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BCA



Feasibility Study on



eBanking

August 10, 2006



M Sayeed Alam

Project supervisor

Dept. of Business Administration

Dear Sir:

I am pleased to submit the "**Feasibility Study on E-Banking**" that you have assigned to submit on August 10, 2006. This report incorporates the several aspects that should be considered to determine the feasibility of the project.

This report focuses on the several findings of different aspects that came out from the experience of the personnel who are in this business. It also covers the necessary annexure up to August 10, 2006.

I will be highly delighted to inform you for further enquiry.

Sincerely Yours,

Tuhinur Alam

Md. Tuhinur Alam

ID#2002-3-10-007

ACKNOWLEDGEMENT



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Computer Division, South East Bank Limited

- Mr. Ferdous Alam
System Engineer. Tech Valley.

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Executive Summary

This project is taken to establish E Banking facilities. The proposed Easy-Bank project will be operated under direct supervision of our IT Division. But as it is a non-traditional project, the head of e-banking wing will directly report to the Managing Director of the bank time to time.

Now-a-days different Banks and Non-Banking Financial Institutions are offering different types of products and services. In addition to traditional banking today's banks are offering modernized financial products like Credit Card, Automated Teller machine (ATM), Phone Banking, internet banking Consumer Banking etc. Though modern banks have adopted the advantage of e-communication, a true E-Banking package is still un-offered in our country. In this report we have conducted a complete feasibility study on E-Banking service in the context of our country.

One thing I like to mention that, here I consider E-Banking is a new product, not a new Business establishment. Let me consider "**The ABC Bank Ltd**" is a well-established local private bank in our country and they want to offer a complete E-Banking Package named "Easy-Bank" to their customers in Dhaka city. Keeping this in view this study is conducted.

The proposed service is a total new concept in our country. Compared to growing nature of Banking sector and as well as the electronic communication system, this proposed E-Banking service is very much suitable and a desire of today's lifestyle. This study, after examining all related aspects, will reveal how much this E-banking is feasible in our country. My proposed service will include only the basics of E-Banking. If it is found feasible, the service can be modified and customized to meet the demand of every segment of the society.

The probable risk the project may face is the security. We know cyber world is a very risky place. There is hundreds of Computer Genius trying to have an unauthorized access to your system. Another risk the new project may face is from the customer side. In our society, mentally we are not that ready to adopt the concept of electronic money. Still we prefer hard cash to make our day-to-day transactions.

This project will be delivering services to the society also as it will generate a lot of employment opportunity and also will earn a lot of foreign currency. This will help to contribute to the GDP of Bangladesh.

The only problem that came out after talking to the concerned people in this sector came out as the absence of the proper Government exposure. If it is found then this project will definitely going to be a successful one.

Chapter 1

Introduction





Chapter 1

Introduction



1.1 Origin & Background Information

This report is as a part of our course requirement. Our respected & honorable course instructor **M sayeed Alam** assigned me orally to do a report for the course Project Management. The report of my topic is “**Feasibility Study on E-Banking**”.

The problem was originated in the classroom when our respected faculty gave the opportunity of brainstorming to come up with several project ideas. Out of these several projects available students have chosen several topics for their feasibility study. Since I am a Finance student, I wanted to do a feasibility study on such a topic which is really needed in our country and relate to my area of interest. After discussing several topics with our respected course teacher I finally came up with a feasibility study on E-banking.

In last few years our financial system has its highest growth. Now-a-days different Banks and Non-Banking Financial Institutions are offering different types of products and services. In addition to traditional banking today’s banks are



offering modernized financial products like Credit Card, Automated Teller machine (ATM), Phone Banking, Consumer Banking etc. Though modern banks have adopted the advantage of e-communication, a true E-Banking package is still un-offered in our country. In this report I have conducted a complete feasibility study on E-Banking service in the context of our country.

One thing I like to mention that, here I consider E-Banking is a new product, not a new Business establishment. Let me consider "**The ABC Bank Ltd**" is a well-established local private bank in our country and they want to offer a complete E-Banking Package named "Easy-Bank" to their customers in Dhaka city. Keeping this in view this study is conducted.

1.2 Objectives

The paper is being conducted as a requirement for the course "**Project Management**", aimed at depicting a realistic picture of establishing an E-Banking service in Bangladesh. This Term Paper has helped me to understand the basic Project Management Principles, concepts, Problems and develop skill in the systematic analysis of the Feasibility aspects of business decisions and to acquaint me with some relevant analytical tools and techniques. Therefore the report is not limited to only academic purpose. It will help me to gain certain practical knowledge too.



The primary objective behind preparing this report is to fulfill the course requirement of F605: Project Management under the supervision of **M Sayeed Alam**. And preparing this report was essential to finish our course successfully. As this term paper will definitely clear my concepts about the theories and practical applications of **'Project Management'**.

I can broadly classify the secondary objectives as follows:

- To examine the feasibility of "Easy-Bank".
- To examine the true face of e-commerce in Bangladesh.
- To review the present scenario of Banks and financial institutions in our country.
- To understand the practical scenario of the IT Sector and to know the relation to banking in these scenario.
- To examine whether the local banks are capable of launching E-Banking service.

1.3 Methodology

1.3.1 Type of Study

The research is inductive-deductive in nature. Both exploratory and conclusive research will be performed. In the exploratory research part, ideas are explored regarding the product. Hypothesis will be tested and required variables are qualified in conclusive research part.





1.3.2 Data Collection & Exploration

The study will be conducted mainly on secondary information available and with expert views. Since the topic I have chosen is a bit technical, I will talk to some technical persons including IT Professionals, Bank Executives and Bank's Customer Service. Since it's an un-conventional topic I conduct open discussion and ideas will be exchange freely.

As people of our country are not that much aware of E-Banking, for some special issue and information I may need to consult people abroad. In such cases web-based query system and electronic mails will be used mainly.

1.4 Scope

The proposed service is a total new concept in our country. Compared to growing nature of Banking sector and as well as the electronic communication system, this proposed E-Banking service is very much suitable and a desire of today's lifestyle. This study, after examining all related aspects, will reveal how much this E-banking is feasible in our country. My proposed service will include only the basics of E-Banking. If it is found feasible, the service can be modified and customized to meet the demand of every segment of the society.



1.5 Limitation

The report is prepared based on the discussion with a small number of people due to the financial constraints and comparatively limited time. I am a student, not very experienced in using different survey tools, so there is a chance that I may lack enough knowledge how to go through research in the field. So another limitation of this report is the analytical tools we used in this report.

Besides that the topic is a very technical one. As I don't have that much technical knowledge about computer technology, sometimes it became difficult to understand a technical point. Moreover since this service is not available in our country, some bankers I talked with have little idea about it.

Chapter 2

Management Aspect





Chapter 2

Management Aspect

2.1 Introduction

A Feasibility Study is a short assessment of a proposed information system to determine whether the system can effectively meet the specified business requirements of the organization, and whether a business case exists for developing such a system.

A Feasibility Study is recommended as a preliminary to a Full Study (Requirements Analysis, Requirements Specification and Logical System Specification) for all projects except those of low risk.

The current and required environments are studied and documented only in sufficient detail to enable a Problem Definition Statement to be developed and agreed with the project board, and for Business System Options and Technical System Options to be identified.

Report which presents the findings of the Feasibility Study, including possible approaches to achieving the stated business objectives and an assessment of the impact of each approach so that the most appropriate way ahead can be fully investigated.

2.2 The Project

The name of the proposed Commercial Product of E- Banking. The feasibility study has been made covering management, technical,



marketing and financial aspects. Social benefit is the most important criteria for the product. The launching program will require an investment of TK 120 million. The initial investment will be made by four entrepreneurs of the company. The financial viability of the company has been tested based on some acceptable and standard parameters, which indicate that the company is commercially viable and financially rewarding.

2.3 Management aspect

Management's effectiveness is very much crucial to operate any business. Its responsibility even becomes complicated depending on the conditions inherent in any given situation and planning. The size and type of business and project planning inevitably affect these conditions. Therefore, management must be competent to effectively carry on its responsibilities under certain planning premises that are very complex, and should be careful about the changing nature and size of project or project for which the planning is made.

2.4 Legal Form of Business

The sponsors will form a Private Limited Company to be registered with the Registrar of Joint Stock Companies. Though the company will not take



any initial bank loan but it will take short-term bank loans from Standard Chartered Bangladesh Limited.

Banker

As stated earlier, the directors themselves will invest the initial capital of Smart Carrier Ltd. In addition to this, the company will have a short-term credit arrangement with Standard Chartered Bangladesh Limited.

Qualifications

Characteristics of Successful Entrepreneurs

Studies show that the personalities and individual characteristics of the entrepreneurs who start new businesses may be the most important factors of success. An individual's **management** skills have become so important that venture capitalists have begun to revise the way they look at potential new venture deals. Rather than betting on the "horse" (i.e., the business idea and the business plan), they are now much more likely to bet on the "jockey" and look for someone who has a history of successful past entrepreneurial efforts. These investors have come to realize that a good business plan does not necessarily make a good business, but a good entrepreneur *can*, whether the business plan is optimal or not. One's **management** team-or the one he/she will assemble-is also extremely important. Obviously, no one will display all of





the qualities, but this worksheet can still help one's assess his/her potential for success as an entrepreneur.

Characteristics of Successful Entrepreneurs-Checklist

Check off the degree to which each characteristic on the list describes you and your **management** team.

V = Very much like me (us), S = somewhat like me (us), N = Not like me (us) at all.

Attributes	Description	V	S	N
Come from a small business or agricultural background.	Entrepreneurs who have been involved in small family businesses have a better chance at success. They are generally able to recognize the characteristics and sacrifices required by small business people, and know what they are getting into from the start.			
Are decisive decision makers.	Entrepreneurs tend to make decisions early and instinctively and are often forced to rely on their judgments and make decisions without complete information. If you agonize over decisions, this is not you.			



Enjoy taking charge.	Successful entrepreneurs enjoy taking charge and following through to the end. Entrepreneurs are good at finishing projects, getting closure as well as grabbing them from the start.			
Want to be master of their financial destiny.	Entrepreneurs typically have less desire to get rich as to "do their own thing" and prove they are right. In fact, entrepreneurs usually make less money than they would work for someone else. Their real income is psychic income, the satisfaction that comes from doing what they know is right.			
Are organized independent and self-confident.	Entrepreneurs usually have few people to rely on. They must be able to perform all the different parts of their business alone.			
Are hard workers.	People who start small businesses usually work longer, harder and more stressful hours than people who work for someone else, largely because entrepreneurs have no one to fall back on.			



<p>Can take criticism and rejection</p>	<p>An entrepreneur must be able to take criticism and rejection and bounce back with a positive aspect. If you turn off at the first sign of trouble, you are probably not the kind of person who will be successful in a small business.</p>			
<p>Are determined and persistent.</p>	<p>Successful entrepreneurs typically go where angels fear to tread. They must be able to successfully avoid nagging doubts and "keep on keep in' on."</p>			
<p>Can find people to shore-up weakness. Are good judges of talent and character.</p>	<p>Typically, an entrepreneur's major problems are people. It is necessary to assemble a group of people who make up for the talents you lack.</p>			
<p>Can see how all the parts fit together.</p>	<p>As the owner of a small business, you have to wear many hats: finance, marketing, accounting, bookkeeping, human relations and more. It is necessary to see how these different pieces fit together to form the entirety of the business.</p>			



<p>Have specialized business ability from experience or education.</p>	<p>Individuals who enter a business with which they are familiar, either by education or experience, have a higher success probability.</p>			
------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------	--	--	--

Look at your responses to the questions on characteristics. If you circled "very much like me (us)" for the majority, you probably have the skills to succeed in small business. If you circled "not like me at all" for the majority of these qualities, you may lack the characteristics needed for success in a small business. Your characteristics and those of your team are only one part of the **feasibility** analysis of a small business. Your next step is to determine whether or not a market exists for your business idea.

Source: Michael D. Reilly, Ph.D. and Norman L. Millikin, Ph.D. College of Business, Montana State University-Bozeman.



2.5 Managerial capability of the promoters

According to checklist results we have four best possible entrepreneurs of the proposed project. Here they are,

The managing director, **Md. Rakib Shams** is an **MBA (IBA) with Finance major** from University of Dhaka. He started his career in a Multinational Bank in 1996 and has been having experience in different activities of Bank's operations. He has also developed good contacts with many customers during his career in the Bank.

MD. Saiful Ahsan Khan, the proposed Deputy Managing Director, is an M.COM (Finance) from Dhaka University. He has more than eight years of experience in organizational management & presently he is serving as an accountant in USCCB, a Canadian aided NGO.

Mr. Mohammad Shahriar Kabez, proposed Deputy Managing Director (marketing), is an MBA from EWU (Dhaka). He was a former marketing manager of a very well known IT firm

Mr. Khademul Basher, the proposed Deputy Managing Director (Administration) is a MBA of Khulna University. He was a former manager of Padma Textile Mills Ltd.





Name	Status	Shareholding
Md. Rakib Shams.	Managing Director	40%
MD. Saiful Ahsan Khan.	Deputy Managing Director (Finance)	20%
Mohammmad Shahriar Kabez.	Deputy Managing Director (Marketing)	20%
MD.Khademul Basher	Deputy Managing Director (Administration)	20%

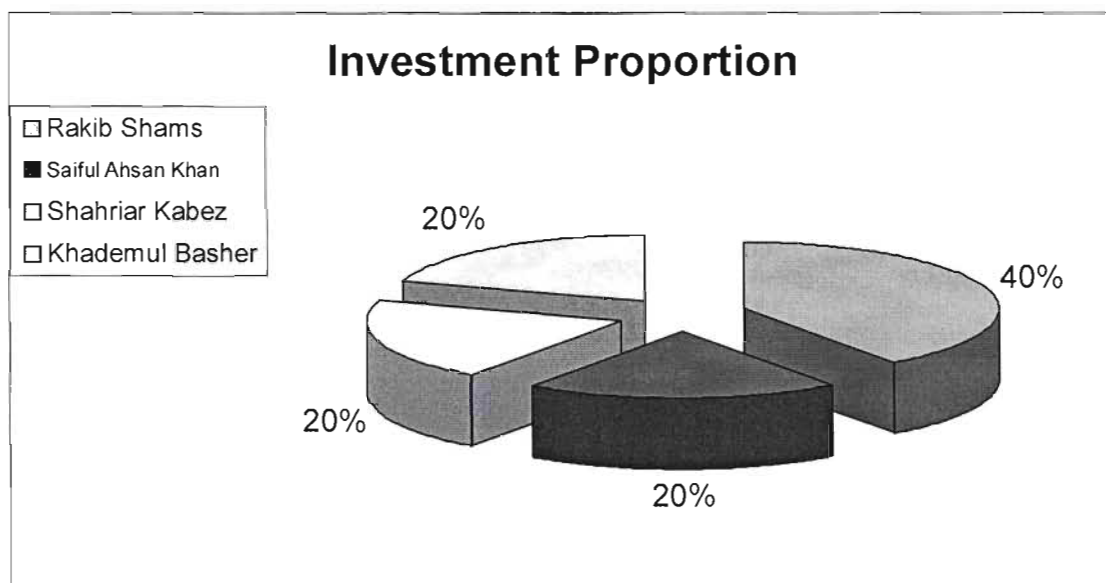


Figure 2.1: Investment Proportion

2.6 Employees of the organization

We will employ around 55 employees for its operation in different posts like, Manager, accountants, sales, security, storage, volunteers, cleaner’s



etc. Moreover, the owners will employ their own salesman. On the other hand, this will create additional employment indirectly through carrying of goods, trading of products etc.

Organization Structure:

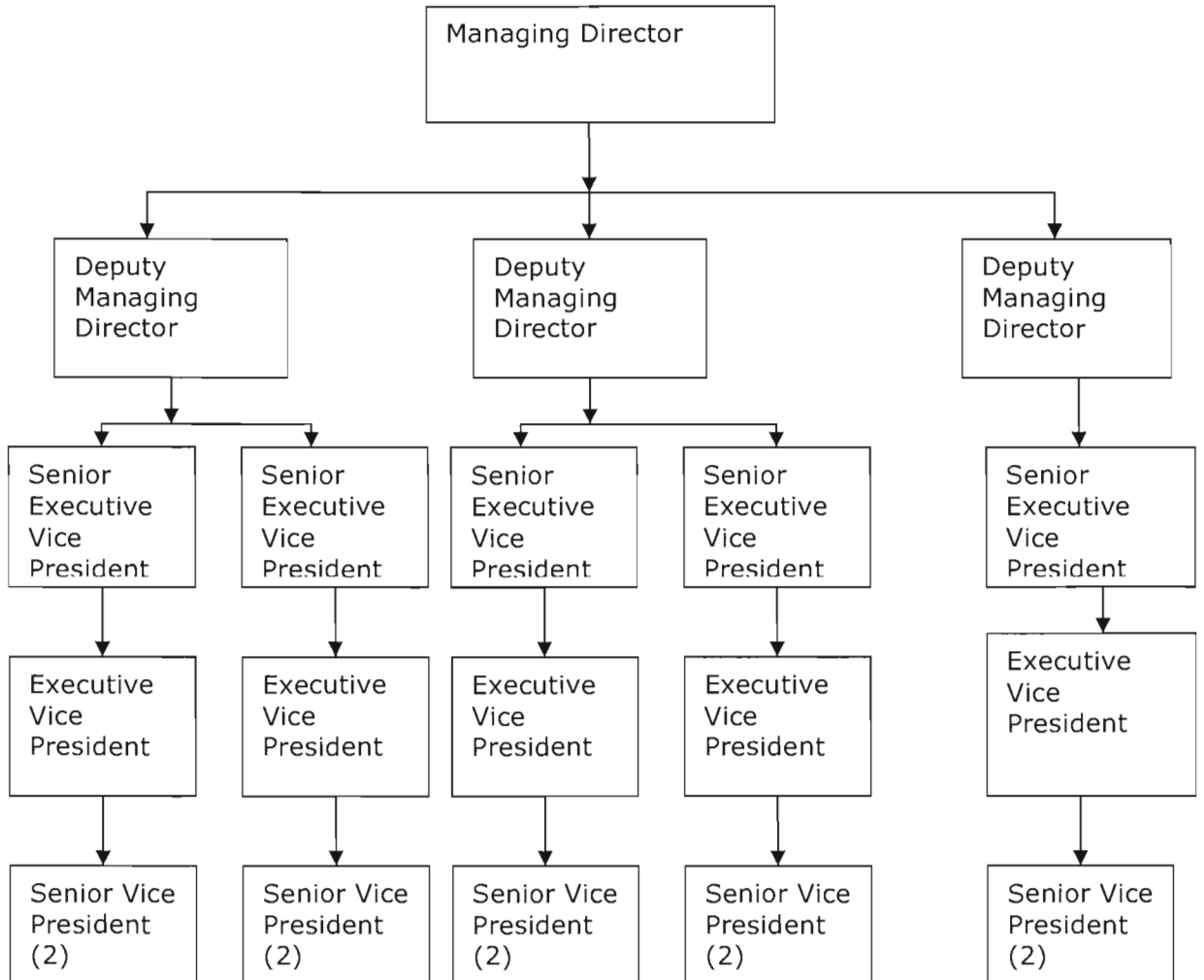
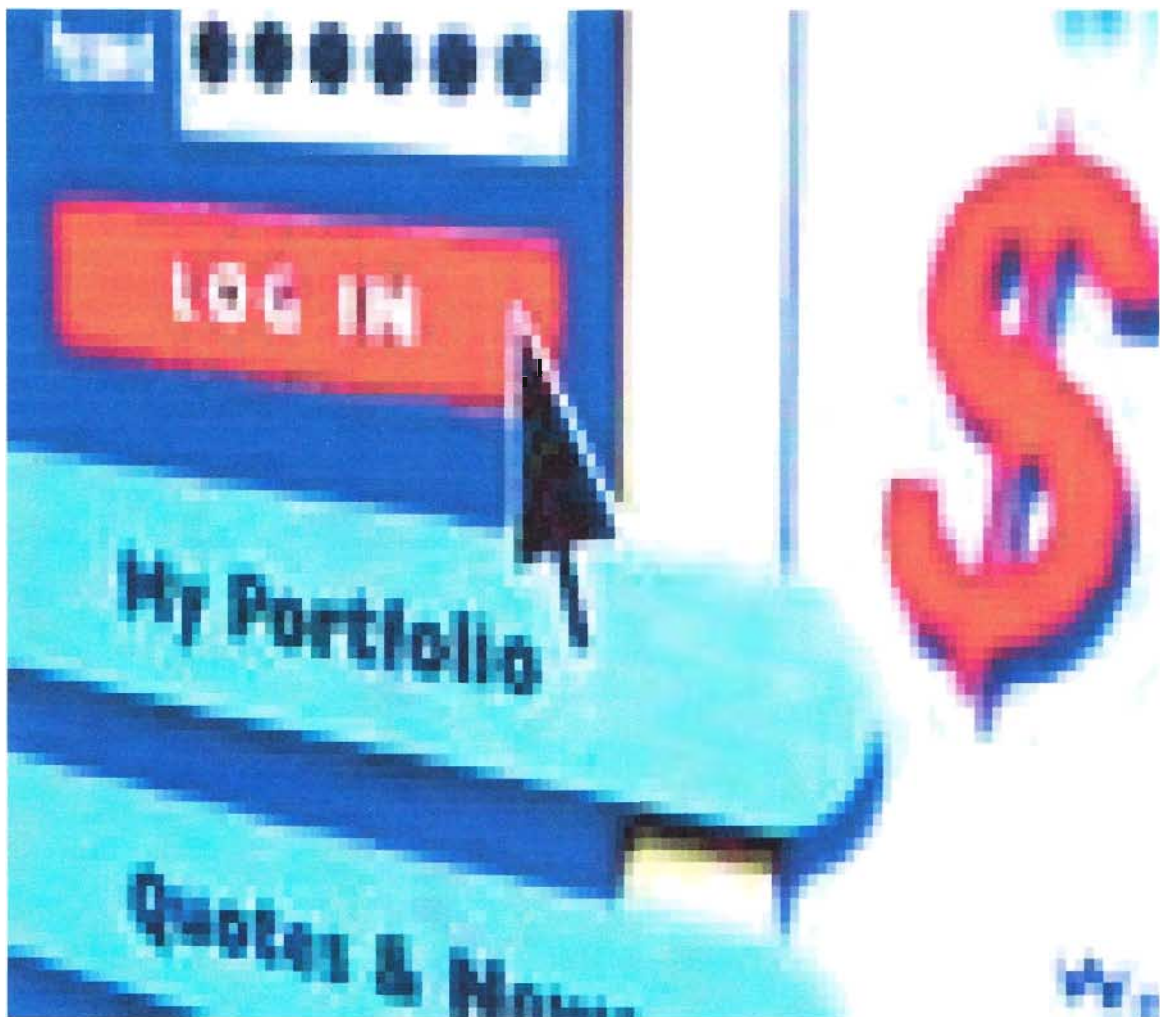


Figure 2.2 Organogram of E- Banking

Chapter 3

Technical Aspects





Chapter 3

Technical Aspects

3.1 Introduction

The ABC Bank is a Private Limited Company established under Company Act 1913 (Amendment in 1994) and Bank Company Act 1994. The proposed E-banking service is an unconventional banking service introduced for the very first time in Bangladesh. This is not only a non-traditional banking product, it also involve the Information Technology with banking.

E- Banking is highly dependent on Internet and wireless communication. The infrastructure of telecommunication system in Bangladesh is not at all suitable for E-Banking. Hence our proposed E-Banking service "Easy-Bank" will depend on BTTB as minimum as possible. "Easy-Bank" will be established on its own wireless communication system using its own V-SAT. Different technical aspect of "Easy-Bank" is described in detailed in this chapter.

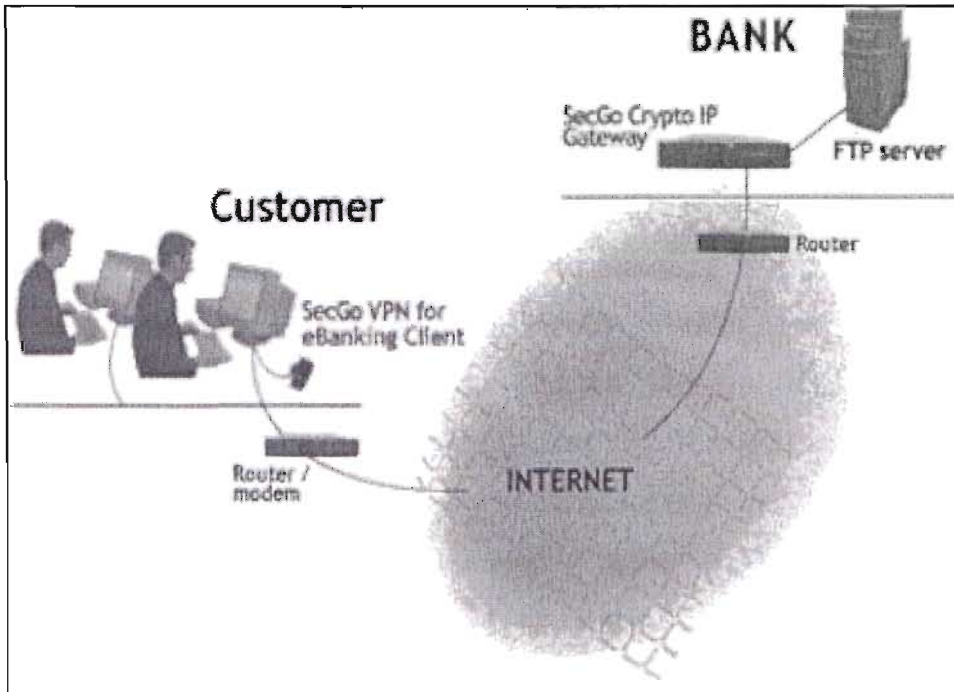


FIG 3.1: Basic Structure of "Easy-Bank" Technology

3.2 Description of "Easy-Bank"

The proposed E-banking package will be a complete e-banking solution for individual customers as well as corporate clients. This package will include:

- Any Branch banking
- Automated Teller Machine (ATM)
- Credit / Debit Card Facility
- Web Based Banking service.



3.2.1 Any Branch Banking

This is not totally a new concept in Bangladesh. Some foreign banks as well as some local banks are providing this service. Any branch banking means the client having an account in one branch can operate his or her account from any branch of the same bank. These days some banks are not opening branch-specific accounts. Thus client's accounts are not in any specific branch, hence the customer can make transaction from any branch. Mainly foreign banks in Bangladesh are providing this type of service. In case of local banks, the account remain in one specific branch in a traditional manner, but the other branches can access the account when the client wants to operate his or her account from other branch of the same branch.

Since our bank has a traditional infrastructure, our proposed service "Easy-bank" will provide the second type of service. That is the clients will have branch specific account but will be able to operate from any branch in Dhaka city. The operations a customer can perform from other branches mainly include:

- Case deposit
- Case Withdrawal.

3.2.2 Automated Teller Machine

Three foreign banks individually and 9 local banks jointly providing ATM service in Dhaka and Chittagong. ATM's mainly provide cash Withdrawal, some specific inquiry and instruction and cash deposit in



some cases. Most of the ATM's are directly linked with clients account. In case of cash withdrawal, client's account in banks server is debited at the client takes the money from the machine. But in case of cash deposit it takes about 24 hours to credit clients account. Our proposed ATM service under "Easy-Bank" has all the features that a traditional ATM machine has.

3.2.3 Credit/ Debit Card

Up to now one foreign bank, two local banks and one non-banking financial institute are providing Credit/Debit Card facility to their clients. Features of Credit Card service are almost unique all over the world. Instead of cash purchase the client will charge the card in the shop and will enjoy a credit facility of 45 days for the purchase. Within 45 days the client will pay the bank and the bank will pay that shop keeping bank margin.

Initially our "Easy-Bank" will be attached with "MasterCard", the largest Credit Card Company in the world. Gradually we will make agreement with VISA and American Express Card.

3.2.4 Web-based Banking

This will be a unique feature of "Easy-Bank". Currently, no banks in Bangladesh provide this service. Since this is a total new concept for us in this section we will discuss this service in details. In web Based service, the customer will be able to reach a certain web page via Internet from anywhere in the world where he or she will be asked for



authorization. After assuring authorization the client will be able to perform certain transaction including fund transfer, utility bill payment and inquiries.

The proposed prototype is focused on the front office system. It also simulates the host of the bank system by building a three-tier architecture including a front office system, database system and some processes in the back office system that supporting the front office and is divided into six main parts:

- Banking information,
- System sign-in,
- Banking transactions,
- Customer information management,
- System administrator, and
- Customer helps services.

The first part includes banking information, help for general customers, and application for Easy-Bank online member.

The second part covers not only the verification of a customer's authority, but also the identification whether the customer signing in is either Easy-Bank customer or Easy-Bank system administrator. Easy-Bank customers can access both third and forth part of the system.

In the third part, a customer can do several banking transactions involving account summary, statement, bill payment and funds transfer.



While in the fourth part, a customer can manage his or her information such as changing personal information, editing personal account, and changing user name and password.

In the Easy-Bank system, administrator can access the fifth part to simulate the back-office system.

The final part, customer help service, is divided into two parts –

- Help for general customer, And
- Help for Internet banking members.

Both types of help perform similar function, except that the latter provides member information for the relevant members only.

3.3 Features of Easy-Bank

The advantages of the Easy-Bank are summarized as follows:

1. Customer who opens at least one savings account or current account with the bank can apply for Internet Banking service online by filling out only one account number. Right after given approval, customer is allowed to increase or decrease number of his or her account and third party account all of which are used in Internet Banking service without asking for permission to the bank.

This is because the system is designed to link with all account information and personal information of customers. As such, the



system can instantly check number of customers' accounts during online time. Furthermore, if the customer opens another account after applying for Internet Banking service, information of this new account will appear in the "account management" screen of that customer, and customer can bring this new account to be used in Internet Banking.

On the other hand, customer can withdraw any account from Internet Banking, and then all information in that account, will no longer exist. This "account management" feature, therefore, provides customer with high flexibility in managing his or her account used in Internet Banking.

2. Customers can conduct bill payment and funds transfer by specifying "today transaction" and/or "future transaction". This service allows customers to be well prepared for their bill payment and fund transfer. For example, if customers know that they will be busy in any given date in the future, they are, by this service, assured that their bill payment and funds transfer will be operated.

3. Transaction checking is another key feature that enables customers to check both history and pending transactions occurred in either payee account or payer account or both up to 12 months. For pending transactions, customers can cancel them prior to the due date.

4. In fund transfer, customers can set period of recurring fund transfer up to 12 periods, thereby saving their time and expenses in traveling to the bank.



5. Every fund transfer transaction provides memo for customers to take note. When a transaction is viewed, the memo will appear behind it. For bill payment, customers do not have to write memo, because it will be automatically managed by the system.

6. In this prototype, customers are permitted to deal with their own security information at any time. That is, they can change user name and password themselves. They can also change their address and personal information themselves.

7. Customer help center offers four service channels including frequently asked questions (FAQs), message sending, online chat, and call center. The key feature lies in the online chat that provides real time conversation between customers and bank staff through the Internet. When online chat is in use, the bank will instantly know whom the bank is talking to and his or her personal Information. This enables the bank specialist to respond to customers' questions more effectively, and to offer products and services more suited with customers' interest.

3.4 Technical Requirements

As we mention in previously, "Easy-Bank" mainly provide

- Any Branch banking
- Automated Teller Machine (ATM)
- Credit / Debit Card Facility
- Web Based Banking service.





Though these services will be in operation in different locations, the central control will be in the Head Office Building of our bank. From the central control the whole operation will be monitored. To provide above mentioned services we will need specialized premises for office and outlets, Software and Hardware as well as technical personnel to operate them.

3.4.1 The Software

The main system that will relate these activities and maintain the information flow smooth in exclusive software that will operate in server-client basis. Talk to the ATM Machine through wireless communication devices. Connect to the PC's in branch automatically and transfer necessary information.

Have a module that will maintain the web page associated with "Easy-Bank". Easily accessible by Credit/Debit Card scanning machine from remote locations.

For our E-Banking service we will use a well-known software "PC Bank" which it developed by LEADES Corporation. LEADRS Corporation has an Office in Dhaka also to give technical support to their clients in Bangladesh. In addition to this main software we will need some supporting software. LEADES Corporation has agreed to supply that software also at a discounted price. The additional software we will need is;



1. For ATM Operation: Interactive software that will be installed in the ATMs in every ATM outlets. This software will scan the card, ask for authorization number, send it to the main server for verification, if the number is ok this software will give options about what service he wants and will send the information to the server in main office. If the client wants to withdrawal money, this software will be able to provide that also. Security is the most important feature of this software.

The security measures should be such that no person can operate it without a valid ATM Card. Moreover it will ascertain that a valid ATM Card holder can operate his account only, not other peoples account.

Quick and accurate flow of information is next important feature of this software. Any transaction taken place in any remote outlet must be communicated to the main server within fraction of seconds. If communication cannot be established with the server no payment should be made from the machine. This ATM Operation software of LEADS comes with a CC camera, so that every transaction is recorded for future use, if needed.

2. For Any-Branch-Banking Operation: This operation will be conducted by the mother application software "PC Bank". It will be installed in the computers in Branches as clients and in main control office as server. Hence it will work as Server-Client basis. Each and every transaction performed in branches will be relayed to the server through out own network. We have mentioned earlier, we will not depend on BTTB as their weak nature of networking.

Any-Branch-Banking will give freedom from branch specific accounts. A client having account in Dhanmondi Branch can operate his account for Motijheel Branch. Hence any transaction must be communicated to the main server as soon as possible. If for any reason the communication failed, the software will not perform the transaction and will give message about it. Here also security is very important so that no unauthorized person can access the software.

3. For Credit/Debit Card Operation: Till now in our country Credit/Debit card operation is done by third parties. MasterCard and VISA are the most popular card services in the whole world as well as in our country. They have their own satellite and wide network all over the world. Our service will only provide MasterCard or VISA card with access to our clients account, so that they can debit the account when the client buys some product using the card. Here also security and accurate and quick flow of information is very important. PC Bank can provide information to distant location like UK or US in fraction of seconds.

4. For Web-Based Banking Service: This application needs an interactive interface that can be linked to our web page in one end and with our central database in the main office on other end. This is a very simple and easy making application. But security of this should be at its maximum level. As we all know web is a very risky place and there are lots of smart people to hack our server. So, highest level of protection should be taken against those smart hackers. Otherwise they can mess the whole system within few minutes. It is a matter of comfort for us that LEADS Corporation has won the crown for Internet Security for last three years. So with their supervision our system will

be in good shape. For software the Feasibility Study Committee recommend "PC Bank" as the most appropriate solution for our "Easy-Bank" Project.

3.4.2 Hardware Requirements

Since we are providing the service in a small geographic area, we don't need to go for Satellite Channels. We can Lease or Buy V-Sat and use for our network. The heavy machinery will be in the main office. A server with LINUX Operating System will be installed in the main office. A list of required hardware is given below;

Table 3.1 Hardware Requirement in Main office

SI No	Name & Description	No. of Units
1.	LINUX Based A-28i Server	2 Unit
2.	Intel Pentium 4 Personal Computer	10 Unit
3.	16 Port hub	2 pc
4.	Switch	5 pc
5.	Memory box	3 Unit
6.	1/3 'Cable	10 Roll
7.	1' Cable	3 Roll
8.	100 Tower	1 pc
9.	Wireless Model	5 pc
10.	Router	10 pc
11.	Communication Disk	2 pc



The "PC Bank" will be installed in the server in Server-Mode. 10 individual PC's will also be installed around the server for monitoring and supervision purpose. The server will be connected in the network with Modem and Router. The modem will be a wireless modem which will be connected to the Tower and Dish Antenna at the roof of our office. These antennas will work as data transmitter and receiver.

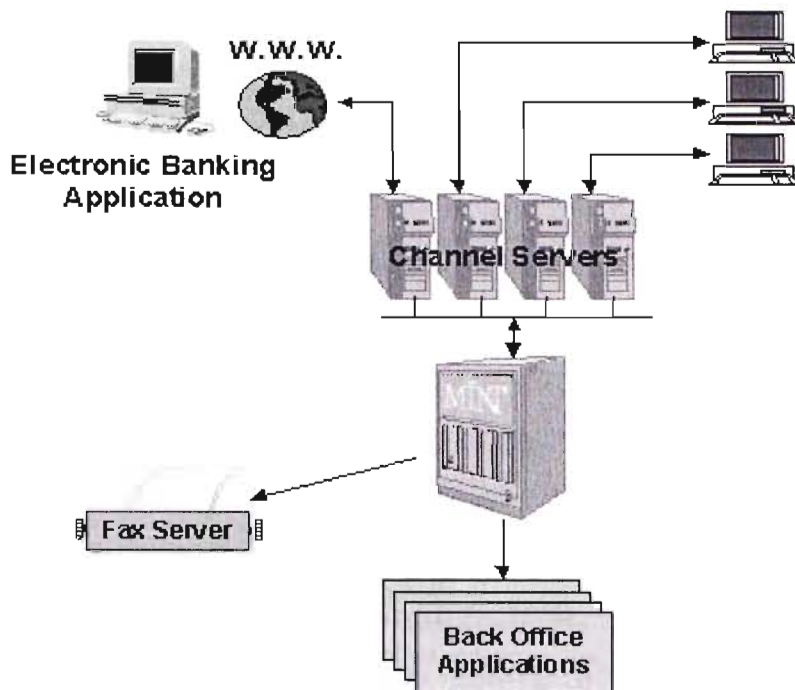


FIG 3.2: Server-Client Network

Hardware in ATM Outlets: Automated Teller Machines will be supplied by XEROX, a world known company for Hardware manufacturing. Each Machine will come with a 14" color monitor, Steel Plated 20 keys for operation, a CC Camera, Modem and Antenna to connect to the network and a well-secured cash box to put the money. They will also have a built-in alarm system that will automatically

inform the Police station for any undue access. We will buy 10 ATM's for our first phase. Price and other expenses will be discussed in the "Financial Aspect" section.

For each ATM Outlet we will need;



Table 3.2 Hardware requirement in ATM Booths

SI No	Name & Description	No. of Units
1.	XEROX ATM Machine. Including 14" Color Monitor Steel plated 20 key pad CC Camera Password Protected Cash Box Modem and Router Cable and Antenna	1 Unit
2.	Backup Power Source (IPS)	1 Pc
3.	A Telephone line connected to Customer Service	1 Pc
4.	A Pentium 4 Computer in the Back Room	1 pc

Hardware in Branches: Branches will mainly need few personal computers and a pair of router and modem for each branch. Router and modem will ensure un-interrupted connection with central office. The lists of hardware our branches will need are;

Table 3.3 Hardware requirements in branches

SI No	Name & Description	No. of Units
1.	Intel Pentium 4 Computer	2 Pc
2.	Modem	2 Pc
3.	Router	2 Pc
4.	Cable	2 Rolls
5.	Switch	1 Pc
6.	Wireless Modem	1 pc
7.	Antenna	1 pc

Web-based Banking

“Web based Banking” does not need any separate hardware. All we will need is a web page linked with our main server in main Office. But the web page must be secured enough so that no un-authorized person can access.

3.5 Land and Location

3.5.1 The Main office

The main office for E-Banking activities will be in the 10th floor of our head office. The address is:

Easy-Bank

The ABC Bank Limited

36/36 Mothijheel C/A,

10th Floor

Mothijheel. Dhaka 1000

The particulars of the proposed office space:

Total Area: 3000 SFT

Rent: Tk40/Sft

Length: 60 ft

Width: 50 ft

Entrance: Two Lifts and One Staircase

Height: 10 ft.

Current Condition: Used as Store. Need a lot of cleaning and some restructuring

The Layout of Main office:

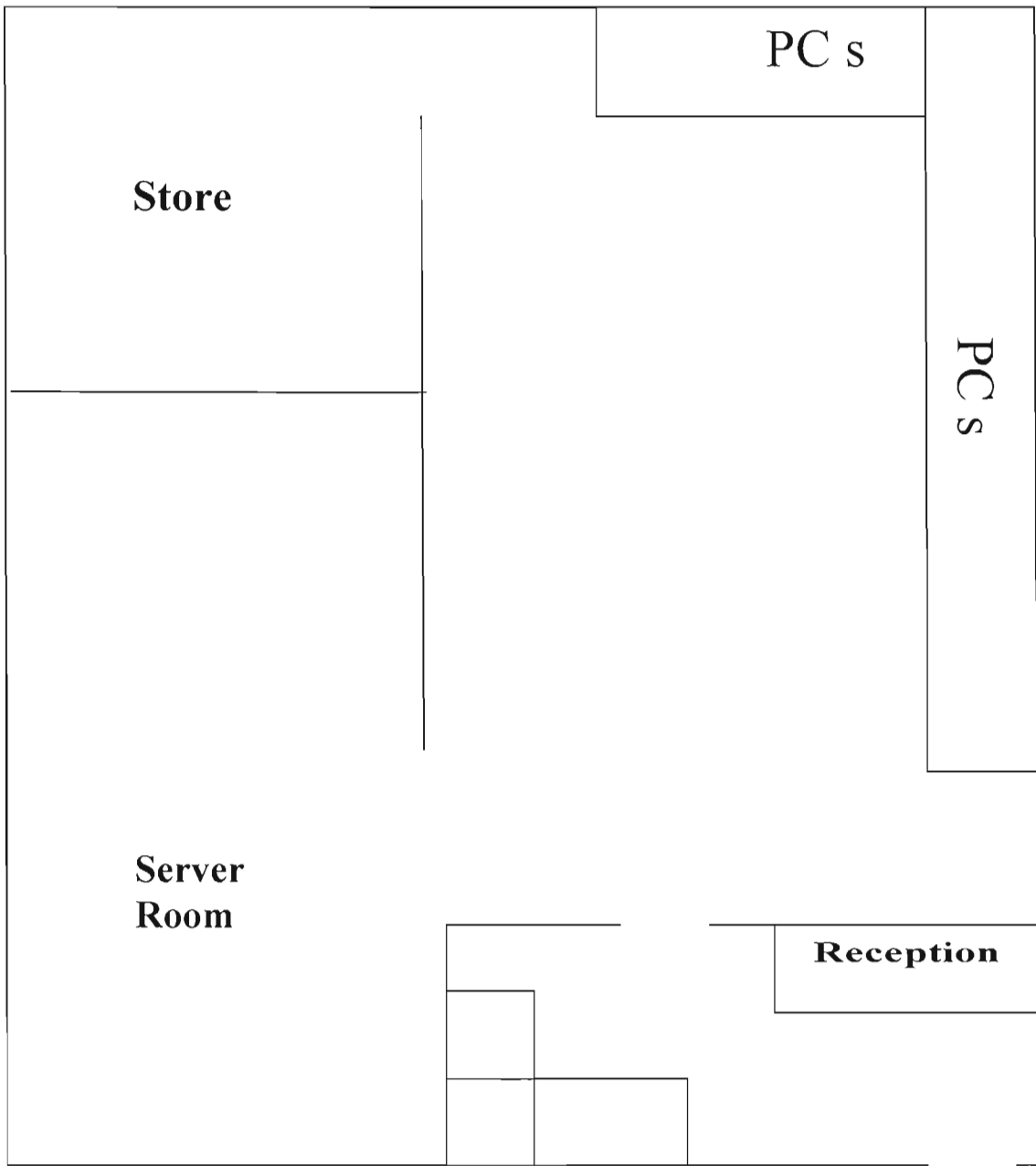


FIGURE 3.3: Main office Layout

3.5.2 ATM Outlets

At the initial stage we will set up 10 ATM's in different locations of Dhaka city. The list of ATM machines in Dhaka City:

Table 3.4 ATM Locations

SI No	Location	# Of Machines
1	Mothijheel	1
2	Dilkusha	1
3	Dhanmondi	1
4	Gulshan -I	1
5	Gulshan-II	1
6	Mohakhali	1
7	Elephant Road	1
8	Mirpur	1
9	Uttara	1
10	Airport	1

Features of outlets

Floor location: Ground Floor with an opening towards main road

Size: Minimum 120 Sft

Optimum Size: 10ft X 12ft

Height: Minimum 10 ft

3.6 Machine & Equipments

All the equipments will come with 3 years replacement warranty. Moreover after installation, vendor's agents will monitor the performance. The lists of necessary equipments are as follows;

Hardware Requirement in Main office

SI No	Name & Description	No. of Units
1.	LINUX Based A-28i Server	2 Unit
2.	Intel Pentium 4 Personal Computer	10 Unit
3.	16 Port hub	2 pc
4.	Switch	5 pc
5.	Memory box	3 Unit
6.	1/3 'Cable	10 Roll
7.	1' Cable	3 Roll
8.	100 Tower	1 pc
9.	Wireless Model	5 pc
10.	Router	10 pc
11.	Communication Disk	2 pc

Hardware requirement in ATM Booths

SI No	Name & Description	No. of Units
1.	XEROX ATM Machine. Including 14" Color Monitor Steel plated 20 key pad CC Camera Password Protected Cash Box Modem and Router Cable and Antenna	1 Unit
2.	Backup Power Source (IPS)	1 Pc
3.	A Telephone line connected to Customer Service	1 Pc
4.	A Pentium 4 Computer in the Back Room	1 pc

Hardware requirements in branches

SI No	Name & Description	No. of Units
1.	Intel Pentium 4 Computer	2 Pc
2.	Modem	2 Pc
3.	Router	2 Pc
4.	Cable	2 Rolls
5.	Switch	1 Pc
6.	Wireless Modem	1 pc
7.	Antenna	1 pc

3.7 Installation and Maintenance

Both foreign and local technical persons will supervise the installation process. The vendors of each equipment will provide support. They will also undertake the maintenance part. Most of the vendors have their branch office in Dhaka or have agents in Dhaka. Moreover we have our own technical team who will be able to conduct lower level troubleshooting.

3.8 Utilities

We will need uninterrupted power supply to give our clients a smooth stream of service. To ensure this we will need IPS (Instant Power Supply) and UPS (Un-interrupted Power Supply) as backups. The capacity and quantity each backup power is required is listed below;

Table 3.5 Power backup Equipment

SI No	Name & Description	Attached Machine	
1.	1000 VA UPS	Server	2 Pc
2.	Generator (Yamaha-122e)	Server	1 Pc
3.	500 VA UPS	PC	10 Pc
4.	IPS (1000Watt)	PC	10 pc



3.9 Transportation

A Microbus will be needed for the transport purpose of the technical team. As this setup is highly technical, the technical team needs to reach the branch of the ATM outlets as soon as possible in case of machine mal functioning.

3.10 Furniture & Fixtures

Furniture will be needed for Main office only. The list of Furniture is

Table 3.6 Furniture in main office

SI No	Name & Description	Quantity
1.	Sofa set	2 sets
2.	Computer Table & Chairs	10 set
3.	Single Chairs	10 Pc
4.	File Cabinet	5 Pc
5.	Open Self	5 pc
6.	Couch	2pc

Table 3.7 Furniture in branch office

SI No	Name & Description	Quantity
1.	Computer Table & Chairs	1 set
4.	File Cabinet	1 Pc

3.11 Safety

As the equipments are highly technical, we need to adopt the highest safety measures possible. We can point out some as

- The server room should be fire proof.
- Smoking will be banned in office premises.
- Humidity and temperature needs to be controlled.
- 24 hours security guards in ATM outlets.

Chapter 4

Marketing Aspect



Chapter 4

Marketing Aspect

4.1 NEW PRODUCT DEVELOPMENT PROCESS

For developing a new product there is little standard procedure that the company must go through. The whole procedure can be divided in the following steps.

4.1.1 Idea generation and idea screening

The very first step in any new product development is the identification of the opportunities or the prospects that are available in the market. And this is called idea generation. Idea can come from various sources and some ideas are very bright and some are not so promising. So the company must separate the bright ones from the less bright ones and this is exactly what happens in idea screening. In idea screening the main objective is to reduce the selecting errors like accept error and the reject error.

4.1.2 Concept development and testing

The consumers do not buy the ideas rather they buy the concept. The concept is the transformation of the ideas into meaningful consumer terms. First the company develops a concept on the basis of the idea selecting (through idea screening) and then they try to test the concept in the market through various methods. In concept development the first thing that has to be done is to find a position or

slot for the product using the **product positioning map** and then the position product is converted into brand concept through the *brand positioning map*. Finally in the testing part the concept is put in the market on a selective basis to find out the reaction of the users for the product concept.

4.1.3 Marketing strategy development

After the testing of the concept, the new-product manager must develop a preliminary marketing-strategy plan for introducing the new product into the market. The plan consists of three parts. The first part describes the target market's size, structure, and behavior; the planned product positioning; and the sales, market sales, market share, and profit goals sought in the first few years. The second part outlines the planned price, distribution strategy, and marketing budget for the first year and finally in the third part the long run sales and profit goals and marketing-mix strategy are chalked out.

4.1.4 Business analysis

The next step in the launching of the new product is the business analysis. Here the cost, sales and profits are analyzed. The first thing to in business analysis is to estimate the sales and the sales pattern. Some product may enjoy rapid growth in the introductory stages and some may take a long time to reach stability. So sales pattern are essential for the managers to plan for the future. The next consideration is the cost and the profit. The cost of any product usually reduces with increase in sales but after a certain level it starts to dip again. And profit is also related with the cost. So the firm would ideally

want to operate on the level where the profits are maximum. But it is not always true. Sometimes the firm may operate on lower profit margin range for capturing the market or for other reasons. And all these are considered at this stage that is in the business analysis stage.

4.1.5 Product development

If the product concept passes the business test, it moves to the R&D or engineering to be developed into a physical product. Up; to now it has existed only as a word description, a drawing, or a prototype. This step involves a large jump in investment that dwarfs the costs incurred in the earlier stages. The R&D department will develop one or more physical versions of the product concept. Its goal is to find a prototype that consumers see as embodying the key attributes described in the product concept statement that performs safely under normal use and conditions, and that can be produced within the budgeted manufacturing costs. Developing and manufacturing a successful prototype can take days, weeks, months, or even years.

4.1.6 Market testing

After management is satisfied with functional and psychological performance, the product is ready to be dressed up with a brand name and packaging, and put to a market test. The new product is introduced into an authentic setting to learn how large the market is and how consumers and dealers react to handling, using, and repurchasing the product. But not all the companies go for market



testing. The market testing is influenced by the investment cost and risk and with the time pressure and research cost.

4.1.7 Commercialization

The final stage in the launching a new product is the commercialization. If the company goes ahead with commercialization, it will face its largest costs to date. The commercialization stages takes into consideration the aspects of When to launch (timing), Where to launch (geographic strategy), to whom (target-market process) and How (introductory market strategy).

4.2 IDENTIFYING MARKET SEGMENTS AND SELECTING TARGET MARKETS

In today's world the buyers are large in number and they have thousands of choices. So it is very difficult to serve the entire buyer with same efficiency and effectiveness for any company. This gives rise to the concept of segmentation in the marketing process. In the segmentation the buyers are segmented into different categories according to similar likes or dislikes. The main advantage with the segmentation over the mass marketing is that it gives the company a better chance to be specialized in the marketing segments but it is not possible to be specialized in all the market demands.

The market segmentation is usually done through three main steps as described in the following sections.



4.2.1 The Market segmentation Procedure

Step one: Survey stage

The main objective of this stage is to get the relevant data through some specified process. The researcher conducts exploratory interviews and focus groups to gain insight into consumer motivations, attitudes, and behavior. Then the researcher prepares a questionnaire and collects data on attributes and their importance ratings; brand awareness and brand ratings; product-usage patterns; attitudes toward the product category; and demographics, geographic, psychographics, and media graphics of the respondents.

Step two: Analysis stage

Once the data are collected in the first stage the researchers apply the *factor analysis* on the data to remove the highly correlated variables and then *cluster analysis* is applied to create different segments.

Step three: Profiling stage

All the cluster of the different segments is finally profiled according to their distinguishing characteristics or dominant characteristics. And with that the market segment are ready for evaluating to reach a decision to on what segment(s) the company should concentrate.

4.2.2 Market targeting

After the proper segmentation of the total market is done the company should decide on the segment(s) on which it should concentrate or in what way it should concentrate and it is commonly known as market

targeting. There are mainly two steps in market targeting. The first step is to evaluate the different segments keeping in view the company objectives, the profitability, economies of scale and similar concerns. And in the second step the company decides on the approach of marketing toward reaching the target.

For selecting the market segments or the approaches toward targeting can be of different types as briefly described in the following section.

Patterns of target marketing:

Single-segment concentration: As the name suggests here the company concentrates on one of the various segments available in the market.

Selective Specialization: In selective specialization the company concentrates on some selected product for satisfying the selected target group.

Product specialization: In this approach the company tries to cover the whole market for a single product. That is it tries to specialize in one product so that they meet all the market demand for that product.

Market Specialization: The opposite approach to the product specialization is the market specialization. Here the company specializes in one market segment but they don't just provide one product but meets different kind of product demand of that market segment.

Full coverage: Even though this is very difficult approach but some companies do follow this approach. In this pattern market segmentation is in some way broken down and the company concentrates on the total market with whole range of product.

4.3 PRODUCT DIFFERENTIATION AND POSITIONING

To survive the intense competition the companies must have some distinctive features that are valued by the buyers and are not available in the other competitor's offering. And this whole process is called the differentiation. There could be different ways to differentiate like product differentiation, services differentiation, personnel differentiation, channel differentiation and image differentiation. But for launching the new product the differentiation of product is probably the most important differentiation process. The product differentiation can be done through the different attributes of the product as discussed in the following section.

4.3.1 The product differentiation

Physical products vary in their potential for differentiation. At one extreme we find products that allow little variation like chicken, steel etc and on the other end there is this whole range of products which can be highly differentiated like the automobile, furniture etc. for product differentiation the parameter are many but the major ones are product form, features, performance quality, conformance quality durability, reparability style and design.

Form: Many products can be differentiated in *form*, the size, shape, or physical structure of a product.

Features: Most products can be offered with varying *features*, characteristics that supplement the product's basic function. Being the first to introduce valued new features is one of the most effective ways to compete.

Performance quality: Most products are established at one of four performance levels: low, average, high, or superior. *Performance quality* refers to the level at which the product's primary characteristics operate.

Conformance quality: Buyers expect products to have a high *conformance quality*, which is the degree to which all the produced units are identical and meet the promised specifications.

Durability: *Durability*, a measure of the product's expected operating life under natural or stressful conditions, is a valued attribute for certain products. Buyers will generally pay more for vehicles and kitchen appliances that have a long-lasting reputation.

Reliability: The *reliability* is a measure of the probability that a product will not malfunction or fail within a specified time period. And buyers would pay a premium for more reliable products.

Reparability: Buyers prefer products that are easy to repair. *Reparability* is a measure of the ease of fixing a product when it malfunctions or fails. And automobile made with standard parts that are easily replaced has high reparability. Ideal reparability would exist if users could fix the product themselves with little or no cost.

Style: *Style* describes the product's look and feel to the buyer. Buyers are normally willing to pay a premium for products that are attractively styled.

Design: As competition intensifies, *design* offers a potent way to differentiate and position a company's products and services.

4.4 PRODUCT POSITIONING

Like the differentiation the positioning of the product is one of the major factors to survive in the competition. Differentiation is the



technique by which the product is varied from the other products but positioning works in the mind of the consumers. If consumers are left alone they are confused and would not be attracted by the product. But by positioning a company can specify or create a position or slot in the minds of the users so they use that product for that purpose. For an example the "Maggie Noodles" when first came in the market it had to fight with the normal noodles available in the market. So it differentiated its product by introducing the spicy taste. But the company also levels a tag line to the noodles pack saying "instant noodles" and by this it took the position where people are looking for a quick snack (like in the afternoon).

Positioning strategies: For both current and new product the company may face the problem of already occupied and hard to change positioned brand. To compete with this the company may three strategies. The first strategy is to strengthen its own current position in the consumer's mind. The second strategy is to grab an unoccupied position. And finally the third strategy is to deposition or reposition the competition.

The positioning errors: Once the company decides on its positioning policies and strategies it must give maximum effort to communicate the positioning to the consumers. If the company fails to communicate it's positioning properly then there arises the positioning errors like *under-positioning*, *over-positioning*, *confused positioning* and *doubtful positioning* and these errors hampers the whole purpose of the marketing effort and could cost company a lot.



4.5 DESIGNING PRICING STRATEGIES AND PROGRAMS

Setting the price for the new product:

A firm must set a price for the first time when the new product is developed and launched.

Many factors have to be considered in setting the pricing policy. The following sections describe the six major steps in setting the price.

Selecting the pricing objective: The firm has its own objectives and the price should be set according to the objectives of the firms. A firm can pursue any of the five major objectives through pricing: survival, maximum current profit, maximum market share, maximum market skimming, or product-quality leadership. For an example if the objective of the firm is to earn just enough profit so that it can stand in the market then the firm should go for survival pricing strategy where the price is set in such a way that it just covers the variable cost and a little portion of the fixed cost. In other words the profit margin is very low.

Determining demand: The demand in the market or the pattern of demand regulates the pricing policy in a big way. For example a company cannot set a high price for very price sensitive market. So these demand and the pattern of demands should be very carefully determined to give the firm the guideline for pricing which would be easily accepted in the market and at the same time would give the firm maximum opportunity to the firm to reach its objectives.

Estimating costs: Any production has two types of cost associated with it. The fixed cost (which is used to build the capacity and does not

change with the level of production) and the variable cost (which varies with the change in the production level). Usually with increase production the costs per unit (the average cost) reduces, as the total costs (fixed and variable) is spread over a large unit. But after certain level the costs starts to rise as the efficiency of the machine or the manpower is reduced with over the capacity production or the crowding of too many people for the same job. So the firm should develop or estimate an average curve structure and find out the optimal level of production and thus set the price for that level of costs.

Analyzing the competitors' costs, prices, and offers: The price for any product is bound to be influenced by the prices or the policies the competitors take for similar kind of product. For example if the competitors price is too low then the company may not opt for a greater profit margin or may even have to reduce the price further (negative margin) to kick out the competitors.

Selecting a pricing method: Given the three Cs— the customers' demand schedule, the cost function, and competitors' prices— the company is now ready to select a price. There are many methods available for selecting the prices and the major ones are; Markup pricing, Target return pricing, Perceived value pricing, Value pricing, Going-rate pricing and Sealed bid pricing.

Selecting the final price: Pricing methods narrow the range from which the company must select its final price. In selecting that price, the company must consider additional factors, including psychological

pricing, the influence of other marketing-mix elements on price, company pricing policies, and the impact of price on other parties.

4.6 MARKETING STRATEGIES FOR THE INTRODUCTORY STAGES

Because it takes time to roll out a new product and fill dealer pipelines, sales growth tends to be slow at this stage. There are several causes for the slow growth; delays in the expansion of production capacity; technical problems; delays in obtaining adequate distribution through retail outlets; and customer reluctance to change established behaviors.

Profits are negative or low in the introduction stage because of low sales and heavy distribution and promotion expenses. Much money is needed to attract distributors. Promotional expenditures are at their highest ratio to sales because of the need to (1) inform potential consumers, (2) induce product trial, and (3) secure distribution in retail outlets. Firms focus their selling on those buyers who are readiest to buy, usually higher-income groups. Prices tend to be high because costs are high due to relatively low output rates, technological problems in production, and high-required margins to support the heavy promotional expenditures.

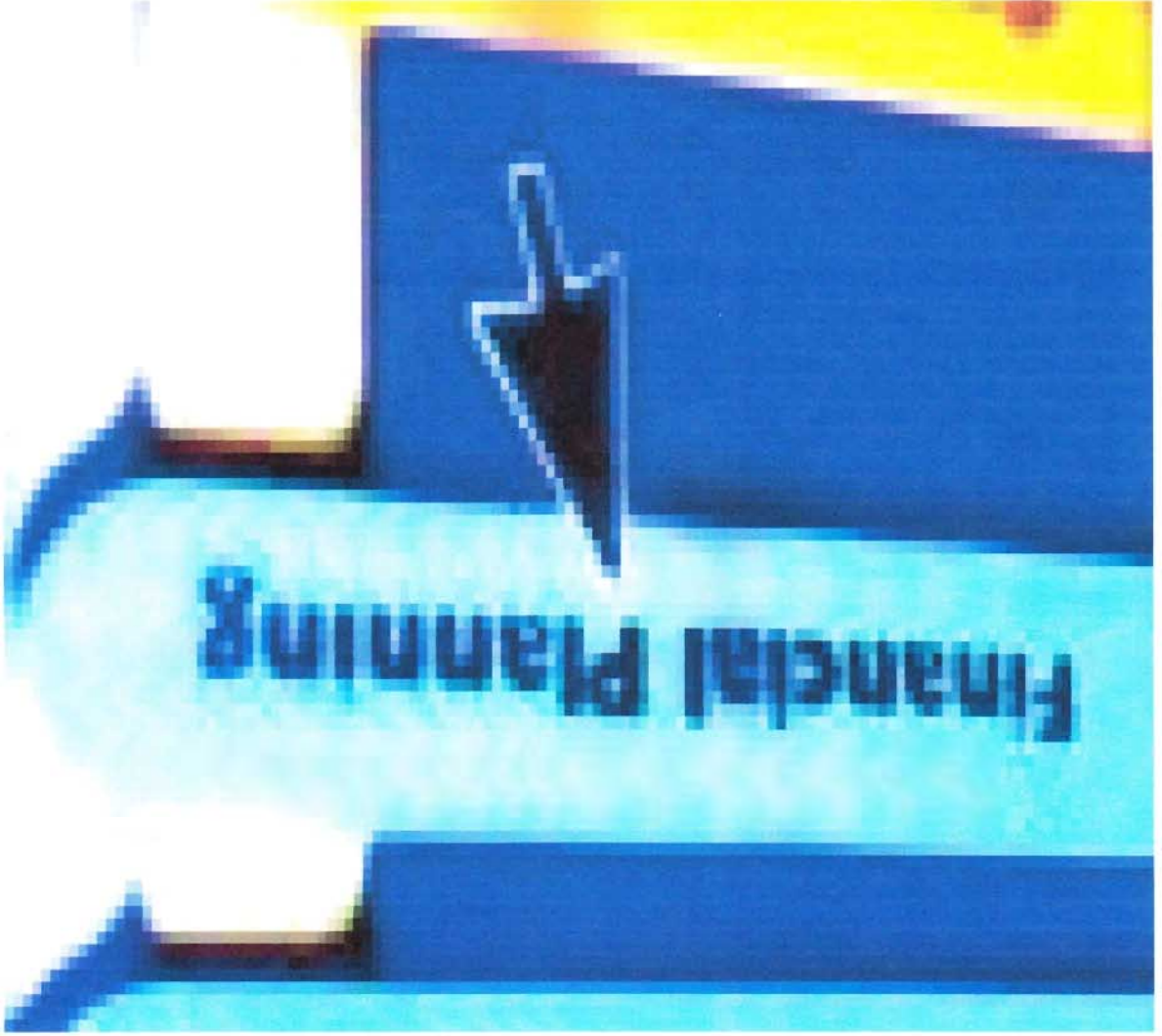
In launching a new product, marketing management can set a high or a low level for each marketing variable (price, promotion, distribution, and product quality). Considering only price and promotion, management can pursue one of four strategies.

Rapid skimming: Launching the new product at a high price and a high promotion level. This strategy makes sense when a large part of the potential market is unaware of the product; those who become aware of the product are eager to have it and can pay the asking price; and the firm faces potential competition and want to build brand preference.

Slow skimming: Launching new product at a high price and low promotion. This strategy makes sense when the market is limited in size; most of the market is aware of the produce; buyers are willing to pay a high price; and potential competition is not imminent.

Rapid penetration: launching the product at a low price and spending heavily on promotion. This strategy makes sense when the market is large, the market is unaware of the product, most buyers are price sensitive, there is strong potential competition, and the unit manufacturing costs fall with the company's scale of production and accumulated manufacturing experience.

Slow penetration: Launching the new product at a low price and low level of promotion. This strategy is used when the market is large, is highly aware of the product, is price sensitive, and there is some potential competition.



Financial Aspects

Chapter 5

Chapter 5

Financial Aspects

5.1 Introduction

The financial forecasting of this project is very supportive. Almost the indices indicate this projects success. Below we have explained details about the financial aspects of this project.

5.2 Cost of the Project

The total cost of the project has been estimated at TK. 1200 Lac. Major portion of this fund will come from bank Loan and the rest will be arranged by the promoters. The table below shows the sources of fund:

Table 5.1 Bank Loan & Sponsor's Contribution

Sources	Investment (in Lac)	% of Total Investment
Promoters	480	40%
Bank	720	60%
Total	1200	100%

The Bank: The ABC Bank Private Ltd.

Debt – Equity Ratio: 60: 40

5.2.1 Bank Facility

Loan Amount: 720 Lac

Payment period: 8 Years including 6 months Grace Period

Rate of Interest: 14%, charged Quarterly

5.2.2 Breakup of Project Cost

Table 5.2: Projected Cost of the project



SL No	Item	Cost (in Lac)
1.	Advance Rental	3.60
2.	Interior Decoration	15.00
3.	Restructuring Office Space	20.00
4.	Equipment-Accessories (local)	56.70
5.	Equipment- Server & PC's (Foreign)	566.80
6.	Furniture (Main Office)	13.50
7.	Furniture (Branches)	7.80
8.	Advance Rental for ATM	10.00
9.	ATM	300.00
10.	Air Conditioner	150.00
11.	Salary	10.60
12.	Technical Consultant	1200
13.	Others	34.00
	Total	12000.00

5.3 Financial Evaluation

The profitability analysis of the project has been computed for our projected four years of operation to assess the financial viability of the

project. The financial projections that have been made include sales estimate, cost of goods sold, administrative expenses and financial expenses. The consolidated statement showing in the results of the projections is shown in the earning forecast below

Table 5.3 Earning Forecast

	Year I	Year II	Year III	Year IV
Sales revenue	1,438,800	2,158,600	2,918,200	3,657,800
Cost of good sold	667,100	1,248,700	1,873,300	2,481,200
Gross profit	771,700	909,900	1,044,900	1,176,600
General, Administrative and selling expenses	204,600	220,000	248,600	292,800
Operating profit	567,100	689900	796,300	883800
Service charge	391,900	418,500	422,900	407,200
Net profit before taxes	175200	271400	373400	476600
Income tax	26280	40710	56010	71490
Net profit after taxes	148920	230690	317390	405110
Appropriation of profit @ 50.00% for purchase of Govt. bond	74460	115345	158695	202555
Net profit after purchases of Govt. bond	74460	115345	158695	202555
Return to Govt. @ 22.00%	33507	51905	71413	91150
Net profit after return on Govt. bond	40953	63440	87282	111405
Appropriation of profit @ 20.00% for dividend	29784	46138	63478	81022
Retained earning	11169	17302	23804	30383

Assumptions underlying the financial projections

The main assumptions on the basis of which the financial projections have been made are given blow:

The projected capacity of the project ahs been assumed to be 60%, 70%, 80% and 90% in the first four years of operation respectively.

The cost of imported Machinery, and maintenance charges have been kept constant throughout the projections on the assumption that increase charges will be offset by increase in selling prices of the product.

The rates of depreciation / amortization of various assets and the project are:

- Building (rental advance) @ 20% per year
- Machinery & Equipment @ 10% per year
- Furniture & Fixtures @ 20% per year
- Preliminary Expenses @ 20% per year

Insurance premium 0.5% of the cost of all fixed assets and @ 1.0% on all stocks.

Other expenses viz. Power, fuel, wages, salaries, etc. Have been charged as per the prevailing market prices.

General and administrative expenses have been estimated as per the prevailing market prices.

The project is proposed to be located at Motijheel. As the project is a new one, therefore, it will get the benefit of Tax holiday for 5 years. This has also been taken into account while doing the projections.

Based on the above projections, the earning forecast of the project reveals the following:

Profitability

	Year -1	Year-2	Year-3	Year-4
Capacity utilization	60%	70%	80%	90%
Sales	14,38800	21,58600	29,18200	36,57800
Gross Profit	7,71700	9,09900	10,44900	11,76600
Operating Profit	5,67100	689900	79,6300	883800
Net Profit	175200	271400	373400	476600

Ratios

Gross profit to sales (%)	17.38	17.57	17.66	17.67
Net profit to sales (%)	3.95	5.28	6.31	7.16
Return on equity (%)	32.54	27.46	23.77	20.94
Return on investment (%)	26.57	25.86	23.85	21.33

Debt Service Ratio (DSCR)

Based on the project earnings and tax holiday benefit, the project's debt servicing ability has been estimated as given below:

Break - Even Analysis

The break-even analysis has been created out on the basis of cost and sales data of 4th year projected operation. The project is expected to break- even at 32.85% of the rated capacity. The details of break-even analysis have been given at Annexure – III.

Table 5.4: Break Even Analysis
(Amount in Taka)

Items	Fixed Cost	Variable Cost	Total Cost
Raw and packing materials	0	51028316	51028316
Wages and salaries	444000	1525802	1969802
Factory rent	420000	0	420000
Stores and spares	23922	86118	110041
Repairs and maintenance	11961	96881	108842
Carriage inwards	0	359979	359979
Insurance	56633	54359	110992
Water, power, fuel and lubricants	21700	156591	178291
Depreciation and write-off	650460	0	650460
Other manufacturing overhead	25000	22499	47499
Administrative salary	1422660	549621	1972281
Office rent	60000	0	60000
Transportation	107994	71996	179990
Office supplies	28499	18999	47498
Postage, telephone, telexes etc.	56998	37998	94996
Traveling	56998	37998	94996
Audit fees	30000	0	30000
	0	0	0



Selling and sales promotion	28499	18999	47498
Miscellaneous administrative overhead	417046	1931814	2348860
Interest expenses	0	0	0
In come-tax			
Total	3862372	55997970	59860341

S - V 66578121 - 55997970 profit

a. Profit volume (P/V) Ratio: ----- = -----
 Sales
 =15.89%

b. Break even sales in taka = -----
 Fixed cost
 P/V ratio
 = 24304893
 = 36.51% of Utilized capacity
 i.e. 32.85% of Rated capacity

Cash Flow Statement

The projected earning forecast indicates that the projects will have comfortable fund generation at the end of each year. The project will be able to meet all its operational expenses, repay its debt obligations, provide substantial returns to the sponsors and build a responsible reserve. The details of cash flow may be seen at Annexure.

Projected Balance Sheet

The projected balance sheet of the project also shows that the project will be able to maintain a healthy liquidity position throughout the operational life. The details are given at below

**Table 5.5 Projected Balance Sheet
(Amount in Taka)**

Items	CONST N. Period	Year: 1	Year: 2	Year: 3	Year: 4
Assets:					
Current assets:					
Cash and bank balance	667434	159667	3424	60414	94527
Other current assets	0	3	784	54	19
		123775	1435	16410	18562
		40	342	217	129
Total currents assets	667434	139742	1777	22451	28014
		13	8125	672	847
Other assets:					
Interest during const. Period	752981	602385	4517	30119	15059
Preliminary expenses (net)	500000	400000	89	3	6
Investment in govt. Bonds	0	175226	3000	20000	10000
Fixed assets (net)	516329	7	00	0	0
	9	461283	4080	69166	10161
		9	922	40	028
			4062	35119	29614
			379	19	59

Total other assets	641628 0	736749 0	8895 090	10929 751	13373 083
Total assets	708371 4	213417 04	2667 3215	33381 423	41387 931
Liabilities & owners equity			1360	15550	17561
Liabilities:		117101	3419	902	947
Accounts payable	0	06	9112	91120	91080
Short tern liabilities	455600	911200	00	00	0
Long liabilities	439738 1	333558 5	2273 789	12119 93	15059 6
Total liabilities	485298 1	159568 92	1678 8408	17674 095	18623 343
Owners equity		223073 2	2230 732	22307 32	22307 32
Paid up capital	223073 2	175226 7	4080 922	69166 40	10161 028
Investment in govt. bonds	0	140181	3573	65599	10372
Retained earnings	0	3	153	56	827
Total equities	223073 2	538481 2	9884 807	15707 328	22764 588
Total liabilities and owners equity	708371 4	213417 04	2667 3215	33381 423	41387 931

Internal Rate of Return (IRR)

The internal rate of return has been computed following the DCF technique, the details of which may be seen at Annexure – XIII. The project promises an internal rate of return of 28.65%.

Sensitivity Analysis

Sensitivity analysis of the project has been done on the basis of 5% decrease in the proposed selling price of the product, 5% increase in the market price of raw and packing materials, and dyeing and finishing charge and 5% decrease in the assumed capacity utilization. The project withstands all the sensitivity tests, a summary statement of which has been placed at Annexure – XIV.

Disbursement of loan

BSB loan of Tk. 4100000 will be disbursed as per actual requirement in the following manner:

1st installment of: Tk. 3050000 will be disbursed through L/C opening bank for importing machinery. This is subject to sponsor's deposit of Tk. 1284599 for sponsors margin import duty and other expenses on imported machinery for opening of L/C. and conformation of payment of rental advance of Tk. 240000

2nd installment of: Tk. 600000 will be disbursed for purchase of local equipment (Tk. 300000) and for bearing the cost of erection and installation of machinery and equipment (Tk. 150000).

3rd installment of: Tk. 600000 will be disbursed after the trial operation for meeting working capital required of the project

All financial transaction during the period of implementation will be transaction through a joint bank account to be operated by the main sponsor and a BSB representative.

Security of loan

BSB loan of Tk. 4100000 will be secured by:

Personal guarantee of all the sponsoring directors.

Mortgage / hypothecation by way of first charge on the tangible assets (machinery and equipment, etc) of the project, estimated at Tk. 4784599.

Sponsors offering of collateral security of a residential land measuring 8.25 decimal (5 kathas) at TB Cross Road, Dhaka value declared at Tk. 500000 owned by Miss. Farhana Rashid.

Insurance guarantee from reliance insurance limited against nonpayment of installments of BSB loan to be availed of the sponsors.

The insurance guarantee should be executed as per a format provide by BSB.

Chapter 6

E-banking: Worlds Perspective





Chapter 6

E- Banking: Worlds Perspective

6.1 What is E- Banking

If you're like most people, you've heard a lot about E- banking but probably haven't tried it yourself. You still pay your bills by mail and deposit checks at your bank branch, much the way your parents did. You might shop online for a loan, life insurance or a home mortgage, but when it comes time to commit, you feel more comfortable working with your banker or an agent you know and trust.

E- Banking isn't out to change your money habits. Instead, it uses today's computer technology to give you the option of bypassing the time-consuming, paper-based aspects of traditional banking in order to manage your finances more quickly and efficiently.

Origin of E- banking the advent of the Internet and the popularity of personal computers presented both an opportunity and a challenge for



the banking industry. For years, financial institutions have used powerful computer, networks to automate millions of daily transactions; today, often the only paper record is the customer's receipt at the, point of sale. Now that its customers are connected to the Internet via personal computers, banks envision similar economic advantages by adapting those same internal electronic processes to home use.

Banks view E- banking as a powerful "value added" tool to Attract and retain new customers while helping to eliminate costly paper handling and teller interactions in an increasingly competitive banking environment.

6.2 Brick-to-click banks

Today, most large national banks, many regional banks and eve smaller banks and credit unions offer some form of E- banking, variously known as PC banking, home banking, electronic banking or Internet banking. Those that do are sometimes referred to as "brick-to-click" banks, both to distinguish them from brick-and-mortar banks that have yet to offer E- banking, as well as from online or "virtual" banks that have no physical branches or tellers whatsoever.

The challenge for the banking industry has been to design this new service channel in such a way that its customers will readily learn to use and trust it. After all, banks have spent generations earning our trust; they aren't about to risk that Web site that is frustrating, confusing or less than secure. Most of the large banks now offer fully secure, fully functional E- banking for free or for a small fee.



Some smaller banks offer limited access or functionality; for instance, you may be able to view your account balance and history but not initiate transactions online. As more banks succeed online and more customers use their sites, full functional E- banking likely will become as commonplace as automated teller machines.

6.3 Virtual banks

If you don't mind foregoing the teller window, lobby cookie and kindly bank president, a "virtual" or e-bank may save you very real money. Virtual banks are banks without bricks; from the customer's perspective, they exist entirely on the Internet, where they offer pretty much the same range of services and adhere to the same federal regulations as your corner bank. Virtual banks pass the money they save on overhead like buildings and tellers along to you in the form of higher yields, lower fees and more generous account thresholds. The major disadvantage of virtual banks revolves around ATMs. Because they have no ATM machines, virtual banks typically charge the same surcharge that your brick-and-mortar bank would if you used another bank's automated teller. Likewise, many virtual banks won't accept deposits via ATM; you'll have to either deposit the check by mail or transfer money from another account

6.4 Advantages of E- Banking



Convenience: Unlike your corner bank, E- banking sites never close; they're available 24 hours a day, seven days a week, and they're only a mouse click away.

6.4.1 Ubiquity

If you're out of state or even out of the country, when a money problem arises, you can log on instantly to, your E- bank and take care of business, 24/7.Transaction

6.4.2 Speed

E- bank sites generally execute and confirm transactions at or quicker than ATM processing speeds. Efficiency: You can access and manage all of your bank accounts, including IRAs, CDs, even securities, from one secure site.

6.4.3 Effectiveness

Many E- banking sites now offer sophisticated tools, including account aggregation, stock quotes, rate alerts and portfolio managing programs to help you manage all of your assets more effectively. Most are also compatible with money managing programs such as Quicken and Microsoft Money.

6.5 Disadvantages of E- banking

6.5.1 Start-up may take time

In order to register for your bank's online program, you will probably have to provide ID and sign a form at a bank branch. If you and your spouse wish to view and manage your assets together online, one of you may have to sign a durable power of attorney before the bank will display all of your holdings together. Learning curve: Banking sites can be difficult to navigate at first. Plan to invest some time and/or read the tutorials in order to become comfortable in your virtual lobby. Bank site changes: Even the largest banks periodically upgrade their online programs, adding new features in unfamiliar places. In some cases, you may have to re-enter account information.

6.5.2 THE TRUST THING

For many people, the biggest hurdle to E- banking is learning to trust it. Did my transaction go through? Did I push the transfer button once or twice? Best bet: always print the transaction receipt and keep it with your bank records until it shows up on your personal site and/or your bank statement.

6.6 E- Banking: Account Aggregation

Account aggregation: Managing all your finances in one spot

As brick-to-click banks developed more robust E- banking services, they quickly recognized an additional value-added function that would please (and thus help retain) their customers: account aggregation. Account aggregation enables you to use your private E- banking site to access financial accounts held at other institutions: deposit accounts, securities, credit cards, rewards programs and individual retirement



accounts. Any personal account information that can be viewed or managed through the Web can be aggregated into your E- bank site.

6.6.1 How it works

Once you've entered your user name and password to log on to your secure E- bank site, you select the accounts you wish to view, then enter the URL, user name and password for each. Your banking site automatically links, or aggregates, them into your banking site. Transactions initiated through your bank site aggregator are automatically entered into the appropriate online accounts just as if you were logged on to them directly. No more flipping between Web sites, each with its own user name and password requirements, to manage your finances. With account aggregation, you can view the status of all your accounts, including payment history and recent charges, all from one secure Web site, making bill payment faster and easier than ever. It's also great if you need to check the status of your accounts or pay your bills on the most banks that provide account aggregation do so free of charge as a relatively inexpensive online enhancement to attract and keep new banking customers.

6.7 Online Shopping At: Auctions

At nowhere else on the Internet does the free market economy rule as it does in online auctions: Ready buyers bid, money changes hands; ready sellers ship the goods and everybody's happy.





Well, almost. As with any endeavor involving humans and money, online auctions have suffered their share of scams, hustlers, cons, frauds and hackers out to cheat both buyers and sellers.

But in true democratic fashion, the law-abiding auction community has taken it upon itself to weed out the bad apples by posting publicly accessible profiles of buyers and sellers on the auction sites for all to see. Let the buyer -- and seller -- beware is the rule where online auctions are concerned.

6.7.1 How auctions work

Auction sellers register an item with the online auction site by providing personal information, a detailed item description, photo if available, minimum bid and reserve bid (if they desire to keep the item rather than sell it below a certain bid), payment and shipping information.

Online auction sites usually separate items into broad categories: single items with reserve bid, single items without reserve bid, multiple items available to multiple bidders and items instantly available at a certain price. Auctions may also feature a store where fixed-price items can be purchased.



Once you register as a buyer and thoroughly research the seller, the item, the time remaining, the current bid and the bid history, you are ready to make your bid.

Most online auction sites act as your proxy; that is, you designate the maximum amount you would spend on the item and your proxy keeps your bid as low as possible but incrementally ahead of the others until it reaches that level. If another bidder outbids you, the auction site will alert you via e-mail so you have the opportunity to enter a new bid, time permitting.

Once the auction is concluded, you will be notified via e-mail if you won; if not, you can check the auction site to find out who did and the amount of the winning bid. To claim your item, simply follow checkout instructions on how to pay the seller for your acquisition.

6.7.2 Paying online for auction items

The popularity of online auctions brought with it a payment dilemma: because online buyers and sellers typically don't know (or trust) each other, how could the item and the money change hands in a timely manner?

Buyers don't want to part with credit card or bank account information or pay without assurance that they will receive the item; sellers don't want to be stuck with a bad check or ship the item until they have cash in hand. To further complicate matters, most sellers don't have merchant accounts that would allow them to accept credit card payments.



PayPal and BillPoint, two leading payment providers now collectively owned by online auction giant eBay, allow you to pay via credit card or checking account debit. Beginning in 2003, PayPal will become the official e-payment provider to eBay and BillPoint will be phased out.

The e-payment provider holds the money in escrow and notifies the seller via e-mail that you have paid them for the item. The money is electronically debited from your account into the escrow account, then credited electronically into the account the seller registered with the e-payment provider.

The U.S. Postal Service and Check Free also offer Pay@Delivery, an e-payment provider that incorporates an electronic version of COD, or cash on delivery.

Buyers and sellers both benefit by online payment. Buyers don't have to share their account information with anyone but the e-payment provider, they can earn rewards points on their credit card and receive the item sooner. Although sellers pay a nominal fee based in part on the price of the item sold, they receive their money sooner via direct deposit and greatly reduce their exposure to fraud.

Despite the ease of e-payment today, buyers aren't the only ones stuck in the slow lane; many sellers still accept only cashier's checks or money orders for auction items.

6.7.3 Auction Tips

Here are a few tips when buying merchandise through online auctions: Avoid sellers who have numerous negative comments on their profiles



Know exactly what you're bidding on

Ask questions about an item before you bid

Contact the seller directly if you have complaints

Wait patiently for your item to arrive; large-volume sellers may only ship items once a week.

Use a payment method with which you feel comfortable

Write politely, calmly and rationally when you e-mail the seller or post feedback on the seller's profile

6.8 E-MAIL PAYMENT

Many E- banking sites now feature a service that private vendors have offered for years: the ability to use e-mail to initiate payments between individuals.

E-mail payments developed as a fast and easy alternative to checks and money orders for small transactions between individuals. When online auctions exploded on the Internet, e-mail payments offered sellers a way to accept credit card or account debit payments without the hassle and expense of opening a costly merchant account.

Private e-payment providers require both sides to sign up. Because buyers register their account number only with the e-payment service,



they can rest assured their account information won't fall into the unscrupulous hands of an auction scam artist.

Strictly speaking, cash does not actually flow via e-mail in an e-mail payment, but travels via the usual electronic routes, the same as a check or credit card transaction. The e-mail portion of an e-mail payment is used primarily to verify the identity of the recipient, notify them that a payment is forthcoming and when it has cleared, and if necessary, deliver instructions on how to receive a payment.

To initiate an e-mail payment through your private banking site, you will need to know at a minimum the e-mail address of the recipient, and depending on the e-payment provider, you may need the bank account number into which they want the money deposited. Once that information is entered, you select the account you wish to use, the amount you wish to send and the date you wish to send it, just as you would paying bills online.

6.9 ONLINE SHOPPING FOR: INSURANCE

Gone are the days when a typical American family purchased its insurance at the kitchen table while their agent smiled and dutifully handed them the pen. By 2004, the Internet is expected to influence more than a third of all insurance purchases, according to projections by the research firm International Data Corp.

The reasons are obvious: the Internet enables you to shop for information and quotes whenever you wish and instantly compare features and terms from a wide variety of companies.



This is not to say that having a living, caring insurance agent who knows you by name isn't a good idea. But why would you limit yourself to their few products and prices when literally thousands of offerings are just a click away? At worst, it will arm you with terms and prices for your local agent to match; at best, you'll hook up with great carriers with top products at fire-sale prices.

6.9.1 Understanding insurance sites

Even the most cursory glance at online insurance sites will give you a good sense of the fragmented nature of the industry, at least in the online space. Simply put, it's a jungle out there, with enough sites to make your head spin.

The good news is, you don't have to visit any of them to land top coverage at bottom dollar through a company that is likely to be in business when you need them.

To understand why, it helps to remember that insurance carriers traditionally market their policies through three different channels:

Independent agents, who often sell the products of multiple companies,

Exclusive agents, who represent a particular company's products, and

Direct sales through the company itself.



It stands to reason that an independent agent's Web site likely will provide information and quotes only on those products the agent sells. The sites of an exclusive agent or a major insurance carrier are equally unlikely to provide information or quotes on competing products.

Ironically, to find your best insurance deal, you need not visit a single insurance site, at least initially. So right there you've eliminated the need to shake electronic hands with more than 5,000 insurance carriers and more than 744,000 brokers and agents, according to insurance industry figures compiled by the Organization for Economic Co-Operation and Development.

Now that we've eliminated 99.9 percent of the possibilities, what's left? A virtual handful of unusually well designed and user-friendly sites that offer exhaustive educational resources, insurance news and, best of all, instant insurance rate quotes. You'll find a list of these sites by category at the end of this page.

6.9.2 Screening the candidates

Now that you've done your mouse work and narrowed the field, it's time to screen your semifinal candidates before signing on. You may be able to jump directly from a quote site to the site of the agents or carriers who best measure up. If not, use your favorite search engine to search by name. If they don't turn up there, you may find them through Insurance News Net, which offers an extensive list of links to home, life and health insurance carriers.



Once you've made your site visits and narrowed the field even more, it's time to check the ratings on your finalists. Remember, you want a sound company that's going to be around when the time comes to pay off, especially on your life, home and long-term care policies.

To make sure the company you insure with is sound and financially solid, check their ratings with at least three of the following insurance rating services:

Standard & Poor's rates more than 4,000 life, home and health insurers.

A.M. Best Co. rates more than 5,400 life, home and health insurers.

Moody's rates 700 life and home insurers.

Duff & Phelps rates 80 percent of life insurance carriers and 250 home insurers.

As a final precaution, check with your state's insurance department to make sure your finalist is licensed in your state to sell the insurance you need. You can find a list of state insurance departments on the American Council of Life Insurers site.

Whether you ultimately buy online or, as is more common, receive paperwork and follow through via fax or mail, you will have saved yourself countless hours with agents permanently bonded to your kitchen table by shopping for yourself on the Internet.

6.9.3 Life, Health and Dental



Here are a few of the major players offering life, health, dental and more:

Quicken.com offers an extensive insurance library, easy-to-input rate quote forms and a toll-free 800 number for live help with life, health, auto, home, disability, annuity and long-term care. Use its insurance planner, family needs planner, auto risks evaluator and life events advisor to help figure your insurance needs.

QuickQuote, founded in 1995 and owned by ING, the world's 25th largest corporation, offers quotes on life, health, auto, annuities and discount dental/prescription policies. It even facilitates vertical settlements. Unlike some quote sites, QuickQuote assigns a living, breathing case manager to expedite all phases of processing. It also screens its underwriters and claims that 82% of its customers receive their initially quoted rate. Licensed agents are available via 800 numbers during business hours only.

iLeads.com offers quotes on life, health, auto, home, disability, annuity and long-term care, as well as an extensive library, glossary and Top 10 reasons to buy each kind of insurance. One quibble: iLeads forms ask you to divulge how much you are paying now.

Pivot doesn't offer health quotes, but makes up for it with a dizzying array of life products, auto, home, even RV and pet insurance. Simple, easy to navigate, with handy planning tools, FAQ/glossary, ratings guide and state-specific buyer's guide.



ReliaQuote offers no health, but its life, auto and home quotes are easy to navigate. ReliaQuote is an affiliate of Motley Fool.com and shares that site's independent, pro-consumer approach.

InsWeb.com is a clean, easy-to-navigate site that offers instant quotes on auto, home, health and term life. One nice feature: InsWeb can save your account information for future searches.

Insure.com is arguably the most robust one-stop insurance site on the Web. In addition to quotes on auto, life, home, health and annuities, its resources include a complaint finder, lawsuit library, links, reader forum and a state-by-state ranking of insurance companies.

IntelliQuote quotes on its core product, term life, but offers auto, home, health and disability.

Yahoo! Finance offers full free quotes through InsWeb for shoppers who are more comfortable in the Yahoo! environment.

E*Trade offers auto, home and health quotes, but beware: some sections on the menu only quote from E*Trade's featured partners John Hancock (life) and AIG (auto).

6.9.4 Term life

Here are good starting points to find a term life policy:

Term prides itself in providing the most accurate quotes and only lists carriers rated a (excellent) or better by A.M. Best. Offers the five lowest quotes.



Quotetermlife.com provides a dozen quotes from major carriers.

6.9.5 AUTO INSURANCE

Autobytel.com and Auto Web both have handy links to auto insurance quotes while you're shopping for your dream car.

Need a refresher on how to buy auto insurance? Check out our Bank rate story to get the basics down before you browse.

6.10 Online shopping for: Loans and credit cards

Obtaining a loan has never been faster or easier than it is via the Internet. Financial institutions, money lenders and virtual brokers who will shop for a loan for you have quickly, embraced the savings in time, man-hours and paperwork that online loan application and approval affords. In some cases, they even pass that savings on to you in the form of better rates. Whether you apply for a loan online or merely shop for the best terms and price to use in negotiating with your bank or agent, a Web search for loan information has become a common first step for many credit-seeking individuals.

6.10.1 Auto loans and leasing

The Internet has revolutionized the way we research and buy vehicles today. In just a few minutes online, you can compile a virtual history of any used vehicle simply by knowing its vehicle identification (VIN) number, or get quickly up to speed on new models by checking out performance ratings, safety testing, car critic reviews and consumer



feedback. The same is true with auto loans and leases. Whether you buy from a franchise, a used car dealer or a private individual, you have numerous loan options online that can take as little as five minutes from application to approval. In many cases, you'll have cash in hand within 24 hours, a definite plus when negotiating for your new wheels. Experts agree that consumers lose more money by not understanding their automobile lease than on any other form of auto financing. A consumer brochure on leasing is available online from the Federal Reserve Board.

6.10.2 Should you buy or lease? How much will your lease cost

Bank rate provides the calculators as well as the Web's most up-to-date rates on new and used vehicle loans, lease buyout and refinance terms.

6.10.3 Credit cards

You would have to be a hermit not to have received a flood of credit card offers through the mail during the past few years. But the best way to find a card with the rate and features you want is to use the Internet. Bank rate offer apples-to-apples comparison of dozens of the best card offers; you can also get a wealth of information by logging onto the various card Web sites themselves Virtual banks offer some of the best credit card rates available.

In addition, some online issuers allow you to build your own customized credit card, so you can choose a low introductory APR that



jumps higher within a short period or a fixed rate that doesn't change. You can even put a picture of your dog or the kids on it.

Credit card sites have become powerful buying portals, too, enabling you to receive discounts and reward points when you make purchases with partner companies through the credit card site. You can also track your account and payment activity on many card sites, or link them to your private bank site's account aggregator and access your card information there.

Some online lenders also offer instant lines of credit with major online retailers that sell computers, furniture, jewelry, art and other high-ticket items. Essentially, these credit lines act much the same as the old revolving accounts once issued by retailers.

Today, many online retailers also offer partnered cards through the major credit card brands. And don't forget to check with your own bank when shopping for loan: They may meet your best quote or sweeten the terms just to deepen their relationship with you. Here are some loan and credit card sites of interest:

6.11 E- banking: Manage your accounts online

When you sign up for E- banking, you designate which accounts you wish to access online. Then you will be issued a user ID and temporary password via regular mail, e-mail or both, with instructions on how to use them to access the secure E- banking portion of your bank's site where your account information is available 24/7. Many banks require





you to change your password during your initial visit for added security.

These site "keys" are the only way to access your accounts online, so keep them in a safe place. Once inside your private site, you will have access to all of the accounts that you have registered for E- banking. You can easily view your current balances, recent deposits and payments, complete account history, and, in the case of securities, how your stocks, bonds and mutual funds performed over a given period, as well as current market value.

Most sites have a financial summary page that lists all registered accounts, so you can quickly glimpse your total assets and net worth. You may also sort your holdings by asset class, a feature that often comes with handy asset allocation pie charts that give you a quick snapshot of your current portfolio diversification.

6.11.1 Transfer money

If you elected to do so at signup, you can easily transfer money from one bank account to another by using the transfer function: you designate the transfer amount, from and to

Accounts, and when you want the transaction to occur, i.e. now or on a future date. The site will prompt you to confirm what you've entered. It may also warn you to click the final submit button only once; otherwise, you may trigger a double transfer. It's a good idea to print out your transfer receipt page and keep it with your account records

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until you see online that it has cleared or it is reflected on your bank statement.

Many sites also offer an array of transfer tools that allow you to set or change recurring transfers, check the status of a transfer, cancel a pending transfer and receive a transfer alert via e-mail when the transfer clears. Use this function to:

- Transfer money between accounts within your bank
- Make a payment on a loan from your bank
- Take an advance on your bank credit line
- Wire money to your account at another bank
- Transfer money from your account at another bank to your account within the bank.
- Trade securities

If you signed a trading authorization form, you and also your agent also can use the site to purchase, redeem or exchange equity shares through the bank's securities subsidiary.

Use this function to:

- Purchase additional shares of a bank fund by transferring money from an account
- Redeem fund shares via transfer into a deposit account
- Exchange shares between fund accounts, including IRAs Transfer between a brokerage account and a secondary linked account.
- Account posting

Most internal online transfers, including those between deposit accounts, brokerage accounts, payments from deposit account to loan



accounts and credit-line advances, post when requested and both accounts are immediately updated. Transfers into your accounts at other banks typically post within 2-days.

6.11.2 Alerts

For peace of mind, you may want to take advantage of your site's Web alert options. This instructs your bank to notify you via e-mail, wireless device and also on your private banking site when a particular event occurs. Alerts can help you better manage your accounts by raising a flag when:

An account balance rises above or drops below a certain amount

A CD is about to expire

A check clears

An account becomes overdrawn

The next-to-last recurring transfer occurs

A transfer fails

A new statement is available.

6.12 Online Shopping For: Mortgages

The expansion of mortgage lenders onto the Internet is a homebuyer's dream. No more visits to banks or mortgage brokers, no more long-winded phone calls -- you can save hours by shopping for a mortgage online first before selecting your lender. Even before you consider individual mortgage lenders, you can easily use online mortgage calculators to determine how much house you can afford, what your monthly payments will be, and interest rates nationwide at Bank rate's daily update of mortgage rates you'll find a wealth of information on



mortgage programs available online. Many mortgage brokers; banks and credit unions have detailed information and even loan applications on their Web sites.

6.12.1 Where to start

Should you apply for a loan online? Not immediately. Use lender Web sites in the same way you might use a magazine advertisement or billboard, as a place to start your relationship. If a lender or broker insists you fill out an application or charge you a fee to provide further information, move on; legitimate lenders want your loan business, not your lunch money. Once you've identified a lender you like, e-mail them to request more information or ask the mortgage specialist to call you.

Then, if you want to move ahead, download the mortgage application, print it, fill it out and send it by mail or deliver it in person. That way you won't have to worry about your financial information ending up in the wrong hands due to lax Internet or e-mail security.

The Internet is a great place to mortgage shop, but don't make the final commitment online. You will want to talk with the lender or broker, get all of your questions answered and establish a relationship of confidence and trust before placing your finances in their hands. Here are a few Web sites to get you started:

Mortgage Bankers Association of America
National Association of Mortgage Brokers
General Services Administration's
Consumer Information Center



Fannie Mae Dept. of Housing (HUD)

6.13 Paying Bills Online

For some computer users, paying bills online is as natural as using e-mail instead of writing a letter: its quicker, easier and best of all, free. For others, bill payment represents the final frontier of the Internet: Can I trust a computer program to keep my good credit clean, or should I just stick with writing checks and licking stamps?

If you're tired of licking stamps and ready to cross the border into electronic bill payment, you'll be happy to learn that it has never been easier.

Today, more and more brick-to-click and virtual banks are offering it free as an online service; others require a certain account minimum or charge a nominal fee, in part to defray the cost of a third-party e-payment provider.

6.13.1 Getting started

Getting started is easy. On your private banking site, you'll find guides to walk you through the steps of how to register the accounts you wish to pay from and payee accounts you wish to pay to. You only need to enter the account information once; your private banking site will keep those accounts available until you remove them. You can always change the accounts from which you wish to pay your bills and add more payees as needed.



U.S. banks often limit the scope of online bill payment to the United States, and may for legal reasons prohibit certain types of payments, including court-ordered payments and federal and state tax payments.

At the account registration stage, you also may be given the opportunity to receive some of your bills online, either via e-mail, through your private banking site, or both. An increasing number of larger companies now offer electronic billing, or e-bills, and accept electronic payment.

6.13.2 Scheduling payments

Once you have registered the accounts you wish to pay online, the next step is to schedule payment. You simply select the account you wish to pay from, the payee account you wish to pay to, the amount you wish to pay and the date you want the payee to receive the payment.

Your bank may set a minimum number of days, often four or five, as the earliest available payment date. You may also have the option to schedule recurring payments, make multiple payments at once, and automatically pay e-bills.

Your creditors receive your online payment in one of two ways: electronic payment or check. If the payee is set up to accept electronic payments, your payment is automatically debited from the account you select and deposited electronically into their account, just as if you had written a check. If the payee cannot accept electronic payments,



and most businesses cannot, they will be issued a check based on your online payment instructions, hence your bank's 4-5 day grace period.

Banks often contract with third-party providers to fulfill this online payment function. These same service providers often work with the payees as well, particularly large corporations, municipalities and utilities, to provide e billing and other cost-saving online features.

6.13.3 Tracking your payments

Naturally, you want to make sure your online bill payments get processed correctly and on time. Most bill payment sites include a payment activity page that lists all of your payments and their status - - scheduled, pending or processed. Remember, in addition to the four- or five-day delivery time on your bank's end, it could take several days for your creditor to apply the payment to your account.

For peace of mind, you may want to request that your bank send an alert to your e-mail, wireless device or private banking site when a payment clears.

6.13.4 Warning

Companies sometimes change the billing address or your account number without warning. It's important to check your statement each month to verify those details as well as your transactions. If the billings address changes, you could easily be hit with late fees even though your third party service made the payment in a timely manner. You may receive verification from your third party service that



payment has been made -- but it may go to the wrong place or be credited to the wrong account.

As with account transfers, you may want to print the transaction-completed or receipt page when you pay your bills online as a reminder to make sure they post on your private banking site or in your next statement.

In the future, online bill payment will likely enable you to view and pay your bills at your bank's automated teller machine and from mobile Internet-enabled devices such as your PDA or cellular phone.

N. Bill presentment: Snail mail or e-mail?

In order to pay a bill, you need to receive one first, right? So how does this happen when you pay your bills online? Do you get billed via e-mail, "snail mail," Web alert? Do you receive an itemized statement or just the amount due? And what about the little payment coupon that you normally send in with your check? Suffice to say, the financial industry has been there and solved that.

As a result, with most online bill payment programs today, you have control over how you receive your bills, and how and when you pay them. The digital world still meets the paper one at the billing level. Although some larger companies now offer online bill resentment e-mail or Web access to the same billing statement information you normally receive in the small to mid-size businesses, utilities and municipalities may remain bound to paper billing for some time.

As a result, you will likely continue to receive at least some of your bills through the U.S. Postal Service, whether you choose to pay them



online or by check, money order or credit card. Even if you receive electronic bill presentment, it may only include limited information such as the amount due; you may still have to wait for the paper statement for a full accounting. That said, companies of all sizes are rapidly exploring ways to both save money and deliver additional marketing messages to you via e-bill presentment, making it a virtual certainty that e-bills will be an increasingly available option for E-bankers.

How bill presentment work when a bill is presented electronically, you will probably receive it via e-mail. Some programs offer you the ability within the e-mail itself to pay the bill via account debit if you have completed the appropriate registration; other e-bill are static and for information only. Instead of, or in addition to, an e-mail bill presentment, you may receive a Web alert to your e-mail, your private banking site, or both that points to the secure Web page on which the bill is posted.

If your E- banking site has account aggregation and you have registered the payee account, you may be able to receive an alert when the e-bill is issued, pull u the bill and pay it, all from your secure banking site. Advantages of bill presentment E-bill presentment has several advantages; it can help organize the inherently disorganized by alerting you when your bills are due, it cuts down paper clutter and offers travelers and seasonal residents a hassle-free way to keep up on their bills.

Bill presentment programs also are becoming increasingly robust. Some allow you to sort charges by category; you could, break out the



travel and entertainment portion of your credit, card bill or sort your phone charges by area code, for instance.

You may be able to track the status of bills and, payments, view account history, search for a specific charge, establish automatic payment and even make online credit, requests, A possible downside to electronic bill presentment: your creditors will likely take the opportunity to piggyback advertising and marketing promotions onto their e-bills, just as they have done for years with paper bills.

Chapter 7

Different Aspects of Proposed E-Banking



Chapter 7

Different Aspects of Proposed

E-Banking

7.1 Management Aspect

Introduction

The proposed Easy-Bank project will be operated under direct supervision of our IT Division. But as it is a non-traditional project, the head of e-banking wing will directly report to the Managing Director of the bank time to time. The E-banking wing will be lead by the head of our IT Division who is Vice President. This wing will be consisting of 12 people. The job title of the members of this team is given below.

SI No	Designation	#Of Person
1	Vice President (Head of the Team)	1
2	System Engineer/ Administrator	1
3	Asst. Engineer	2
4	Officer	6
5	Pion	2
	Total	12



Qualifications and Job Description

Vice President: As the leader of the team he will be looking after the Administrative and managerial side of the project. But he must be having sufficient understanding about the technical aspect of the project. He will be total in-charge of the project and will report directly to the Managing Director of the Bank. This person must have technical knowledge as well as managing power. Hence an MBA with Computer Science background will be suitable for this post.

System Engineer/ Administrator: The technical side mainly will be in his supervision. This person must have post graduation in Computer Science and specialization in Wireless Communication. A foreign postgraduate degree is preferred. In banks structure his designation will be Assistant Vice President.

Asst. Engineer: Computer science graduates will be eligible for these posts. Their job responsibility will be monitoring and mid-level troubleshooting. We require 2 Asst. Engineer since we will be providing 24 hours service, and by rotation they will cover most of the time. Their designation in Bank will be Executive Officer.

Officer: The monitoring, Supervision and responding to phones will be done by the Officers. Any science graduate will be suitable for this post. By rotation at least 2 officers will be present at any time of day and night.



Pion: Two pion will be needed in daytime for office work. Mainly they will be needed in the peak hours.

The salary Structure

SI No	Designation	#Of Person	Individual Salary	Total Salary (Tk)
1	Vice President (Head of the Team)	1	30,000	30,000
2	System Engineer/Administrator	1	25,000	25,000
3	Asst. Administrator	2	20,000	40,000
4	Officer	6	12,000	72,000
5	Pion	2	3,000	6,000
	Total	12		173,000



7.2 Technical Aspects

Introduction

E-Banking is highly dependent on Internet and wireless communication. The infrastructure of telecommunication system in Bangladesh is not at all suitable for E-Banking. Hence our proposed E-Banking service "Easy-Bank" will depend on BTTB as minimum as possible. "Easy-Bank" will be established on its own wireless communication system using its own V-SAT. Different technical aspect of "Easy-Bank" is described in detailed in this chapter.

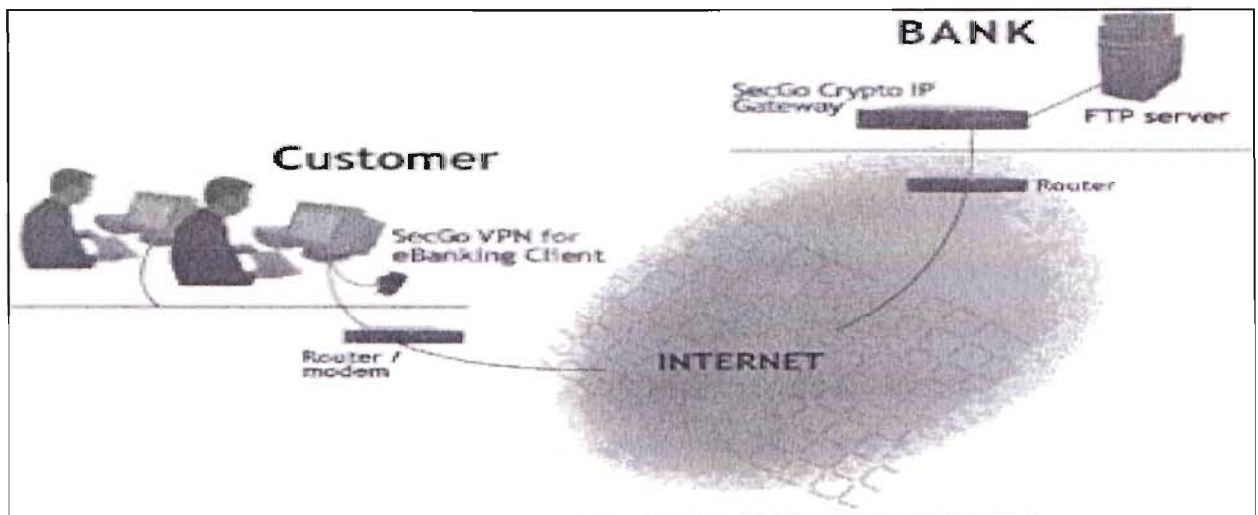


FIG: Basic Structure of "Easy-Bank" Technology





Products & Their Technical Requirements

As we mention in previous chapter, "Easy-Bank" mainly provide

- Any Branch banking
- Automated Teller Machine (ATM)
- Credit / Debit Card Facility
- Web Based Banking service.

Though these services will be in operation in different locations, the central control will be in the Head Office Building of our bank. From the central control the whole operation will be monitored. To provide above mentioned services we will need specialized premises for office and outlets, Software and Hardware as well as technical personnel to operate them.

Software

The main system that will relate these activities and maintain the information flow smooth in exclusive software that will

- i) Operate in server-client basis
- ii) Talk to the ATM Machine through wireless communication devices
- iii) Connect to the PC's in branch automatically and transfer necessary information.
- iv) Have a module that will maintain the web-page associated with "Easy-Bank"



- v) Easily accessible by Credit/Debit Card scanning machine from remote locations.

For our E-Banking service we will use well-known software "PC Bank" which is developed by LEADES Corporation. LEADES Corporation has an Office in Dhaka also to give technical support to their clients in Bangladesh. In addition to this main software we will need some supporting software. LEADES Corporation has agreed to supply that software also at a discounted price. The additional software we will need is,

1. For ATM Operation

An interactive software that will be installed in the ATMs in every ATM outlets. This software will scan the card, ask for authorization number, send it to the main server for verification, if the number is ok this software will give options about what service he wants and will send the information to the server in main office. If the client wants to withdrawal money, this software will be able to provide that also. Security is the most important feature of this software.

The security measures should be such that no person can operate it without a valid ATM Card. Moreover it will ascertain that a valid ATM Card holder can operate his account only, not other peoples account.

Quick and accurate flow of information is next important feature of this software. Any transaction taken place in any



remote outlet must be communicated to the main server within fraction of seconds. If communication cannot be established with the server no payment should be made from the machine.

This ATM Operation software of LEADS comes with a CC camera, so that every transaction is recorded for future use, if needed.

2. For Any-Branch-Banking Operation

This operation will be conducted by my mother application software "PC Bank". It will be installed in the computers in Branches as clients and in main control office as server. Hence it will work as Server-Client basis. Each and every transaction performed in branches will be relayed to the server through out own network. We have mentioned earlier, we will not depend on BTTB as their weak nature of networking.

Any-Branch-Banking will give freedom from branch specific accounts. A client having account in Dhanmondi Branch can operate his account for Motijheel Branch. Hence any transaction must be communicated to the main server as soon as possible. If for any reason the communication failed, the software will not perform the transaction and will give message about it. Here also security is very important so that no unauthorized person can access the software.



3. For Credit/Debit Card Operation

Till now in our country third parties do Credit/Debit card operation. MasterCard and VISA are to most popular card service in the whole world as well as in our country. They have their own satellite and wide network all over the world. Our service will only provide MasterCard or VISA card with access to our clients account, so that they can debit the account when the client buys some product using the card. Here also security and accurate and quick flow of information is very important. PC Bank can provide information to distant location like UK or US in fraction of seconds.

4. For Web-Based Banking Service

This application needs an interactive interface that can be linked to our web page in one end and with our central database in the main office on other end. This is a very simple and easy making application. But security of this should be at its maximum level. As we all know web is a very risky place and there are lots of smart peoples to hack our server. So, highest level of protection should be taken against those smart hackers. Otherwise they can mess the whole system within few minutes. It is a matter of comfort for us that LEADS Corporation has won the crown for Internet Security for lat three years. So with their supervision our system will be in good shape.



For software the Feasibility Study Committee recommend "PC Bank" as the most appropriate solution for our "Easy-Bank" Project.

Hardware

Since we are providing the service in a small geographic area, we don't need to go for Satellite Channels. We can Lease or Buy V-Sat and use for our network. The heavy machinery will be in the main office. A server with LINUX Operating System will be installed in the main office. The detail specification of the server along with other hardware is attached in the appendix, at the end of the report.

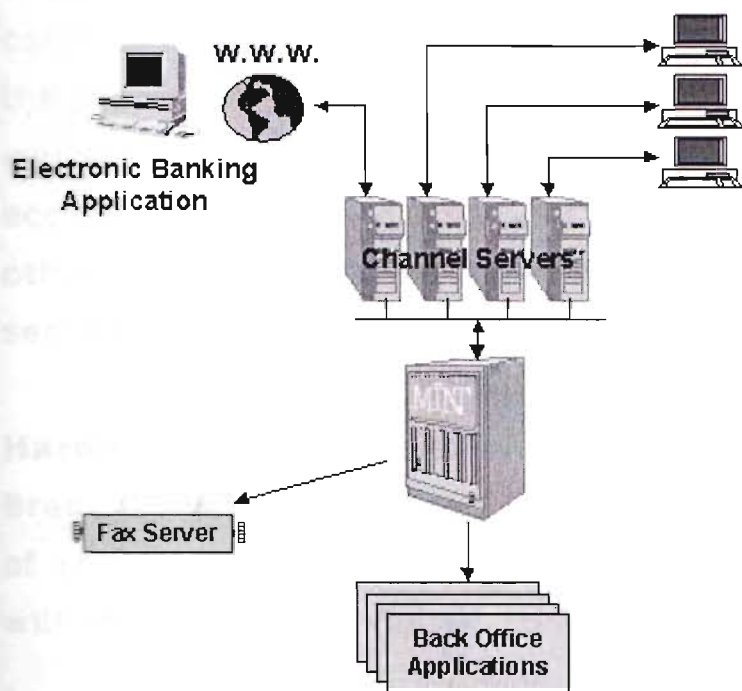


FIG: Server-Client Network



The "PC Bank" will be installed in the server in Server-Mode. 7-10 individual PC's will also be installed around the server for monitoring and supervision purpose. The server will be connected in the network with Modem and Router. The modem will be a wireless modem which will be connected to the Tower and Dish Antenna at the roof of our office. These antennas will work as data transmitter and receiver.

Hardware in ATM Outlets

Automated Teller Machines will be supplied by XEROX, a world known company for Hardware manufacturing. Each Machine will come with a 14" color monitor, Steel Plated 20 keys for operation, a CC Camera, Modem and Antenna to connect to the network and a well-secured cash box to put the money. They will also have a built-in alarm system that will automatically inform the Police station for any undue access. We will buy 10 ATM's for our first phase. Price and other expenses will be discussed in the "Financial Aspect" section

Hardware in Branches

Branches will mainly need few personal computers and a pair of router and modem for each branch. Router and modem will ensure un-interrupted connection with central office.

Office Premises

We have an empty space at 10th floor of our office building. This space can be used as Main Office for our project. The room specified for installing the server must be well



protected from Fire and Earthquake. The temperature and humidity should keep in an optimum level so that the server works at its best. Backup of power is a must. We can use either Generator or IPS as backup power source.

7.3 Marketing Aspects

Before determining the marketing strategy we have to figure out some important components of the marketing aspect. These are: marketing objective, players in the market, marketing strategy and promotional plan.

Marketing Objective

The main objective of the company is to provide Online Banking service to the clients. Currently, some banks in Bangladesh are providing some components of online banking, but a total e-banking package is still absent. We will be offering mainly four services to our clients, they are Any Branch banking, Automated Teller Machine (ATM), Credit / Debit Card Facility, Web Based Banking service. Initially we will aim at our clients in Dhaka city and later we will try to extend it all over the country.

Potential Clients

Banking scenario of Bangladesh has improved much in last few years. In addition to the traditional banking services, today's banks are developing unconventional banking products and services. Moreover Internet is becoming more and more popular in Bangladesh everyday. Even the senior citizens who are not that much interested in computers, find Internet very useful to communicate with people home and



abroad. Combination of these two gives us the signal that E-Banking is such a product that the market is ready to adopt. Almost all the corporate client in Dhaka city and more than half of the individual clients will avail this service. Hence we can consider all of our clients as our potential client.

Players in the Market

No banks in Bangladesh have complete E-banking service. A few banks have some elements of E-Banking. Our proposed package will be the first ever E-Banking solution in Bangladeshi market. In that sense, we don't have any competitors in the market. But still the banks having partial online-banking service may become our rivals in this field. The services that are available in Bangladesh are summarized in the table below

Bank	Service
HSBC	ATM. Phone Banking, Any Branch Banking
Standard Chartered bank	ATM. Phone Banking, Any Branch Banking, Credit Card
Prime Bank Ltd	Any Branch Banking, Credit Card
National Bank	Credit Card
E-Cash (Joint project of 9 Banks)	ATM
Eastern bank	Any Branch Banking (under process)
American Express	ATM, Credit Card



Marketing Strategy

Market Segmentation

Though our main target will be a corporate client in Dhaka city, we expect that a handsome amount of our individual clients will avail the facility.

Product Differentiation

At the initial level the complete E-banking package will be offered. That is the person interested to avail the facility has to buy the whole package. But later we have plans to offer customized facility.

Pricing Strategy

The clients will be charged annually for the whole package. The annual charge is set at Tl3000.00. the item wise charges are;

	Annual Fee
Any Branch banking	500
Automated Teller Machine (ATM)	500
Credit / Debit Card Facility	1500
Web Based Banking service	500
Total (Tk)	3000

Since the other banks are charging higher than us in their offering, we will have the advantage of low pricing.



7.4 Financial Aspects

Cost of the Project

The total cost of the project has been estimated at TK. 6,330,732. Including initial net working capital of TK. 667,434. The detailed estimates of fixed and working capital requirement have been giving at Annexure- II and I respectively. A summary break- up of the total cost the project and means of finance thereof has been shown below:

Particulars	Sponsor equity (Tk.)	BSB Loan (Tk.)	Total cost (Tk.)
i. Building (rental advance)	240000	-	240000
ii. Machinery and equipment	1284599 360000	3500000	4784599
iii. Furniture and fixture	68700	-	360000 68700
iv. Utilities connection	210000	-	210000
v. Preliminary expenses			
Fixed cost	2163299	3500000	5663299
vi. Working capital	67434	600000	667434
Total cost	2230733	4100000 0	6330732



Debt – Equity Ratio: 65: 35

Financial Evaluation

The profitability analysis of the project has been computed for our projected years of operation to assess the financial viability of the project. The financial projections that have been made include sales estimate, cost of goods sold, administrative expenses and financial expenses. The consolidated statement showing in the results of the projections is shown in the earning forecast at Annexure – III

Assumptions underlying the financial projections

The main assumptions on the basis of which the financial projections have been made are given below:

- a. The projected capacity of the project has been assumed to be 60%, 70%, 80% and 90% in the first four years of operation respectively.
- b. The cost of imported Machinery, and maintenance charges have been kept constant throughout the projections on the assumption that increase charges will be offset by increase in selling prices of the product.
- c. The rates of depreciation / amortization of various assets and the project are:

-	Building (rental advance)	@	20% per year
-	Machinery & Equipment	@	10% per year



- Furniture & Fixtures @ 20% per year
- Preliminary Expenses @ 20% per year

- d. Insurance premium 0.5% of the cost of all fixed assets and @ 1.0% on all stocks.
- e. Other expenses viz. Power, fuel, wages, salaries, etc. Have been charged as per the prevailing market prices.
- f. General and administrative expenses have been estimated as per the prevailing market prices.
- g. The project is proposed to be located at Motijheel. As the project is a new one, therefore, it will get the benefit of Tax holiday for 5 years. This has also been taken into account while doing the projections.

Based on the above projections, the earning forecast of the project reveals the following:

Profitability

	Year -1	Year-2	Year-3	Year-4
Capacity utilization	60%	70%	80%	90%
Sales	14,38800	21,58600	29,18200	36,57800
Gross Profit	7,71700	9,09900	10,44900	11,76600
Operating Profit	5,67100	689900	79,6300	883800
Net Profit	175200	271400	373400	476600



Ratios

Gross profit to sales (%)	17.38	17.57	17.66	17.67
Net profit to sales (%)	3.95	5.28	6.31	7.16
Return on equity (%)	32.54	27.46	23.77	20.94
Return on investment (%)	26.57	25.86	23.85	21.33

Debt Service Ratio (DSCR)

Based on the project earnings and tax holiday benefit, the project's debt servicing ability has been estimated as given below:

Break - Even Analysis

The break-even analysis has been created out on the basis of cost and sales data of 4th year projected operation. The project is expected to break- even at 32.85% of the rated capacity. The details of break-even analysis have been given at Annexure – III.

Cash Flow Statement

The projected earning forecast indicates that the projects will have comfortable fund generation at the end of each year. The project will be able to meet all its operational

expenses, repay its debt obligations, provide substantial returns to the sponsors and build a responsible reserve. The details of cash flow may be seen at Annexure – IX.

Projected Balance Sheet

The projected balance sheet of the project also shows that the project will be able to maintain a healthy liquidity position throughout the operational life. The details are given at Annexure – X

Internal Rate of Return (IRR)

The internal rate of return has been computed following the DCF technique, the details of which may be seen at Annexure – XIII. The project promises an internal rate of return of 28.65%.

Sensitivity Analysis

Sensitivity analysis of the project has been done on the basis of 5% decrease in the proposed selling price of the product, 5% increase in the market price of raw and packing materials, and dyeing and finishing charge and 5% decrease in the assumed capacity utilization. The project withstands all the sensitivity tests, a summary statement of which has been placed at Annexure – XIV.



Disbursement of loan

BSB loan of Tk. 4100000 will be disbursed as per actual requirement in the following manner:

1st installment of: Tk. 3050000 will be disbursed through L/C opening bank for importing machinery. This is subject to sponsor's deposit of Tk. 1284599 for sponsors margin import duty and other expenses on imported machinery for opening of L/C. and conformation of payment of rental advance of Tk. 240000

2nd installment of: Tk. 600000 will be disbursed for purchase of local equipment (Tk. 300000) and for bearing the cost of erection and installation of machinery and equipment (Tk. 150000).

3rd installment of: Tk. 600000 will be disbursed after the trial operation for meeting working capital required of the project

All financial transaction during the period of implementation will be transaction through a joint bank account to be operated by the main sponsor and a BSB representative.

Security of loan

BSB loan of Tk. 4100000 will be secured by:

- Personal guarantee of all the sponsoring directors.
- Mortgage / hypothecation by way of first charge on the tangible assets (machinery and equipment, etc) of the project, estimated at Tk. 4784599.

- Sponsors offering of collateral security of a residential land measuring 8.25 decimal (5 kathas) at TB Cross Road, Dhaka value declared at Tk. 500000 owned by Miss. Farhana Rashid.
- Insurance guarantee from reliance insurance limited against nonpayment of installments of BSB loan to be availed of the sponsors. The insurance guarantee should be executed as per a format provide by BSB.

7.5 Risk Analysis

The probable risk the project may face is the security. We know cyber world is a very risky place. There is hundreds of Computer Genius trying to have an unauthorized access to your system. And once a 'Hacker' can access your computer, he or she may crash your whole system. But we know there is no risk less business. Cyber thefts will always exist. Even the servers of NASA or US Federal Exchange sometimes attacked by that Computer Genius. To protect our Easy-Bank, we must adopt world class Internet Security System.

Another risk the new project may face is from the customer side. In our society, mentally we are not that ready to adopt the concept of electronic money. Still we prefer hard cash to make our day-to-day transactions. Moreover, very few of us will feel comfortable in exchanging my account information over Internet or make a fund transfer via web. Extensive promotional activity will be needed to overcome these lapses.

ANNEXURE

ANNEXURE-I

FIXED COST OF THE PROJECT

Items	Foreign Currency (Tk.)	Local Currency (Tk.)	Total cost (Tk.)
1. Land:			
Cost of land including registration	0	0	0
Cost of earth filling, drainage development and site preparation.	0	0	0
Sub Total	0	0	0
2. Buildings:			
Factory building	0	0	0
Administrative building	0	0	0
Other civil construction	0	0	0
Sub total	0	0	0
3. Machinery & equipment:			
A. Imported	3571105	178551	3749656
Main machinery cost (C&F Value) (Incl. Ex. rate fluctuation @ 5.0%)	0	37497	37497
Insurance (1.0% of C&F Value)	0	378715	378715
Import duty (10.0% of C&F Value)	0	0	0
Dev. Surcharge (0.0% of C&F Value) 0C&F Value)	0	0	0
0C&F Value)	0	168731	168731
Sub total	3571105	763494	4334599
B. Local:			
Local machinery & equipment	0	300000	300000
Others	0	0	0
Sub Total	0	300000	300000
C. Installation & equipment:	0	100000	100000
Technical service	0	50000	50000
Mechanical & Civil	0	0	0
Electrical	0	150000	150000
Sub total	0	150000	150000
4. Furniture:			
Office Furniture	0	50000	50000
b. Office Machines	0	250000	250000
Safety equipment	0	50000	50000
Miscellaneous	0	10000	10000
Sub total	0	360000	360000

5. Vehicles:			
Car/Micro bus	0	0	0
Truck/van	0	0	0
<i>Sub total</i>	0	0	0
6. Security deposit:			
Power connection	0	13700	13700
Gas connection	0	5000	5000
Other	0	5000	5000
<i>Sub total</i>	0	18700	18700
Preliminary expenses:			
Legal expenses	0	25000	25000
Consultancy fees	0	25000	25000
Trail production	0	50000	50000
Electricity/Gas connection	0	50000	50000
Rental/lease advance	0	240000	240000
Initial promotional expenses	0	100000	100000
Initial training expenses	0	0	0
Miscellaneous	0	10000	10000
<i>Sub total</i>	0	500000	500000
Total estimated fixed cost of the project	3571105	2092194	5663299

ANNEXURE – II

Estimates of working capital requirement (Amount in Taka)

Items	Tied Up Period	Year: 1	Year: 2	Year: 3	Year: 4
1. Inventories					
Imported raw materials	0 days	0	0	0	0
Imported packing materials	0 days	0	0	0	0
Local raw materials	0 days	0	0	0	0
Local packing materials	0 days	0	0	0	0
Work-in-progress	0 days	0	0	0	0
Finished goods	0 days	0	0	0	0
2. Expenses:					
Wages & salaries	3 month	1191960	1369566	1624647	1971041
Other expenses	3 month	830566	902926	979337	1059813
Accounts receivable	0 days	0	0	0	0
Gross working capital		12377540	14353342	16410217	18562129
3. Comm. bank borrowing		11710106	1360341	1555090	1756194

100% of RM & 2 month other expenses			9	2	7
Less: Account payable	0days	0	0	0	0
Working capital		667434	749922	859315	1000182
Less: Depreciation included in the value of	0 Days	0	0	0	0
Net working capital		667434	749922	859315	1000182

ANNEXURE – III

Earning Forecast (Amount in Taka)

Items	Year: 1	Year: 2	Year: 3	Year: 4
Sales revenue	443880	517860	591820	665781
Cost of good sold	00	00	61	21
Gross profit	366714	426871	487220	548122
General, Administrative and selling expenses	54	83	81	22
Operating profit	771654	909881	104489	117659
Service charge	6	7	79	00
Net profit before taxes	204560	220006	244591	292826
	0	0	7	2
	567094	689875	796306	883763
	6	7	2	7
	216641	224144	227162	234886
	3	6	8	0
	350453	465731	567143	648877
	3	1	5	7
Income tax	Tax holiday	Tax holiday	Tax holiday	Tax holiday
Net profit after taxes	350453	465731	567143	648877
Appropriation of profit @ 50.00% for purchase of Govt. bond	3	1	5	7
Net profit after purchases of Govt. bond	175226	232865	283571	324438
	7	6	7	8
Return to Govt. @ 22.00%	175226	232865	283571	324438
Net profit after return on Govt. bond	7	6	7	8
Appropriation of profit @ 20.00% for dividend	0	385499	897787	152166
Retained earning	175226	271415	373350	1
	7	4	4	476604
	350453	542815	746701	9
	140181	217133	298680	953178
	3	9	3	581287
				1

ANNEXURE – IV**Cost of good sold estimates (Amount in Taka)**

Items	Year: 1	Year: 2	Year: 3	Year: 4
Raw & packing materials	3402154	3969179	4536057	5102831
Wages & salaries	2	9	0	6
Factory rent	1189320	1425072	1684369	1969802
Stores & spares	420000	420000	420000	420000
Repair & maintenance	32535	54544	80379	110041
Carriage inward	30621	52391	78465	108842
Insurance	240000	280000	319990	359979
Water, power, fuel & lubricant	92876	98916	104955	110992
Depreciation	126100	143500	160895	178291
Manufacturing cost to unit 1	478460	478460	478460	478460
	40000	42500	44999	47499
Total manufacturing cost	3667145	4268718	4873308	5481222
	4	3	1	2
Add: Opening stock W-I-P (0 days)	0	0	0	0
Total work in progress	3667145	4268718	4873308	5481222
	4	3	1	2
Less: Closing stock of W-I-P (0days)	0	0	0	0
Total cost of good manufactured	3667145	4268718	4873308	5481222
	4	3	1	2
Add: Opening stock of FG	0	0	0	0
Total cost of good available	3667145	4268718	4873308	5481222
	4	3	1	2
Less: Closing stock of FG (0days)	0	0	0	0
Total cost of good sold	3667145	4268718	4873308	5481222
	4	3	1	2

ANNEXURE – V**Estimate of general, Administrative and selling expenses (Amount in Taka)**

Items	Year: 1	Year: 2	Year: 3	Year: 4
Administrative salaries	11946	131406	156492	19722
Office rent	00	0	6	81
Transportation	60000	60000	60000	60000
Office supplies	12000	140000	159995	17999
Postage, telephone, telegram and telex	0	42500	44999	0

Traveling	40000	85000	89999	47499
Auditor's fees	80000	85000	89999	94997
Insurance premium (guarantee)	80000	30000	30000	94997
Depreciation and write off	30000	129000	129000	30000
Promotional expenses	12900	172000	172000	12900
Miscellaneous administrative expenses	0	100000	100000	0
	17200	42500	44999	17200
	0			0
	10000			10000
	0			0
	40000			47499
Total General, Administrative and Selling expenses	2045600	2200060	2485917	2928262

ANNEXURE – V (A)

Assumptions Regarding General Administrative and Selling Expenses (Amount in Taka)

Items	Year: 1	Year: 2	Year: 3	Year: 4
Capacity utilization	60%	70%	80%	90%
1. Administrative salaries				
Salaries (100% fixed)	1086000	1086000	1194600	1422660
Increments @ 10.0%	0	108600	228060	370326
Bonus, Etc. @10.0%	108600	119460	142266	179295
Sub total	1194600	1314060	1564926	1972281
2. Office rent				
Amount estimated (100% fixed)	60000	60000	60000	60000
3. Transportation				
Amount at rated capacity	200000	200000	200000	200000
% of fixed expenses	0.0%	0.0%	0.0%	0.0%
Fixed amount	0	0	0	0
Variable amount	120000	140000	159995	179990
Sub total	120000	140000	159995	179990
4. Office supply				
Amount at rated capacity	50000	50000	50000	50000
% of fixed expenses	50.0%	50.0%	50.0%	50.0%
Fixed amount	25000	25000	25000	25000
Variable amount	15000	17500	19999	22499
Sub total	40000	42500	44999	47499
5. Postage, telephone, telegram and telex				
Amount at rated capacity	100000	100000	100000	100000
% of fixed expenses	50.0%	50.0%	50.0%	50.0%
Fixed amount	50000	50000	50000	50000
Variable amount	30000	35000	39999	44997

Variable amount				
Sub total	80000	85000	89999	94997
6. Traveling				
Amount at rated capacity	100000	100000	100000	100000
% of fixed expenses	50.0%	50.0%	50.0%	50.0%
Fixed amount	50000	50000	50000	50000
Variable amount	30000	35000	39999	44997
Sub total	80000	85000	89999	94997
7. Auditors fees				
On lump-sum basis (100% fixed)	30000	30000	30000	30000
8. Selling & sales promotion				
% of estimated sales	0.0%	0.0%	0.0%	0.0%
Amount (100% variable)	0	0	0	0
9. Depreciation and write-off				
Building @ 0.0%	0	0	0	0
Furniture and fixtures @ 20.0%	72000	72000	72000	72000
Vehicles @ 0.0%	0	0	0	0
Preliminary expenses @ 20.0%	100000	100000	100000	100000
Sub total	172000	172000	172000	172000
10. Miscellaneous Admin. Expenses				
Amount at rated capacity	50000	50000	50000	50000
b. % of fixed expenses	50.0%	50.0%	50.0%	50.0%
Fixed amount	25000	25000	25000	25000
Variable amount	15000	17500	19999	22499
Sub total	40000	42500	44999	47499
11. Premium for insurance guarantee				
@ 3% of loan amount guaranteed	129000	129000	129000	129000
12. Promotional expenses				
Per annum	100000	100000	100000	100000

ANNEXURE – VI

Estimate of Interest Expenses (Amount in Taka)

Items	Year: 1	Year: 2	Year: 3	Year: 4
Service charge on BSB loan:				
At the end of 1 st quarter	222145	201643	160643	119637
At the end of 2 nd quarter	222145	191392	150388	109386
At the end of 3 rd quarter	222145	181145	140141	99137
At the end of 4 th quarter	211898	170890	129888	88886
	878333	745070	581060	417046
Interest on working capital loan	1288080	1496376	1710567	1931814
Total	2166413	2241446	2291628	2348160

Assumption Regarding Financial Expenses

Rate of interest (simple): 18%

Principle amount: 4100000

Implementation period/month: 18 i.e. 1.50 year

Accrued interest:

Installment	Amount	Tied up period	Accrued interest
1 st Installment	3500000	14 month	734981
2 nd Installment	600000	2 month	18000
3 rd Installment	0	0 month	0
4 th Installment	0	0 month	0
Total	4100000		752981

Repayment Period/Year: 5

Grace Period/Month: 6

Mode of Repayment: Quarterly

No. of Installment: 20

Mode of Principle Repayment: Sum of digits method

ANNEXURE – VII



**Break Even Analysis
(Amount in Taka)**

Items	Fixed Cost	Variable Cost	Total Cost
Raw and packing materials	0	51028316	51028316
Wages and salaries	444000	1525802	1969802
Factory rent	420000	0	420000
Stores and spares	23922	86118	110041
Repairs and maintenance	11961	96881	108842
Carriage inwards	0	359979	359979
Insurance	56633	54359	110992
Water, power, fuel and lubricants	21700	156591	178291
Depreciation and write-off	650460	0	650460
Other manufacturing overhead	25000	22499	47499
Administrative salary	1422660	549621	1972281
Office rent	60000	0	60000
Transportation	107994	71996	179990
Office supplies	28499	18999	47498
Postage, telephone, telexes etc.	56998	37998	94996
Traveling	56998	37998	94996
Audit fees	30000	0	30000
Selling and sales promotion	0	0	0
Miscellaneous administrative overhead	28499	18999	47498
Interest expenses	417046	1931814	2348860
In come-tax	0	0	0
Total	3862372	55997970	59860341

S – V 66578121 - 55997970

a. Profit volume (P/V) Ratio: ----- = -----

$$= \frac{S}{\text{Fixed cost}} = \frac{66578121}{417046} = 15.89\%$$

b. Break even sales in taka = -----

$$= \frac{\text{Fixed cost}}{\text{P/V ratio}} = \frac{3862372}{0.1589} = 24304893$$

 = 36.51% of Utilized capacity
 i.e. 32.85% of Rated capacity

ANNEXURE – VIII

Projected Balance Sheet (Amount in Taka)

Items	CONSTN . Period	Year: 1	Year: 2	Year: 3	Year: 4
Assets:					
Current assets:					
Cash and bank balance	667434	159667	342478	604145	945271
Other current assets	0	3	4	4	9
		123775	143534	164102	185621
		40	2	17	29
Total currents assets	667434	139742	177781	224516	280148
		13	25	72	47
Other assets:					
Interest during const. Period	752981	602385	451789	301193	150596
Preliminary expenses (net)	500000	400000	300000	200000	100000
Investment in govt. Bonds	0	175226	408092	691664	101610
Fixed assets (net)	5163299	7	2	0	28
		461283	406237	351191	296145
		9	9	9	9
Total other assets	6416280	736749	889509	109297	133730
		0	0	51	83
Total assets	7083714	213417	266732	333814	413879
		04	15	23	31
Liabilities & owners equity				155509	
Liabilities:		117101	136034	02	
Accounts payable	0	06	19	911200	175619
Short term liabilities	455600	911200	911200	0	47
Long liabilities	4397381	333558	227378	121199	910800
		5	9	3	150596
Total liabilities	4852981	159568	167884	176740	186233
		92	08	95	43
Owners equity		223073	223073	223073	223073
Paid up capital	2230732	2	2	2	2
Investment in govt. bonds	0	175226	408092	691664	101610
Retained earnings	0	7	2	0	28
		140181	357315	655995	103728
		3	3	6	27
Total equities	2230732	538481	988480	157073	227645
		2	7	28	88
Total liabilities and owners equity	7083714	213417	266732	333814	413879
		04	15	23	31

ANNEXURE – IX

Financial Ratio (Amount in Taka)

Items	Year: 1	Year: 2	Year: 3	Year: 4
Gross profit to sales	17.38%	17.57%	17.66%	17.67%
Net profit after taxes to sales	3.95%	5.24%	6.31%	7.16%
Return on equity	32.54%	27.46%	23.77%	20.94%
Return on investment	26.57%	25.86%	23.85%	21.35%
Profit to total assets	8.21%	10.18%	11.18%	11.52%
Debt –equity ratio	45: 55	25:75	12:88	05:95
Current ratio (times)	1.11	1.22	1.36	1.52
Fixed assets coverage (times) (Net fixed assets: total debt.)	0.29	0.24	0.20	0.16
Debt-service coverage (times)	3.77	3.65	4.63	5.69

Calculation of Debt Service Coverage Ratio (Amount in Taka)

Items	Year: 1	Year: 2	Year: 3	Year: 4
Income				
Pretax profit	35045 33	46573 11	567143 5	64887 77
Add: Depreciation and write-off	65046	65046	650460	65046
Service charge	0 87833 3	0 74507 0	581060	0 41704 6
Sub total	50333 26	60528 41	690295 5	75562 83
Debt obligation				
Principle payment	45560	91120	911200	91200
Service charge	0 87833 3	0 74507 0	581060	41704 6
Sub total	13339 33	16562 70	149226 0	13282 46

ANNEXURE – X

Loan Repayment Schedule (Amount in Taka)

Interest	Principal Due At The End Of Installment	Repayment Of Principal	Service Charge	Total
0	4100000	0	0	0
1	4100000	0	222145	222145
2	4100000	0	222145	222145
3	4100000	227800	222145	449945
4	3872200	227800	211898	439698
5	3644400	227800	201643	429443
6	3416600	227800	191392	419192
7	3188800	227800	181145	408945
8	2961000	227800	170890	398690
9	2733200	227800	160643	388443
10	2505400	227800	150388	378188
11	2277600	227800	140141	367941
12	2049800	227800	129888	357688
13	1822000	227800	119637	347437
14	1594200	227800	109386	337186
15	1366400	227800	99137	326937
16	1138600	227800	88886	316686
17	910800	227800	78635	306435
18	683000	227800	68384	296184
19	455200	227800	58133	285933
20	227400	227400	47882	275282
Total		4100000	2874544	6974544

ANNEXURE – XI

Discounted Cash Flow Statement (Amount in Taka)

Year	Capital outlay	Pretax profit	Non cash expenses	Service charge	Income tax (50%)	Net operating inflow
0	5663299	0	0	0	0	(5663299)
1	2328566	3504533	650460	878333	0	2704761
2	2105015	4657311	650460	745070	0	3947826
3	2131919	5671435	650460	581060	0	4771036
4	2163393	6488777	650460	417046	0	5392890
5	0	6488777	650460	253034	0	7392271

6	0	6488777	478460	0	324438	3722848
7	0	6488777	478460	0	8	3722848
8	0	6488777	478460	0	324438	3722848
9	0	6488777	478460	0	8	3722848
10	0	6488777	478460	0	324438	22303676
					8	
					324438	
					8	
					324438	
					8	

@ NPV 0.69 (20329)

@ NPV 0.68 37598

Internal rate of return = 66.65%

Note:

Salvage value of fixed assets and inventory
Has been included in the last year's cash inflow.

Tax holiday has been considered for 5 years

List of Furniture and Fixture

Sl. No.	Description	Quantity	Cost/T k.
1	Air conditioner (capacity 1.5 ton) (Origin U.S.A)	1	45000
2	Fax machine (With I.S.D connection, etc.) (Origin	1	130000
3	South Korea)	1	25000
4	Electric typewriter (Origin South Korea)	-	50000
	Furniture and fixtures (local)		
Total			250000

Feasibility Study on E-Banking

Bus 498: Project work

Submitted to

M Sayeed Alam

Project supervisor

Submitted by

Md. Tuhinur Alam

2002-3-10-007

East West University

August 10, 2006