfer (NEFT)

f) Mobile Banking (M-Banking)

g) Magnetic Ink Character Recognition (MICR)

h) Electronic Cleaning Services (ECS)

i) Plastic Cards (Credit and Debit Card)

a) **Core Banking Solution (CBS):** Core Banking is a general term used to describe services provided by a group of networked bank branches.

b) **Automated teller Machine (ATM):** ATM is a computerized machine that permits bank customers to gain access to their Accounts with Magnetically enclosed plastic card and a Code number. It enables the customer to perform several banking operations without the help of Teller such as to Withdraw Cash, Make Deposits, Pay Bills, Obtain Bank Statements and Effective Cash Transfer.

c) **Electronic Fund Transfer (EFT):** Plastic Cards have gained greater acceptance and Momentum as a Medium Financial Transaction. Credit Card provides Cash Free and anywhere and anytime shopping to the Customers but with fixed limit prescribed by Banks. Debit Card, unlike postpaid Credit Card, is a pre-paid card with some stored value.

d) **Real Time Gross Settlement System (RTGS):** It provides for an electronic based settlement of inter Bank and Customer based transactions, with intraday Collateralized liquidity support from RBI to the participants of the system.

e) **National Electronic Fund Transfer (NEFT):** NEFT is another E-banking product facilitating Transfer of Funds from any Branch of a Bank to any other Branch of any Bank in Shorter Time. Before EFT's, intercity transfer of Money for the Customer was made through Demand Drafts, Mail Transfers & Telegraphic transfers.

f) **Mobile Banking (M-Banking):** Mobile Banking is an extension of application such as Phone banking & Online Banking. It can be defined as a channel where by Customers interacts with Bank through a Mobile Device, e.g. Cell Phone.

g) **Magnetic Ink Character Recognition (MICR):** MICR is a technology used to verify the legitimacy or originality of paper documents, especially checks. Special ink, which is sensitive to magnetic fields, is used in the printing of

certain characters on the original documents. Information can be encoded in the magnetic characters.

h) **Electronic Cleaning Services (ECS):** ECS is an electronic mode of funds transfer from one bank account to another. It can be used by institutions for making payments such as distribution of dividend interest, salary and pension among others.

i) **Plastic Cards (Credit and Debit Card):** a debit card is a plastic card which provides an alternative payment method to cash. A credit card is a system of payment named after the small plastic card issued to users of the system.

3.1 IT in Banking Industry

Banking has always been a highly information intensive activity that relies heavily on information technology (IT) to acquire, process, and deliver the information to all relevant users. Not only is IT critical in the processing of information, it provides a way for the banks to differentiate their products and services. Banks find that they have to constantly innovate and update to retain their demanding and discerning customers and to provide convenient, reliable, and expedient services. Driven by the challenge to expand and capture a larger share of the banking market, some banks invest in more bricks and mortar to enlarge their geographical and market coverage. Others have considered a more revolutionary approach to deliver their banking services via a new medium: the Internet.

3.2 E-Banking Services of Sonali Bank PLC

E-banking is very different from traditional IS. That is, it uses emerging technologies, such as the Internet enables customers (users of Internet banking) to perform financial activities in virtual space. Research on customer acceptance of E-banking may, therefore, enhance the understanding of a customer's beliefs to make him/ her use Internet banking, and show how these beliefs affect E-banking customer behavior. Sonali Bank also provides internet banking services. E-banking service provides up-to-the-second account information, it helps to manage the accounts of customers from the comfort of those customers' mouse - anytime, anywhere. Introducing a simpler way to register for E-banking say goodbye to long queues and paper work.

3.2.1 Internet Banking Services of SBPLC

3.2.1.1 Activities of Internet Banking in SBPLC

- View Account Balances & Statements
- Transfer Funds between accounts
- Create Fixed Deposits Online (FD)
- Request a Demand Draft (DD)

- Pay Bills
- Order a Cheque Book
- Request Stop Payment on a Cheque

3.2.1.2 Business Process of Internet Banking in SBPLC

To have internet banking facilities customer has to open an account in Sonali Bank. Customer can open the account in any branch of Sonali Bank. Customer can open account following the traditional

Procedures of opening account but in this case, he has to mention that he wants E-banking facilities. Customer has to provide an email account also. Sonali Bank updates all the information regarding each and every transaction of the customer in their central database. When customer wants any kind of internet banking facilities he has to go to the website of the bank. After that he has to provide his **account number** and **PIN (personal identification number)**. When he enters this information through the website of the bank he can connect to the central database form where he can take the facilities he wants. When bank get the required account and PIN number then the server which has division for specific services check the information's authenticity. If the information provided by the customer is authentic then the server gives access to customer for the information required. Customer's account information is identified, and a response is created and sent back to internet banking. Internet banking converts the message into HTML and presents it.

3.2.2 SMS Banking Services of SBPLC:

3.2.2.1 Activities of SMS Banking in SBPLC

In addition to that, Sonali Bank PLC has also launched SMS banking services to provide better services to their clients using modern technology. It is now providing instant services like interest rate, account statement, exchange rates and other necessary information to the clients through SMS banking. Local vendors Beximco

Computers PLC and Software Shop PLC Wireless are providing the technical support for installing the system in the bank.

SMS Banking service is running 1209+ branches.1203 branches are now in automation network within 1209 branches at home. Total number of CBS running branch is 1209 and all CBS branches support sms banking. The bank is seriously working on connecting all branches in the Real-time Online Banking network gradually. Branches having ABB facility are also rendering SMS banking services. RTGS enabled branch no is 50.

The telecommunications industry worldwide has SBPLC to bring what is available to networked computers to mobile devices. Presently, the use of electronic banking is considerably high and as more and more users sign up for electronic- banking, the maturity as regards remote banking (i.e. banking outside the banking hall) is on the increase. With electronic banking, users can now conveniently carry out banking transactions, but this convenience cannot be achieved if the user does not have access to the internet, hence, in other words, the user cannot carry out a banking transaction while waiting for a bus, or perhaps while having lunch in a restaurant. With SMS banking, convenience can be achieved 24hrs a day. This is because a user has access to his mobile phone all day, at all times. So, to effectively achieve a truly convenient banking mode, a truly mobile mode of banking has to be explored, hence the need for SMS Banking.

The SMS banking solution targets the retail banking industry and enables customers to make account enquiries and transact bank accounts through mobile phones. Banks can automatically send transaction notifications and alerts to mobile phones, if specific events in the banking business work-flow occur. The solution provides convenient and latest front-end technology and a flexible architecture to support an SMS based delivery channel and to provide significant benefits for both the bank and the customer. Sonali Bank provides the following SMS banking services.

- **SMS Push service:** When any amount is debited or credited from client's account then within 5-10 seconds, he will get a message. The message includes the

beginning balance, the amount debited or credited and the last balance. This facility is only available for **Grameen Phone** and **City cell** subscribers.

- **SMS Pull service:** Every registered **Grameen Phone** and **City cell** subscribers can check their account balance through this service. They can get a mini statement of last five transactions of their account.

3.2.2.2 Business Process of SMS Banking in SBPLC

SMS Banking is a Mobile technology that allows you to request and receive banking information from your bank on your mobile phone via short message service (SMS). Individuals or corporate bodies can manage their bank accounts, check their account balances, perform check requests, money transfers, pay some bills, and perform other banking transactions using their mobile phones. There are two methods of SMS widely used in applications; they are the PUSH & PULL. Push SMS is sending a message from an application (i.e., SMS Server in this case) to the Mobile Phone. It is a one-way message. In other words, it's the mobile application (in this case, the SMS banking application) that initiates a message. An example could be a deposit alert, which alerts the user when a deposit is made to his/her account. Pull SMS is sending a request and obtaining a reply. This is a full duplex scenario where a user sends a request to the SMS banking application and the application replies with the information requested. An Example is when a user requests his bank account balance.

A customer willing to have this service has to have an account with Sonali Bank. He can open his account following the traditional method but he has to mention about the specific services at the time of opening the account to get sms banking facilities. The customer must be a subscriber of Grameen Phone or City Cell Telecommunication Company. Sonali Bank maintains a symmetric dedicated line with Grameen Phone and City Cell. This line is like intranet and not for public use. A customer willing to have this service will provide his account number and PIN code through sms to a specific number provided by the bank. After getting the sms Grameen Phone or City Cell will check the Code and tracking number of the customer. Then the companies

will send the requirement of the customer with the specific tracking number to Sonali Bank. Sonali Bank will then check the number whether they match with the information kept by them. If the information matches with the information kept in the database of the bank then the bank send the information to the Grameen Phone or City Cell. Then the company provides the information to the customer.

E-banking helps to do the administrative function with much ease. It helps administration to communicate both internally and externally. Such as administrative officer needs to issue a memo to finance and marketing department. In old days, he/she needs to write a memo but with the help of IT he/she can send the memo

3.2.3 ATM Banking Services of SBPLC

3.2.3.1 Activities of ATM Banking in SBPLC

At present 1203 branches of Sonali Banks are included in the Online Any Branch Banking (ABB) network. Automatic teller machines (ATMs) ensure that cash is easily accessible, whenever and wherever someone needs cash. It helps businesses facilitate cash-only transactions and you avoid the mounting fees of credit card processing or check cashing, while also generating revenue for your business via a share of the transaction fees collected by the ATM provider. The Bank carries its banking activities through all branches in the country. Sonali Bank customers have access to forty-one ATMs as a member of ETN. Under the ATM network the software enables direct linking of a client's account, without the requirement of a separate account. The Bank has already set up its own ATM machine at 15 corresponding branches and is also in the process of setting up its own ATM network at every focused point in the city with a view of providing retail banking services.

3.2.3.2 Business Process OF ATM Banking SBPLC

After opening a bank account in the bank, the customer is provided with ATM card and also his password. Customer will go to any ATM booth of the bank and punch his card and then provide the password with mentioning the required amount of money. When he provides his password, the bank checks it with their database information. If

there is balance in the customer's account the server of the bank gives the ATM machine confirmation to provide the customer the required money.

3.2.4: Mobile Banking Services of SBPLC

Mobile banking services is like SMS banking services. A customer can get necessary information about A/C, transaction etc

3.2.4.1 Business Process of Mobile Banking in SBPLC

Customers willing to have this service must fill up the specific registration form. Then he will be given an initial password. This password is changeable at any time. Then customer has to send sms by following a specific procedure required by Sonali Bank and AKTEL, including his password. Sonali Bank has established a symmetric dedicated line with AKTEL which is like intranet and of no public uses. When AKTEL get request from the customer, it send the information to Sonali Bank. Then it checks its database for required information and confirms AKTEL for the information or transfer the bill from the customer's account to AKTEL's account. After getting confirmation AKTEL give the information to the customer or recharge the required account.

Rankstel, Ektoo PLC, Link3. They are very sincere in marinating a very high speed which can provide customers information in a required way.

3.2.4.2 Accuracy of Data in case of Mobile Banking of SBPLC

If any mistakes or wrong information is identified by the customer or any employee of Sonali Bank which was happened at the time of data entry then it is to be informed to the respective manager. Customer can inform him through the Complain Center of Sonali Bank. Then the manager can edit the correct information according to the authority he has been given.

3.3 IT of Sonali Bank PLC and Its Uses as a Source of Competitive Advantage

Competing for customers is nothing new for banks and lending institutions. The competition is simply more intense as the demand for loans and financial services increases. Yet while lower rates can get a customer's attention, service often determines whether they remain a customer for the long term. When it comes to their own banking needs and schedules, consumers want convenience. They want service that' efficient and personalized. At a branch location, in the main office, from a contact center, even banking by phone and online. Add it up and a customer's banking experience requires total continuity and collaboration across a financial organization, including from a growing number of mobile workers. Add it up again, and convenience, service and efficiency put a lot of pressure on a communications system.

3.4 Information Technology Architecture of Sonali Bank PLC

Now a day banking industry fully depends on information flow. Payments, receipts all those things done in eyeshot. So to be competitive, Sonali Bank PLC also needs to provide services as fast as possible. The main concern of IT for Sonali Bank PLC to reduce processing time of the user. They concern about following Business Requirements to set up IT architecture:

- Bank must maintain a one stop databank for its entire user.
- It need maintain a hot line with all of its branches and partners both nationally and internationally.
- It need provide the information to its customer with very flexibility.
- It need keep its central database up-to-date as soon as the transaction is incurred.
- It need provide information to its customer through website, mobile devices etc.
- It need segment it's IT in two distinct parts: Maintenance and Development.
- Its service need to be cost competitive.

3.5 SBPLC's Information Technology Infrastructure of Sonali Bank PLC

In order to support the above business requirement, the bank needs a very strong infrastructure, which must provide speed and accuracy. The infrastructure also must provide cost competency so that the profitability is not hampered while maintaining the reliability of the customers. Infrastructure consists mainly four types of components. These are as follows:

Figure-04: SBPLC's Information Technology Infrastructure

3.5.1 Hardware

Sonali Bank PLC uses mostly PCs. These PCs have communication facilities and access with the server situated in Scotia branch. They have currently 560 personal computers for their operations. Because of confidentiality and some other protocols, they cannot obtain exactly how many computers are used for the above business requirements. These personal computers are branded (e.g., IBM, DELL, & COMPAQ). These computers are connected to each other. They use a server in the databank. It maintains all the channels of different branches, operators, international organization (SWIFT), and ATM booths. They maintain wiring in fiber optical cable. This communication hardware is supplied by the network service provider.

3.5.2 Software

Sonali Bank use integrated software for all their banking activities. Its name is **Stellar.** This software is developed by **ERP**, a joint venture of Ranks It, Sonali Bank and Dubai based software developing firm Emirates. Sonali Bank in sourcing the package because they want to develop the IT as their business process needs. They achieve flexibility by maintaining an in-house IT department. Continuously they develop and add features to their software and satisfy business needs accurately.

Key Benefits:

- Saves valuable time of user
- Provides secure transactions
- Provides valuable information
- Makes Banking easy
- SMS passes information quickly
- Provides alert

WAP Banking Provides:

- Single point solution for both customers and banks
- Reduced cycle time in transactions
- Any-where any-time access
- Integrated Web based Infrastructure for banking
- Low rollout costs
- An extensible and distributed system with fast information routing
- Enforce business rules
- Provides online information on the status of user requests, thus saving time and effort on follow-up - Easy to track different activities status.
- Personalization and Membership
- Digital Signature based Authentication and Security for users and application
- Architecture for designed to be scalable and support high-volume multiple transactions Windows 2000 platform.

3.5.3 Network

To provide speed and reliability to its customer Sonali Bank PLC has to maintain a well-established network with all of its branches and copartners. The bank is connected with every branch all over in Bangladesh. The network description is given below:

- High Speed DDN and Radio Link connectivity between Branches and the Head Office
- Local Area Network (LAN) – providing data network connectivity at the Head Office and the Branches
- Metropolitan Area Network (MAN) - connecting the DHK branches with HO, CTG branches and SYL branches**.**
- Wide Area Network (WAN) – enabling the data network circle between Head Office and the Branches
- Dial-up lines, routers, hubs, switches and firewalls according to the requirements of the network systems. An especially dedicated line with GRAMEEN PHONE, AKTEL and CITY CELL.
- Solid foundation over data and network security implementation

3.5.4   Data

Sonali Bank PLC maintains a centralized database. This database is maintained by the IT department of the bank. Data is updated by the employee engaged with the related transactions. Every employee has specific authority about editing the database. Any type of change in database beyond that limit is punishable. The branches are connected with the head office and up-to-dates the database following ever transaction. The database comprised with the PCs created a Client-Server network. The server is at the head office and the branch PCs as well as other PCs at the head office are clients. At the same time all branches have their unique code through which they can access to the main server and share data from there.
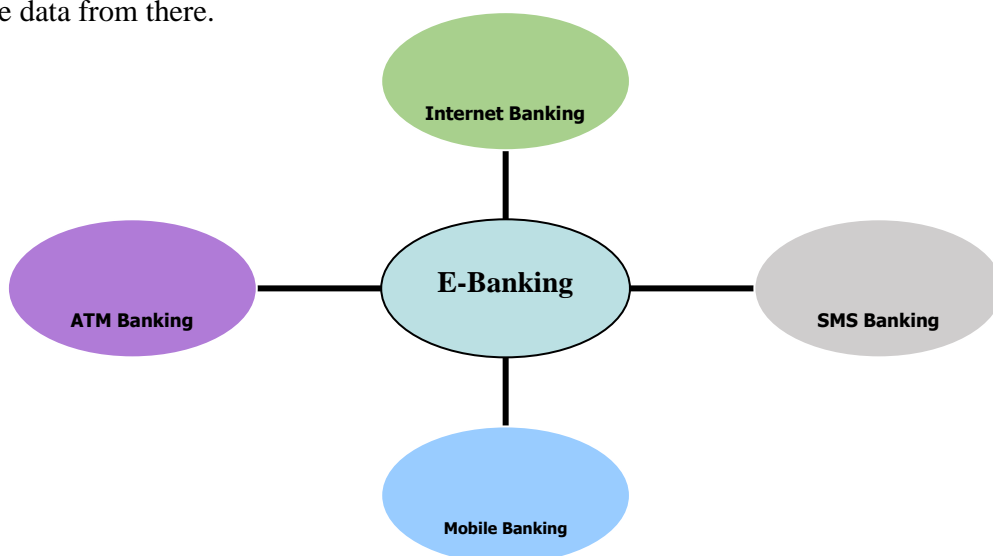

Figure-05: E-banking Segments of Sonali Bank PLC

4.1 SWOT Analysis of Sonali Bank PLC

SWOT analysis enables an organization to have a comprehensive insight about its current position in the industry compared to the competitors. It provides the organization a scope to strategically improve its position in the market. Here is the SWOT analysis of Sonali Bank PLC (SBPLC) discussed as follows:

4.1.1. Strengths of SBPLC

➢ A large number of customers continue their transactions with SBPLC'S E-Banking
➢ Wide range of E-Banking network
➢ Excellent customer service compared to the competitors in case of E-Banking
➢ Excellent working environment for the customers of E-banking
➢ E-banking customer service is very prompt
➢ Use of debit and credit card is being increased
➢ Arranges different training program for their employee on E-banking
➢ Earns high profit because it has a large number of online customers.
➢ Attract deposits through providing E-banking facilities to its customer
➢ Withdrawal of deposits of account holders from any branch at any time from anywhere through using E-Banking
➢ Relationship among IT employees is very friendly and cooperative
➢ IT management and the employees work as a team
➢ IT Employees are hardworking, they regularly have to work beyond their working hour
➢ Sound knowledge of employees on E-Banking

4.1.2 Weakness of SBPLC

➢ High service charge on E-Banking (Online) facilities
➢ Insufficient numbers of employees in the IT Section
➢ Due to lack of manpower, PLC availability of foreign remittance business(which is transaction depend on the basis of online)

- Lack of availability of E-Banking facilities in every branch
- Slow-down of online servers
- Lack of using online network for clearing cheque (some branches send hard copy of cheque or image of cheque to clearing house which is a not so good process and as a result the bank is unable to immediately inform about that cheque to customers)
- Do not provide separate prospectus on E-banking to customers.
- The authority of debiting a customer account of one branch to another branch in case of E-banking, it certainly increases the risk of misappropriation of account holder's fund by any branch staff

4.1.3 Opportunities of SBPLC

- In rural areas many businesses are not facilitated by the financial institutes though having great potentiality so that the bank may grab the opportunity to expand their business and exploiting with their flexible loan proposals through using E-Banking facilities
- May get the technical aids and assistances thorough the good relationship with various multinational organizations like South-Asia Enterprise Development Facility (SEDF), USAID, World Bank and so on
- May open KIOSKs (small booths) with E-banking facilities around its branches in market areas for marketing and convenient processing of SME loan Borrowers

4.1.4 Threats of SBPLC

- High completion in the market
- Rapid increasing rate of customer awareness on the E-banking activities of banking system

5.1 Findings

- The bank need establish more ATM booths.
- ATM booths need have enough money Bangla interface need be introduced as soon as possible.
- Branch office need not be connected with local broadband service. In this case, they suggest that the branches need use BTCL internet service.
- SMS banking needs more development.
- Revival of this service is the demand of time. Head office need think about to develop smartphone mobile application for providing better services'-banking services need try to mobilize more deposit schemes through better marketing and innovative measures'-banking system need be more flexible.
- All the statement relating to transaction need provide in the CBS software banking need develop their communication among branches-banking service need be according to the customer expectation.
- Complexities arise in banking services like continuous slow-down of server system of the bank need be resolved very quickly so that the customers may get the highest satisfaction level.

5.2 Competitive Advantages of Sonali Bank PLC to Others Banks:

SBPLC's Philosophy is– "**Efficiency is our strength**" which make clear reflects on E-banking system of Sonali Bank PLC. Still now, it seems as superior to other banks on this ground. The employees have sound knowledge on E-banking here, because of the bank arranges training programs for employees on E-banking System of the bank most of time. So, it is the best online bank in the country besides some modest problems exists in bank.

Nevertheless the specific competitive advantage of the bank compared to other banks are as follows-

- The bank's employees have sound knowledge on E-banking than other banks.
- It has wide network than other bank.

- Online charge is total free in metropolitan area for online transaction.
- There are no service charge on debit card for first year.
- There are large number of customer than other bank.

5.3 Recommendations

In addition to that, through analyzing Sonali Bank PLC's IT sector, I have identified some issues as recommendations which are very important for E-banking system of the bank. These are:

- Should Improved accessibility, reliability, user-friendliness and security in the IT systems and services made available to the customers
- Should Adequate and appropriate facilities with pertinent standards and guidelines which are being regularly updated to meet challenging and changing needs
- Should Acceleration of IT literacy and sophistication among the users
- Should Enhance more employees for It Section
- Should A need to identify the administrative procedures that can be improved using IT and to target administrative and faculty heads and their administrative support personnel to adopt new IT-based processes
- Should Top-down involvement and support is essential to bring about effective gains in the use of IT.
- Reduce Online charge

Sonali Bank PLC need fulfill the above criteria to provide customer the best service which will add value to their company while at the same time will make them able to survive in the competitive field.

5.4 Conclusion

Effective communication sets the foundation for individual and organizational success. Communication in today's business place has become more complex, with the introduction of technology presenting both opportunities and challenges. Robust organizations demand effective communicators that can effectively manage business and organizational changes, concerns or events using technological as well as traditional means.

From the practical implementation of customer dealing procedure during the whole period of my practical orientation in Sonali Bank PLC, I have reached to a concrete conclusion in a very confident way. I believe that my realization will be in harmony with most of the banking thinkers. It is quite evident that to build up an effective and efficient communication system to the highest desire level computerized transaction is a must.

In this study I found that Sonali Bank PLC follows the conservative approach in case of E-banking. As it is now used by all of the private commercial banks (PCB), so that the bank is required to be competitive among all banks through providing standard E-banking services in a least cost way to customers to gain the ultimate competition in the industry. For this reason, they have developed their own integrated banking software to save huge amount of money as they strongly belief competitive advantage in E-banking exist in cost side.

In last words, it can be state that, Sonali Bank is a moderately advance IT based bank. But the important thing is that their IT strategy completely matches their corporate strategy. As a new bank it is still improving its IT sector. It has initiated Enterprise Resource Program (ERP) in the bank that is an integrated database and workstation. Initiation of ERP boosts its customer satisfaction level at the highest point.

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- http://www.sonalibank.com.bd
- https://www.sonalibank.com.bd

Appendix:

- Check if the website is "secure" by checking the Universal Resource Locators (URLs) which should begin with *"https"* and a closed padlock icon on the status bar in the browser is displayed. To confirm authenticity of the site, double-click on the lock icon to display a security certificate information of the site.
- Always enter the URL of the website directly into the web browser. Avoid being re-directed to the website, or hyperlink to it from a website that may not be as secure.
- If possible, use software that encrypts or scrambles the information when sending sensitive information or performing e-banking transactions online.

e) Protect personal computer from hackers, viruses and malicious programs.

- Install a personal firewall and a reputable anti-virus program to protect personal computer from virus attacks or malicious programs.
- Ensure that the anti-virus program is updated and runs at all times.
- Always keep the operating system and the web browser updated with the latest security patches, in order to protect against weaknesses or vulnerabilities.
- Always check with an updated anti-virus program when downloading a program or opening an attachment to ensure that it does not contain any virus.
- Install updated scanner softwares to detect and eliminate malicious programs capable of capturing personal or financial information online.
- Never download any file or software from sites or sources, which are not familiar or hyperlinks sent by strangers. Opening such files could expose the system to a computer virus that could hijack personal information, including password or PIN.

f) Do not leave computer unattended when logged-in.

- Log-off from the internet banking site when computer is unattended, even if it is for a short while.
- Always remember to log-off when e-banking transactions have been completed.
- Clear the *memory cache* and *transaction history* after logging out from the website to remove account information. This would avoid incidents of the stored information being retrieved by unwanted parties.

g) Check the site's privacy policy and disclosures.

- Read and understand website disclosures specifically on refund, shipping, account debit/credit policies and other bank terms and conditions.
- Before providing any personal financial information to a website, determine how the information will be used or shared with others.
- Check the site's statements about the security provided for the information divulged.
- Some websites' disclosures are easier to find than others — look at the bottom of the home page, on order forms or in the "About" or "FAQs" section of a site. If the customer is not comfortable with the policy, consider doing business elsewhere.

h) Other internet security measures:

- Do not send any personal information particularly password or PIN via ordinary e-mail.
- Do no open other browser windows while banking online.
- Avoid using shared or public personal computers in conducting e-banking transactions.
- Disable the "file and printer sharing" feature on the operating system if conducting banking transactions online.
- Contact the banking institution to discuss security concerns and remedies to any online e-banking account issues.

2. Other Electronic Products

a) Automated Teller Machine (ATM) and debit cards

- Use ATMs that are familiar or that are in well-lit locations where one feels comfortable. If the machine is poorly lit or is in a hidden area, use another ATM.
- Have card ready before approaching the ATM. Avoid having to go through the wallet or purse to find the card.
- Do not use ATMs that appear to have been tampered with or otherwise altered. Report such condition to the bank.
- Memorize ATM personal identification number (PIN) and never disclose it with anyone. Do not keep those numbers or passwords in the wallet or purse. Never write them on the cards themselves. And

avoid using easily available personal information like a birthday, nickname, mother's maiden name or consecutive numbers.

- Be mindful of "shoulder surfers" when using ATMs. Stand close to the ATM and shield the keypad with hand when keying in the PIN and transaction amount.
- If the ATM is not working correctly, cancel the transaction and use a different ATM. If possible, report the problem to the bank.
- Carefully secure card and cash in the wallet, handbag, or pocket before leaving the ATM.
- Do not leave the receipt behind. Compare ATM receipts to monthly statement. It is the best way to guard against fraud and it makes record-keeping easier.
- Do not let other people use your card. If card is lost or stolen, report the incident immediately to the bank.

b) Credit cards

- Never disclose credit card information to anyone. The fraudulent use of credit cards is not limited to the loss or theft of actual credit cards. A capable criminal only needs to know the credit card number to fraudulently make numerous charges against the account.
- Endorse or sign all credit cards as soon as they are received from the bank.
- Like ATM card PINs, secure credit card PINs. Do not keep those numbers or passwords in the wallet or purse and never write them on the cards themselves.
- Photocopy both the front and back of all credit cards and keep the copies in a safe and secure location. This will facilitate in the immediate cancellation of the card if lost or stolen.
- Carry only the minimum number of credit cards actually needed and never leave them unattended.
- Never allow credit card to use as reference (credit card number) or as an identification card.
- Never give your credit card account number over the telephone unless dealing with a reputable company or institution.
- When using credit cards, keep a constant eye on the card and the one handling it. Be aware of the "swipe and theft" scam using card skimmers. A skimmer is a machine that records the information from the magnetic stripe on a credit card to be downloaded onto a personal computer later. The card can be swiped on a skimmer by a dishonest person and that data can then be used to make duplicate copies of the credit card.
- Do not leave documents like bills, bank and credit card statements in an unsecure place since these documents have direct access to credit card and/or deposit account information. Consider shredding sensitive

documents rather than simply throwing them away. (Some people will go through the garbage to find this information).

- Notify the bank in advance of a change in address.
- Open billing statements promptly and reconcile card amounts each month.
- Do not let other people use your card. If card is lost or stolen, report the incident immediately to the bank.
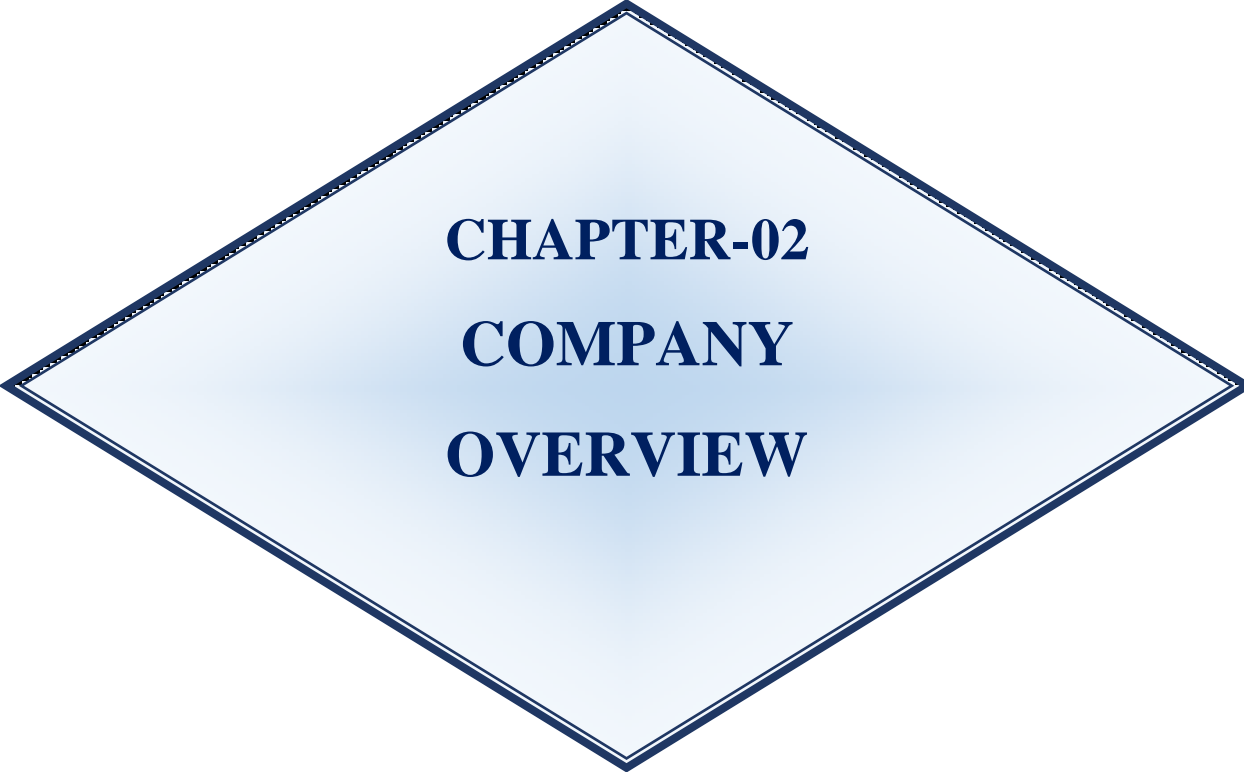
b) Mobile Banking

- Do not disclose your Mobile Banking Pin (MPIN) to anyone.
- Regularly change the MPIN.
- Do not let other people use your mobile phone enrolled in a mobile banking service. If the phone is lost or stolen, report the incident immediately to the bank.
- Be vigilant. Refrain from doing mobile banking transactions in a place where you observe the presence of "shoulder surfers".
- Keep a copy of the transaction reference number provided by the Bank whenever you perform a mobile banking transaction as an evidence that the specific transaction was actually executed.

Since customers may find it difficult to take in lengthy and complex advice, banks should devise effective methods and channels for communicating with them on security precautions. Banks may make use of multiple channels (e.g. banks websites, alert messages on customers mobile phone, messages printed on customer statements, promotional leaflets, circumstances when bank's frontline staff communicate with their customers) to enforce these precautionary measures.

CHAPTER-01

INTRODUCTION

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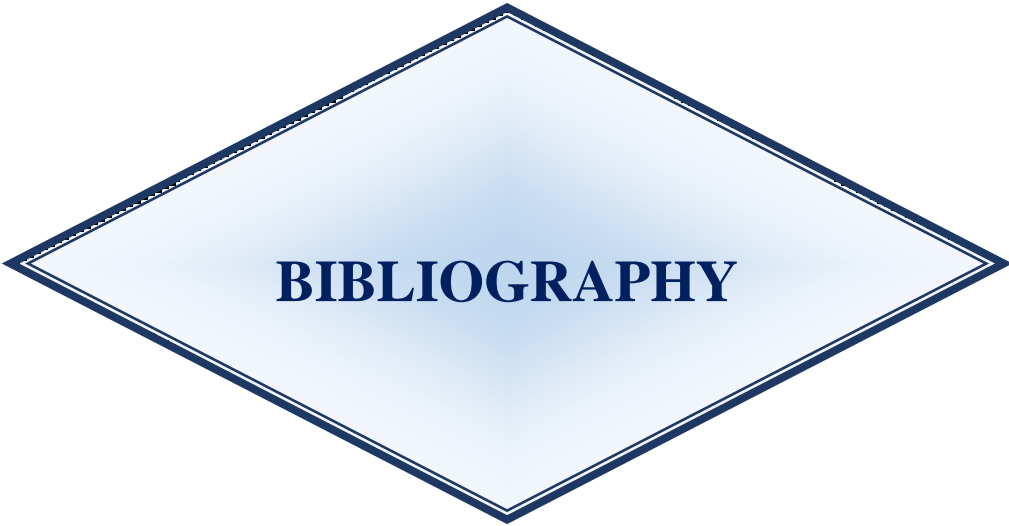
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