Finance and Banking

Classes Nine and Ten



National Curriculum and Textbook Board, Bangladesh

Prescribed by the National Curriculum and Textbook Board as a textbook for classes nine and ten from the academic year 2013

Finance and Banking

Classes Nine and Ten

Revised for the year 2026

NATIONAL CURRICULUM AND TEXTBOOK BOARD, BANGLADESH

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Preface

The importance of formal education is diversified. The prime goal of modern education is not to impart knowledge only but to build a prosperous nation by developing skilled human resources. At the same time, education is the best means of developing a society free from superstitions and adheres to science and facts. To stand as a developed nation in the science and technology-driven world of the 21st century, we need to ensure quality education. A well-planned education is essential for enabling our new generation to face the challenges of the age and to motivate them with the strength of patriotism, values, and ethics. In this context, the government is determined to ensure education as per the demand of the age.

Education is the backbone of a nation and a curriculum provides the essence of formal education. Again, the most important tool for implementing a curriculum is the textbook. The National Curriculum 2012 has been adopted to achieve the goals of the National Education Policy 2010. In light of this, the National Curriculum and Textbook Board (NCTB) has been persistently working on developing, printing, and distributing quality textbooks. This organization also reviews and revises the curriculum, textbook, and assessment methods according to needs and realities.

Secondary education is a vital stage in our education system. This textbook is catered to the age, aptitude, and endless inquisitiveness of the students at this level, as well as to achieve the aims and objectives of the curriculum. It is believed that the book written and meticulously edited by experienced and skilled teachers and experts will be conducive to a joyful experience for the students. It is hoped that the book will play a significant role in promoting creative and aesthetic spirits among students along with subject knowledge and skills.

Students of this century are facing a constantly changing world due to the outstanding development of science and technology. At this time, the business model, financing and banking activities are changing, and people's attitude towards these is changing also. In this new context, as per the guidelines of National Education Policy 2010, **Finance and Banking** has been included in the curriculum and the textbook has been written for class IX and X accordingly.

It may be mentioned here that due to the changing situation in 2024 and as per the needs the textbook has been reviewed and revised for the academic year 2026. It is mentionable here that the last version of the textbook developed according to the curriculum 2012 has been taken as the basis. Meticulous attention has been paid to the textbook to make it more learner-friendly and error-free. However, any suggestions for further improvement of this book will be appreciated.

Finally, I would like to thank all of those who have contributed to the book as writers, editors, reviewers, illustrators and graphic designers.

October, 2025

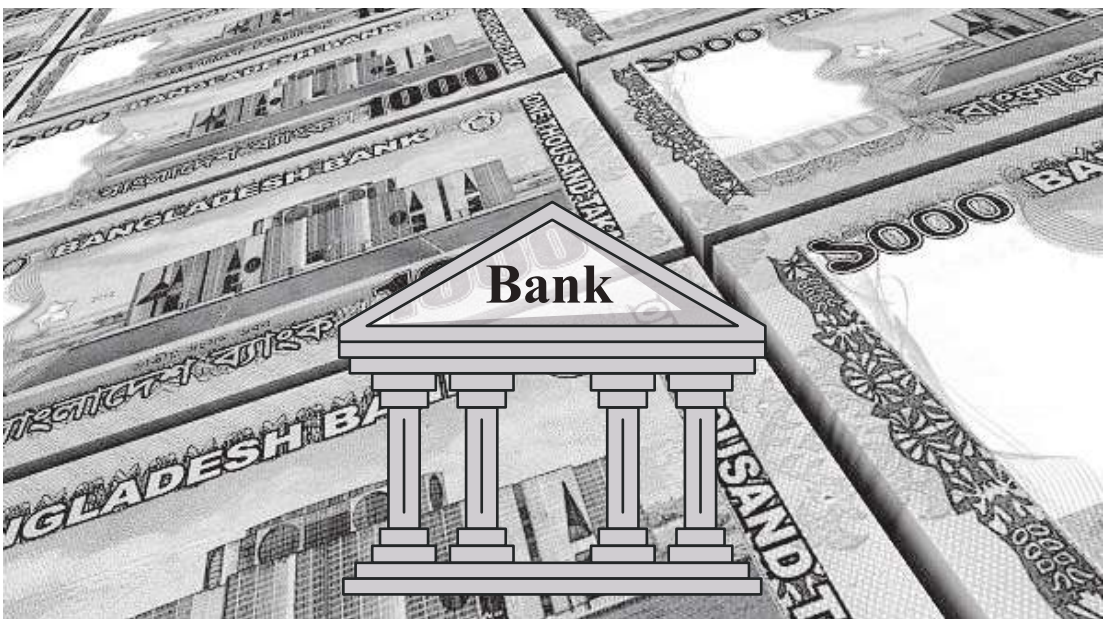
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Contents

Chapter	Title	Pages
One	Finance and Business Finance	1–17
Two	Sources of Finance	18–32
Three	Share, Bond and Debenture	33–44
Four	Time Value of Money	45–54
Five	Risk and Uncertainty	55–64
Six	Capital Budgeting	65–79
Seven	Cost of Capital	80–91
Eight	Currency, Bank and Banking	92–99
Nine	Banking Business and Types	100–110
Ten	Commercial Banks	111–119
Eleven	Bank Deposit	120–131
Twelve	Bank and Client	132–137
Thirteen	Central Bank	138–148

Chapter One
Finance and Business Finance

With the gradual progress of society & civilization and the development of science and technology, the scope of trade and commerce has also been increased. Hence, the product-market has to cope with diverse competitions. To make profit in this competition, a businessman has to utilize his capital efficiently through proper planning. This is how, a business firm can maximize its profit. For that purpose, every business firm collects its necessary fund for investment from the most desirable sources, and invests it in the most suitable project by analyzing various information of the product-market. This creates inflows and outflows of fund in the business. Financial management helps a businessman to earn enough profit from investing even a small amount of capital. Nowadays finance is used as the main driving force of business.



After reading this chapter, we shall be able to-

- explain the concept of Finance;
- describe the evolution of Finance;
- analyze the classification of Finance;
- explain the importance of Finance;
- explain the principles of Finance;
- describe the functions of a Financial Manager.

1.1 Concept of Finance

Finance deals with fund management. Finance prepares plans and implements necessary activities about what amount of fund should be collected from which sources and where & how this fund is to be invested for highest profit in the project. In case of a business firm, fund flows in the business from selling of products. Different types of funds are needed to produce and buy goods for the business, such as purchasing machinery, purchasing raw materials, paying wages to the labours, etc. These are the utilization of fund. Funds need to be collected in a planned way as per the requirement to maintain an uninterrupted production process. Finance means this process related to fund collection and utilization.

If you visit a tailoring shop in your locality, you will see there one or two persons sewing with a machine. Again, someone may be cutting cloths or stitching the buttons. So to continue the tailoring business properly, the shop owner has to purchase sewing machines, threads, buttons, scissors etc. of necessary amount. At the beginning of his business, he bears these expenses from his own saving. If the fund appears insufficient, he may take loan from his relatives to overcome the shortage. When the business is in operation, at the end of every month he needs to bear expenses for the payment of workers' wages, house rent, electricity bill etc. and he pays all these with the money earned by sewing clothes. He also has to plan to pay back the loan money from this monthly collection. An owner of a tailoring shop always expects that he can earn some amount of profit even after meeting all necessary expenditures from the income of the business, by which he can save for the future or can utilize for business expansion even after meeting regular expenses of his family. So if an owner of a tailoring shop runs business through proper planning regarding the source of finance and its utilization, only then he can earn profit. Otherwise it will be found that due to cash crisis sewing thread cannot be bought timely and so the customers are going back. Again, it may be needed to shut down the business due to lack of money to buy a new machine replacing the old one. To conduct the business properly, when, why and how much fund is needed and from which sources that fund should be collected are discused in business finance.

There is implication of finance in family too. Generally, every family has one or more than one sources of finance. Income may be obtained from different sources in different families, such as from service, business, agricultural

activities, self-employment etc. Besides these, regular expenditure of a family occurs for daily shopping costs, house rent, school fees, different bills payment etc. As expenditure should be matched with income, in this way, proper time of expenditure should also be maintained. If money is insufficient as per demand, then as an example, it may happen that school tuition fees will be due, as a result it may be fined. In case of a family, pre-planned identification of the sources of fund and its utilization is the financial process. Other than daily expenditure of this type, sometimes occasional expenditure may be required in the family. If it is not possible to collect money from regular income sources for such expenditures like buying a new television or refrigerator, then the shortage may be fulfilled through long term loan. In that case, a loan repayment plan needs to be prepared. As a result, the concept of finance helps to determine the sources of fund in a planned way and it is proper management for smooth operation of the family.

Financial process can be understood from the perspective of a school also. School is a social organization and its main objective is not earning profit. There is also a plan of income- expenditure and fund management. Educational institutions generally collect fund from sources of their students' tuition fees, examination fees, admission fees etc. The institution has to meet different expenditures with this fund to run the academic activities properly. These can be payment of teacher-staffs salary, house rent, electricity bill, different types of renovation expenses, purchasing computer and furniture. So, ensuring fund management for performing various working processes of the institution nicely by considering different sources of fund and different sectors of utilization is financing in the perspective of the school.

Among above examples, tailoring shop is a profit making organization, but family and school are non-profit organizations. Our present topic is involved mainly in financing of profit-making or business organizations. What kind of financial process does a grocery shop have? The shop owner earns profit by selling products. But for the purpose of selling, on regular basis he needs to complete the activities of purchasing products, paying rent, electricity bill, wages of the workers, etc. as current expenditures. Moreover, sometimes he has to spend a large amount of money for purposes like expansion of business for the need of the customers, purchasing a refrigerator etc. These are his fixed expenditure. Thus a grocer requires to invest both in fixed and current assets. If income

from selling is not sufficient for collecting fund for investment, he has to collect fund from other sources like own fund, friends-relatives, purchase on credit etc. Again, he may collect large amount of money which he needs to invest in fixed assets usually from commercial banks. In such financing, as there is the opportunity of repaying in long schedule of time, the risk of loan repayment is reduced a bit. In the case of a grocery shop, main activities of business finance are fund management through proper utilization of money received from sales proceeds in meeting current expenditures, some long term investments, collection of money from less risky sources, timely repayment of loan installments etc.

Square Pharmaceuticals, Bata Company, Kohinoor Chemicals - these are large size business organizations which are called companies. Financial process of such a company is not so simple like grocery shop or tailoring shop rather it is comparatively complex. In fund collection, a large company gets more benefit than a small organization. For example, a company collects capital by selling shares in the share market. Company's goodwill, rate of profit, customer services or consumers' satisfaction help to increase the share price in share market. Business finance deals with and provides guidance regarding when and how much of a source among different sources should be used to collect fund and in which sectors, how much of it and how it will be invested to increase the profit.

Group Activity: Prepare a list mentioning the sources of income and the expenditure items of a family.

1.2 Evolution of Finance

After the Industrial Revolution of 17th century, production technique becomes more complex and the production process attains its excellence through specialized and divided processes. To sustain in the market competition, finance related concept and its use become essential. With the expansion of Accounting in 18th century, Finance was involved mainly in the evaluation and analysis of the financial statements. With the development of the classical trend of micro economics, finance was also involved in the own and specialized economics of the business at the end of 19th century. The trends of this financial evolution give us the meaningful idea about the nature and scope of finance. Traditionally, financial managers' main responsibilities were accounts maintenance and making a future plan of action by analyzing it. Besides, report preparation to reflect actual condition of the business and liquid fund management to build

business capacity of payment of the dues in right time are also added with the evolutionary process of finance. But with the expansion of civilization, the expansion of organizations and technological development have changed the responsibilities of financial managers. The evolution of finance that happened in the last century in the USA, the main exercising field of finance, is later known as the trend of Evolution of Finance throughout the whole world. According to that, the stages of financial evolution can be presented in the following way:

a. Pre-1930 Decade: This time a trend of unification began among the companies of the USA. Financial managers had to identify a framework about unification of several companies, by examining the financial statements of the companies. They took the responsibility of huge amount of financing and preparing financial statements for this unification.

b. 1930's Decade: Tendency of unification did not get much success in the USA. Many of the companies unified in the past decade turned into bankrupt in the next decade. Moreover, high depression started in the USA. Many profitable companies also fell into a great loss. At that situation, how these loosing companies can be reorganized to protect them from bankruptcy was a special responsibility of the financial managers. From that time, fund collection through share selling started.

c. 1940's Decade: Necessity of liquidity was the main concentration at that time. Finance did that responsibility by ensuring well-planned cash flow with making a budget of cash flow.

d. 1950's Decade: In this decade, finance was involved in evaluating the most suitable investment project by using different mathematical analyses. Main activity of finance then turned to profit maximization by increasing sales and decreasing expenditures through suitable long term investments based on long action forecasting. This trend is considered as the traditional trend of finance.

e. 1960's Decade: Modern finance started its journey from this time. Finance started giving priority on capital market. Shareholders are the owners of a company, so maximization of the shareholders' property or the market price of shares became the main objective of finance of this time. To achieve this objective, different activities relating to financial analysis started. Concept of

risk in finance makes us understand that risk increases with the increase of profit. So profit increase may not be desirable all the time.

f. 1970's Decade: Era of computerized activities started in this decade. This not only changed the production techniques but also brought changes in business finance. Finance is now Mathematics-based. Most of the financial decisions are mainly based on complex mathematical calculations, and the tendency of making these calculations very effectively in computer got special popularity.

For example, the concept of risk is now measured and managed more correctly. Traditional trends of capital structure are also more complex and mathematical. Among the scholars who deserve mentioning for enriching business finance with different theoretical analysis were Harry Markoiz, Murton Miller, Modigliani. After that, in 1990's these scholars got Nobel Prize as the reward of their contribution to the development of finance through mathematical analysis.

g. 1980's Decade: For expansion of business and sustaining in the competitive market system, finance evolves in a new outlook by changing its previous roles. Efficient distribution of capital among alternative projects of the company and calculation & analysis of income of these projects were the main activity of finance.

h. 1990's Decade and Beginning of Modern Finance: World Trade Organization revealed itself in this decade. Barriers of export and import started to decrease worldwide. This time finance achieved internationality. In one hand, investment decision of finance considers the location in the world production and selling of a product could achieve profit; on the other hand, the scope of finance also includes the consideration regarding the nature of capital market of the world and the sources of fund collection will be profitable. As a result, finance is an applied field of solution in the financial management of a business organization which has developed in combination with accountancy, economics and some other financial subjects.

Group Presentation: Make a comparative analysis between the process of activities of managers of the day and those of previous time.

1.3 Classification of Finance

Financial process is as important for a business organization as it is for a non-profit organization. Every organization is involved with a financial process.

Financial process takes different forms for different organizations. Now we will discuss classification of this finance.

a. Family Finance

In family finance, the sources and amount of income of the family are identified and how this income can be utilized for the overall welfare of the family members is determined. Among innumerous necessary expenditures, the most important expenditures are fulfilled on priority basis. If family income is not sufficient, loan can be taken from the relatives, well known persons or friends. Regular expenditures are determined by considering the regular income. Bank loans can be arranged for fixed assets like television, freeze, car, building construction etc. But, as the collected fund is limited, it needs proper utilization. If the collected money is in excess, remaining amount can be saved for future use.

b. Public Finance

Every government has its own financial management. In the case of a government, the probable areas of yearly expenditures are determined and the sources of collecting money are discussed in public finance. Government has to spend a lot of money for overall development of the country in various sectors such as roads, bridge, government educational institutions, government hospital, law and order, defence, social infrastructure etc. Government collects money to bear these expenses from different sources like income tax, vat, gift tax, import custom, export custom, saving certificates, prize bond, treasury bill etc. In public finance, the amount of expenditure is determined first and then fund is collected according to the needs. The main objective of public finance is social welfare. Public finance is usually non-profitable. Expenditure may be greater than income in public finance. There exists a number of business organizations under government ownership, which may be less profitable also, for example: Chemical Industries under BCIC (Bangladesh Chemical Industries Corporation). Again, large amount of money is required for big projects like massive Bridges, Flyovers, etc. If total amount of money is to be collected from government budget, on many occasions financial crisis may occur to the government due to

public expenditure for social and state security. For that reason, sometimes the government collects foreign loan from organizations like ADB (Asian Development Bank), World Bank, IDB (Islamic Development Bank) etc.

c. International Finance

In international finance, export and import sectors are discussed and analyzed. Bangladesh is mainly an import-oriented country. Every year huge amount of foodstuff, raw materials, machinery, medicine, petroleum etc. are imported from different countries. On the other hand, jute and jute products, readymade garments, agricultural products etc. are being exported. Trade deficiency of large amount occurs as the volume of import is greater than the volume of export. Remittance, sent by the wage earners, plays a vital role to compensate this deficiency. International finance covers discussion on export and import sectors and the way of management to compensate the trade deficiency.

Individual Activity: The teacher will arrange an open discussion class on the topic "Steps necessary to raise foreign currency reserve" and give a homework on it for the next class.

d. Finance of Non-Profit Organization

In our society there are some institutions or organizations which are involved in the welfare of mankind, or providing services for the poor and distressed people. To run this type of business, money or products or services similar to money is required and it is necessary to utilize that money efficiently. In this connection, the role that finance plays is identification of the sources of finance or wealth similar to money and ensuring its proper utilization for the purpose of achieving the service-oriented objectives. For example, it could be mentioned: an orphanage is not a profit making institution, but it also needs money. These types of institutions collect money through different grants. This collected money is spent in various development activities for the orphans. So source identification and proper utilization of fund to achieve its goal are the main objective of finance of non-profit organization.

e. Business Finance

The most important type of finance is business finance. An organization formed with the purpose of earning profit through the risk of profit and loss is called a business organization. So, business finance is the process used to collect fund and invest it for business purposes. Business organizations are classified into three types:

Sole Proprietorship Business, Partnership Business and Joint Capital Business organizations. General features of finance of these three types of organizations are fund collection and fund management. For fund collection, own capital and loan are used as sources. Business finance is the main object of this lesson.

The most famous business organizations in Bangladesh are small enterprise which are usually formed as sole proprietorship business and partnership business. Varieties of small and cottage industries, hotel & restaurant business, grocery shop, saloon, boutique shop etc. are of these kinds of business. In sole proprietorship business, if profit is earned, the owner enjoys it alone and if any loss occurs the owner's personal properties are also used to repair the loss.

In partnership business, the risk is distributed among all partners, and so the partners are to be prepared to use personal properties to bear the loss in business. In these types of businesses - sole proprietorship or partnership - sources of finance are owner's own capital, profit, loan from relatives, loan arranged on interest from bank or village money lenders. So, earning profit from investing one's own fund by proper utilization of money is the main objective of these types of business organizations.

The financial process of a joint stock company is different. Government approval is required to form such a company. Before giving approval, the government evaluates and analyses the minimum amount of capital, directors' identity, business objectives and various documents. After getting approval, a company divides its expected big amount of total capital into small portions of equal amount and sells these as shares in the share market. For example, 1 lac shares of 1000 taka may be sold to the public when the business has a capital of 100 million taka. As each share costs only 1000 taka, small investors of remote places of the country also can purchase shares. Shareholders are the owners of the company and if the company is profitable, they usually get dividend on a regular basis. Shareholders can convert their shares into cash by selling those in the share market like Dhaka Stock Exchange.

Other than shares, a joint stock business can raise fund by taking loans from the public through selling bonds and debentures to them. In that case, the company has to pay interest on regular basis at certain rate to the debenture holders. Because, they are not the owners of the company like the shareholders.

Group Activity: Through learning the examples of this text book, students will prepare a list of comparison among the financial process of non-profit organizations, business organizations and government organizations.

f. Bank and Financial Institution

In any country, economic activities usually revolve centering the banks and financial institutions. Sonali Bank, Janata Bank, Rupali Bank, Prime Bank, Shahjalal Islami Bank - this type of government and private banks are profit-oriented business organizations but their financial process is slightly different from general business organizations. These banks collect small amounts of fund from the people, create deposit for different terms with this fund and provides fixed rate of interest to the depositors. Again, banks provide loans to the entrepreneurs in different businesses from this fund. Loans can also be taken for personal purposes. Banks impose interest at certain rate against these loans. But the rate at which a bank receives interest on granted loan is greater than the rate of interest the bank pays to the depositors. The difference of these two rates of interest is the profit of banks. In the chapter of banking part, we will learn in details about these institutions. Beside commercial banks, some financial organizations also play an important role in country's economic activities. In Bangladesh context, some examples of these types of organizations are Investment Corporation of Bangladesh (ICB), Bangladesh House Building Finance Corporation, Bangladesh Agricultural Bank etc. These financial institutions play their own special roles in the development of different sectors of the economy of Bangladesh.

1.4 Importance of Business Finance

In the present competitive open market economy, every government, non-government and international business institution has to finance with great importance in a pre planned way. Through the use of a well-thought and effective financial management, the risks of the institutions are reduced and profits are increased. The following things make financial management more meaningful:

a. Capital Crisis of Business

Finance related ideas bear special importance in the situation of Bangladesh. As Bangladesh is a developing country, financial crisis is a regular issue for the

business organizations. Due to this crisis, running business smoothly has become very challenging. For example, a business organization needs to purchase raw materials, if it cannot purchase raw materials timely due to the financial crisis, the production process of the organization may be hampered. Finance related ideas help a business entrepreneur collect necessary amount of fund at the right time and utilize it properly in a planned way.

b. Backward Banking System

Besides, as our financial organizations are not well-organized like that of the advanced countries, loan cannot be arranged within expected time after application. Sometimes, loan cannot be arranged as required due to insufficiency of property to be pledged as security for sanctioning the loan. So, to overcome this problem, business people have to collect fund at right time in a very well-planned way and also need profitable utilization of the fund with a right investment decision. Proper financial plan and management help him predict this type of problem and give idea about the process of overcoming such situation.

c. Less Educated Entrepreneur

The majority of the entrepreneurs in Bangladesh are less educated and are not able to conduct financial activities through a long term plan. So, many profitable business organizations cannot operate smoothly due to the financial crisis arisen from improper financial planning and at the end it faces loss instead of profit. But the only reason of this loss is financial mismanagement. If a businessman has sufficient knowledge about financial management, he can easily collect necessary amount of fund at the right time from a less expensive source and can earn enough profit by running his business through investing it in a suitable project.

d. Production-Oriented Investment and National Income

A successful investment plays a direct role to increase national income. By applying financial knowledge, a business person can choose the most profitable project from the alternatives by doing a cost-benefit analysis of the projects under consideration. This type of profitable investment is as much meaningful for the business as it is important also for the economic development of the whole country.

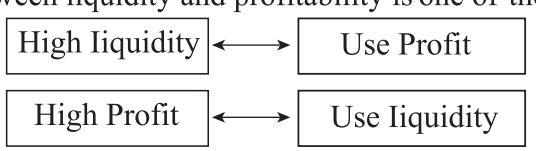
Group Activity: Explain the importance of finance to increase profit by reducing risk in business.

1.5 Principle of Business Finance

Business finance management means fund collection as per requirement, investment of this fund in short and long terms and the management of fund distribution. This management process follows some principles which are given below:

a. Liquidity vs. Profitability Principle

A grocer may keep all the cash money (liquid property) earned from daily sales for the purpose of buying raw materials and other related expenses, or he may keep with him some portion of this cash for buying raw materials and deposit the remaining amount in a bank account from which it is possible to get some amount of interest/ profit after a certain period. In this situation, the grocer has to decide how much of the earned cash should be retained with him to meet the current needs. If the grocer keeps large amount of cash with him to meet the daily expenses, income from bank will be decreased. Again, if a large amount of cash is deposited in bank, the business may fall in financial crisis which may hamper the daily activities. So, business people have to perform financial management in such a way that can create balance between liquidity and investment. It means, business people need cash reserve to bear the daily expenses on one side, on other side cash should be invested for making profit too. There is an inverse relationship between cash and liquidity. Huge cash decreases profitability, and again excess investment for the purpose of high profit causes cash crisis. To maintain a balance between liquidity and profitability is one of the principles of finance.



b. Competence Principle

Acquiring current capital by short term fund and fixed capital by long term fund is a principle of finance. Current capital is that money which is required to run the daily expenses of a business, like raw materials purchase, payment of labourer's wages etc. On the other hand, machinery purchase, building construction for the business etc. need capital. As the amount of current capital is small. It should be collected from the short term source of finance. Types of sources like commercial banks, different financial institutions, investment banks, debenture holders provide long term loans. On the other hand, current capital should be managed from regular sales proceeds. High rate of interest has to be given to the loan providing institutions for collecting loan from the long term sources. So, if loan is collected from long term sources to bear the current expenses, then it appears that repayment of interest from the earned income becomes impossible.

c. Diversification of Business and Risk Distribution Principle


Picture : Diversification of goods

In the case of fund investment, if business products or services are as much as possible diversified, the risk is distributed and reduced. Every business organization tries to earn profit centering an uncertain future. So business has to face a lot of risks. These risks are created for many reasons, such as changes of economic, political or social scenario, arrival of new products in the market, natural calamity, sudden accident etc. It is not possible for the managers to control these uncertain situations or take preparations for them. But through following the principle of risk distribution, profit is possible to earn in this uncertain market. If a business person does business only for a single product, profit earning becomes very risky. On the other hand, if the products of the business are different and diversified, the risk is distributed. It means, in any situation, if selling of a single product decreases, the decreased profit can be compensated by the profit earned from the other products; and as a result, expected profit can be achieved in any situation. If a grocer sells both the Halal soap and the traditional soap, then customers of both kinds will come to his shop. If the grocer keeps only general or the traditional soaps, the customers of Halal soap will go to another shop to buy Halal soap and the total sales of the grocer will be decreased. Sales of some products rise or fall due to the differences of weather or season also. For example, demand of winter wears increases only in winter season. So, the sale of winter wears increases in that season. If a dress seller seils both summer and winter wears in his shop, then his profit earning will not be hampered for rise and fall of demand of the products in different seasons. If in a book stall only poetry book is sold and if in another shop poetry book, story book, religious book and different instructive book are sold, then it appears that maximum customers will prefer the second stall. Because they can purchase different types of necessary books from a single shop at a time. This principle of risk distribution through diversification can be applied in fund collection. In the case of fund collection, priority is given on fund collection from different sources.

Group Activity: Explain the principles which should be followed in business finance.

1.6 Functions of Financial Manager

Financial manager deals with two types of decisions:

1. **Income Decision or Financing Decision**
2. **Expenditure Decision or Investment Decision**

Income Decision or Financing Decision

Income decision means mainly the process of fund collection. The scope of this decision covers selection of the alternative sources of fund and taking financial plans by analyzing the advantages and disadvantages of these sources. Generally, fund is collected from short term sources to bear the current expenses, and fund is collected from long term sources to bear the fixed expenses. For the purpose of fund collection, it is collected through own capital and arranging loan from different sources. Besides, large companies may gather capital through selling shares. Shareholders are the real owners of a company. The portion of capital which an organization collects through loan increases the liability of the organization. Again ownership right is established on the basis of the amount of capital collected through the owners' fund. Thus, an institution becomes successful to create a balance between the liability of loan and the rights of the owners through a right finance decision.

Expenditure Decision or Investment Decision /Capital budgeting

Machine purchasing decision is an investment decision for a tailoring shop. In case of a grocery shop, decision for furniture purchasing or refrigerator purchasing is an investment decision. For a manufacturer organization, manufacturing machineries purchase or factory construction is also this type of decision. Through this decision a plan of inflow and outflow of expected money has to be made. For example, a production organization decides to buy machines only when the selling of the machine-made products are greater than before, if thus profit and cash flow are increased and if the total cash flow is greater than the purchase price of the machine.

That means if it seems that the machine can be utilized for 10 years, then for the purpose of investment decision, comparison has to be made with 10 years inflow of fund from sale proceeds and the purchase price of the machine. So, it is possible to find out cash flow from next 10 years selling only by considering the product price in next 10 years and the volume of sales. Production and other expenses are deducted from the sale proceeds to measure the profit from the cash flow.

The investment decision is very tough for an organization because to measure the amount of selling in future and determining selling price is a very difficult task.

Other Decisions

Above two decisions are the most important for the financial managers. Besides, financial managers have to take some other decisions, such as:

a) Purchase of how much amount of raw materials is suitable and from which sources this fund can be collected – this type of decision is called current investment decision.
b) How much amount of cash reserve should be kept for daily expenses is another important decision too.
c) Dues payment for the sources of fund is another decision.

If fund is collected through bank loan and other loans like bond, debenture etc., then payment of certain amount of interest at the right time is an important responsibility for the financial manager. In the same way, if fund is collected through selling of shares, then earning profit at the expected rate and distributing dividend are other important things to be considered by the financial manager.

Open Discussion: Finance and investment – which one is the most important decision of the two?

Sample Questions

Multiple Choice Questions

1. What is the relationship between liquidity and profitability

A. Upward
B. Downward
C. Opposite
D. Proportional

2. Short term assets management decision for a financial Manager -

i. Finance for purchasing raw material
ii. Taking descision of purchasing furniture
iii. Collecting of fund issuing bond

Which one of the following is correct?

A. i and ii
B. i and iii
C. ii and iii
D. i, ii and iii

Read the stem and answer the Questions no. 3 and 4:

Mr. Sultana started a book business at Andarkella in Chattogram with the money saved by his father. He sells various types of story books, poetry books, children's books, paper and pens and other valuables in addition to textbooks. Currently, due to the popularity of the business, he is expanding the size of the shop and borrowed some money from Probani Bank for 7 years and pays the interest from internal funds.

3. What type of financing is Mr. Sultana involved in?

a. Government b.Family

c. Business d. International

4. Sultana has followed the financing–

i. Principle of Appropriateness

ii. Principle of diversification and risk distribution

iii. Principle of liquidity and profitability

Which of the following is correct

a.i and ii b. i and iii

c. ii and iii d. i,ii and iii

Creative Questions

1. Mr. Sohan took a loan of 7 lakh taka from Moon Bank for 5 years at 11% interest to meet his cash requirements. From borrowed amount, he spent 4 lakh taka to purchase machinery and 2 lakh taka for the purchase of raw materials, electricity expenses, and employee wages. The remaining amount he kept as a cash reserve.

a. What is trade deficit?

b. How does a bank function as a source of financing? Explain.

c. Which of Mr. Sohan's actions is related to expenditure decision? Explain.

d. Evaluate Mr. Sohan's activities in the light of the principles of business financing.

2.

	Firm A	Firm B
Product -	Mini Pack Shampoo	Bottled Shampoo, Mini Pack Shampoo , Herbal Shampoo
He who enjoys Profit/Loss -	Only the Owner	Distributed among all Owners

a. What is family finance?
b. Why does the government spend a lot of money for a country? Explain.
c. How can institution "A" collect fund? Explain.
d. Between the two institutions mentioned above, which one has less risk? Analyze considering principles of finance.

Short Questions

1. What do you mean by business finance?
2. Give the concept of liquidity versus profitability.
3. State the main objectives of government financing.
4. Explain how risk can be reduced through diversification.
5. Explain the financing process of your family.

Chapter Two
Sources of Finance

Finance means fund collection, its management and distribution. In this chapter, we will learn about the concept of the sources of finance for doing the fund collection activity efficiently. Different sources of finance have different features. For these different features, fund should be collected from different sources suitable for different situations of the business. For example, to purchase a fixed asset fund should be collected through share selling. Again, to meet the daily needs such as, raw materials purchase, credit purchasing can be used or short term bank loan can be utilized.



After reading this chapter we shall be able to –

- identify the sources of finance.
- analyse the classification of sources of finance.
- describe the advantages and disadvantages of different term finances.
- identify the sources of short term finance.
- identify the sources of mid-term finance.
- identify the sources of long term finance.

2.0 Introduction

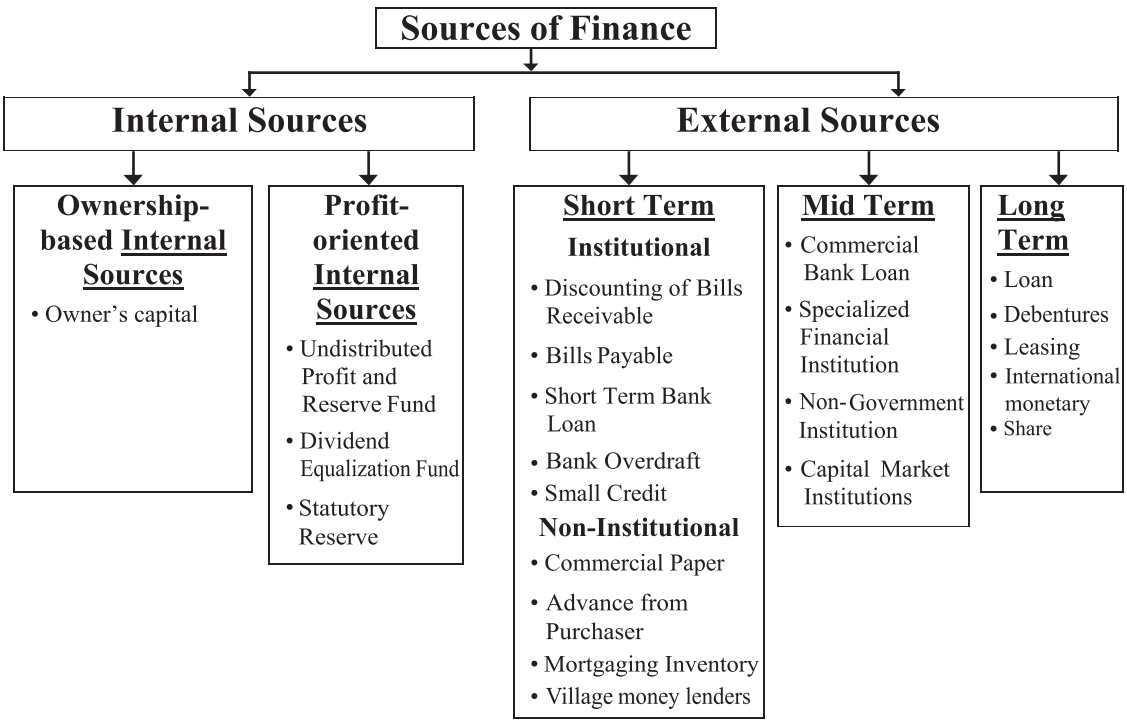
Selecting the sources of the fund which is required to start any business organization or to conduct the daily activities of business is an important decision of finance management. Because different sources have different costs of capital and the sources of different terms have different advantages and disadvantages. An institution collects fund by analyzing different sources to select that mixture of sources which will provide maximum benefit and minimum cost. Main objective of investment is profit earning. It is to be mentioned that when the total sales income of a business firm is higher than the total operating expenditure, it is generally called gross profit. We can get net profit by subtracting the cost of capital and tax from gross profit. So, the cost of capital should be minimum to maximize the profit of the business.

2.1 Concept of the different sources of finance

Business finance means supplying fund required for running a business. Mr. Rahman is the owner of a tailoring shop. He purchased some machines at the beginning of the business. Generally, a business person tries to collect fund from his own savings for the purpose of machines purchase related fixed investment. Because he can use this money for any duration. But if he sees after calculations that his own savings is not sufficient to purchase the machines, he can collect fund through loan at a certain rate of interest from different commercial banks like Jananta Bank, Rupali Bank or other loan providing financial institutions. He usually collects this type of loan for a fixed term. Fund can also be collected from bank and other non-institutional sources against collateral of fixed property of business like building, factory and current property like raw materials, saleable products etc. Besides, Mr. Rahman may meet the needs of finance by reinvesting the profit earned by him without withdrawing it from the business. If Mr. Rahman feels cash crisis to meet the current needs like maintenance of machineries, payment of house rent, payment of labour wages, payment of electricity bill etc. During the time when the business is in operation, he can receive advance from the buyers against future selling. Moreover, purchase on credit is another source of finance. Sometimes heavy machinery, big equipment, building, land, etc. can be rented from different organizations for a fixed period instead of purchasing and thus the business person can remain protected from the risk of huge investment at a time. Big business organizations like Kohinoor Chemicals, Beximco Pharmaceuticals, Square Textiles, Singer Bangladesh, arrange fund by selling shares and debentures. Fund collected from these types of sources can be used for long terms.

Thus, due to the differences of forms, nature and objectives of business, an organization collects fund from different sources. In every organization there are two separate sources of finance. One is the owner and the other is the creditor. Fund provided by the owner is called internal sources of finance and that provided by the creditor is called external sources of finance. Most of the organizations usually utilize both these two sources.

In table no 2.1, classifications of these two sources of finance have been shown:



Picture 2.1: Classification of the sources of finance

Individual Activity: Make a list of the sources from which a furniture businessman can collect fund.

2.2 Internal Sources of Finance

Fund which the owner of a business invests through his saved profit or unutilized profit is called the internal sources of finance. Internal sources of finance can be divided into two types: a) Ownership-based sources, b) Profit-based sources. Now we will know about the different kinds of these two sources of finance.

2.2.1 Ownership Based Classifications of Internal Sources

Nature of internal fund is different for different kinds of business organizations. We know, organizations may be of Sole Proprietorship, Partnership or Joint

Stock Company based on ownership. In sole proprietorship business, sources of internal fund are owner's own savings or it may be any kind of factors of production measurable in money, such as: land, labor, capital and organization which are used in production.

2.2.2 Profit-oriented Classification of Internal Sources of Finance

A business institution earns money through producing goods and providing services. The money which remains left after deducting the production cost, selling expenses, etc. from this earnings is the profit of the business. The remaining portion of profit after deducting the interest of loan and the tax payable to the government can be used in various ways as a source of fund and these are discussed below. As in the case of loan, interest payment is compulsory but in the case of internal financing almost nothing is to be done as compulsory; so, the risk of repayment related inability is decreased. Now, we will be introduced with some profit oriented sources of finance.

a. Undistributed Profit and Reserve Fund

The portion of profit which is invested in the business instead of distributing among the shareholders is called undistributed profit. If this undistributed profit is kept in separate fund for the purpose of business expansion in future, it is called savings fund. Besides, this type of fund may also be created to overcome financial disasters in future.

b. Dividend Equalization Fund

Shareholders of a company usually get dividend from the company on a regular basis. Goodwill of the company implies with giving this dividend. If in any year business earns less amount of profit, payment of dividend is not possible. But inability of dividend payment may deteriorate the business image in the market; so, in the year when the business earns huge profit, the company keeps aside small portion from the net profit as dividend equitable fund. It can be used to pay the dividend also in the year when business earns insufficient profit. Thus, this fund gives the business ability to pay dividend on regular basis.

C. Statutory Reserve

A certain portion of the profit, as determined, must be compulsorily preserved by the commercial bank in coordination with the central bank's directive,which is known as Statutory Reserve.

Individual Activity: Prepare a list of internal sources of business fund.

2.3 External Sources of Finance

External fund means external sources from which fund can be collected such as, fund collected by taking a loan from bank. It is a popular source of finance. Bank loan has some features. **First:** Bank loan has a fixed term, within this term loan is to be utilized and the principal amount with interest has to be paid back to the bank. **Second:** Rate of interest remains the same, for the long period of its term mo change is made. **Third:** Repayment of interest and installment of loan regularly and repaying the principal amount within the term is compulsory for the business. These dues have to be repaid even though the business is not profitable. Besides, fund can also be collected through selling debentures or bonds to the bank. Selling of preference shares is another source of external financing.

External sources of financing are very popular. Two reasons of these are identifiable:

1. If business is financed through loan, tax is imposed on the profit left after deducting the interest of loan from gross profit. As a result, amount of tax payable become less.
2. In case of small business, sometimes internal financing becomes compara tively less in amount; as a result, external sources act as the main sources of finance.

But one problem of external fund is the compulsory payment of interest. It was previously said that whether profit is earned or not, business is bound to pay the imposed interest as per schedule. This problem doesn't create if internal Sources are used. On the basis of terms, external sources can be divided into three types: a) Short term, b) Mid-term and c) Long term. Now we will get deas of these three types of sources.

2.3.1 Short Term Sources of External Finance

Short term means the duration of one year or less than one year. Most of the finances of an organization are usually collected from short term sources which are repaid within a year. In case of short term financing, an organization enjoys some benefits. For example:

First: Cost of capital from the short term sources may be comparatively both the highest and the lowest. For example, loan collected from the commercial bank is required to pay high rate of interest in short term. Again, different interest free sources like purchase on credit or wages kept due, a business organization can create fund for short term, which has no cost of capital. (We will learn in details about the cost of capital in the following chapters.)

Second: The process of short term capital exchanges is the fastest and simple process. On the other hand, the exchange of mid-term and long term financing requires to expend huge time and to follow long process.

Third: The business institutions whose products demand changes very swiftly within one year cannot make long term plan of production and financing. For example, due to the rapid change of demand for the fashion house's products, these types of business make plan for short term production, and thus require small amount of money at a time. Short term sources of financing are suitable for these types of businesses.

Now we will discuss the short term sources of finance. The sources of finance of this term can be divided into two types. We will discuss below first the institutional sources of short term finance and then non-institutional sources of short term finance.

1. Institutional Sources of Short Term Financing

A. Discounting Bills Receivable

When products are purchased on credit, the buying firm promises to the selling firm through signing a document to pay specified amount of money after expiry of the certain period (usually 3 months). This type of document is called the Bill of Exchange. This bill is receivable for the selling firm. So, selling firm can collect cash by exchanging or discounting this bill in a commercial bank. Let us assume, on 1 January, a buyer purchases goods of 500 taka on credit and agreed through signing the Bill of Exchange that he would be bound to pay 500 taka to the selling firm to the bearer of document on March 30. In this condition, if the seller needs money before March 30, he can sell this bill to a bank before the expiry of the period but he has to receive less than 500 taka, for example, with a discount rate of 8% per annum, after discounting he will receive 490 taka.

B. Bills Payable

In above example, Bill of Exchange is a bill receivable from the perspective of the seller, which is a bill payable to the buyers and is one of the sources of short term finance. When a business institution purchases raw materials, production materials etc. on credit, finance inflows for a short time in the business. Because if business couldn't get the opportunity of credit purchasing, finance would be required to buy on cash payment; hence if loan was collected from the bank, interest would have to be paid.

C. Short Term Bank Loan

In case of short term finance, unsecured bank loan is the main source. This kind of bank loan may be of different types. For example, in case of short term bank loan, usually interest with principal amount has to be repaid at a time after a specified time period. Many times, bank tries to collect full portion or part of the sanctioned loan before the specified time period and for this purpose bank gives discount on the total amount receivable as an incentive of earlier payment. For example, if a bank allows 2% discount on total amount to repay before the expiry of the term to a borrower of Tk 6,000 payable after 6 months then the borrower will pay Tk 5,880 to the bank.

Besides, if the creditor agrees to repay on demand instead of agreeing on a fixed term, this type of loan is called "Demand Loan". The institutions which have alternative sources of finance can use this source at a low cost of capital.

D. Bank Overdraft

Bank Overdraft is another type of short term finance. Every institution usually realizes its receivables and repays its payables through current account. This type of bank account mainly gives to its account holders the opportunity of withdrawing more than the amount of savings in this account; however, the bank restricts the maximum amount of overdraft. Generally, finance collection from this type of source is a well-known system for those institutions where sales decrease for sometime of a year. For example, it could be mentioned that an ice cream factory spends money throughout the year for production, warehousing, management etc. but maximum amount of ice cream is sold in Summer season; so for the purpose of financing in other time of the year this type of source can be used. Generally, in the case of other types of loan, interest has to be paid till the full repayment of loan, but interest for such types of loan has to be paid only when this loan is being used. However, the rate of interest of this type of loan is higher than the other types of loan and it is repayable on demand.

E. Microcredit

This type of loan is generally provided to meet the demand of current asset for agriculture based and small & cottage industry, such as management of a small industry, purchasing of agriculture based materials, management of a firm etc. Grameen Bank, Youth Development Bank, Co-operative Banks are used to provide such kind of loan. This kind of loan is given step by step on the achievement of goal.

2. Non-Institutional Sources of Short Term Financing

A. Commercial Papers

Some business organization sells Commercial Paper through promising to pay back the principal amount with interest after expiry of the certain period. At that time the company's goodwill acts as a security to the purchaser. Usually, those persons who have some excess money left as unutilized for the time being, purchase commercial papers as an alternative of investment in shares. Generally, well known person, commercial bank, insurance company etc. can arrange finance for a short time by selling commercial papers. Maximum maturity of commercial paper in 270 days.

B. Advance from Buyer

In many cases, trustful and permanent customers pay as advance to the producing or selling firm the full amount or part of their total purchase, and as a result, this acts as a source of finance to the seller for the time being.

C. Inventory Mortgaging

For the purpose of short term financing, warehouse asset can be used. If any business firm uses its inventory as security of loan received from a well known person or organization, it is called the inventory financing. In this type of financing, lender's control and right on inventories are kept until the loan with interest is refunded.

D. Village Moneylenders

Since long days ago, rich people of the villages have been providing short term loans to the poor people. In this case, the debtor has to pay high rate of interest. If the person fails to pay back the loan with interest within specified period, the moneylenders took the possession of his (debtor's) tangible and intangible property. Village moneylenders impose interest on this loan on on daily basis, weekly basis or monthly basis.

2.4 Mid Term Sources of External Finance

This type of loan extends from 1 to 5 years. A business firm uses this fund to meet the demand of long term needs of the current capital. Cost of capital or interest rate of this fund is higher than that of the short term sources of finance and less than that of the long term sources of finance. Sources of this type of loan according to their different features are discussed below:

A. Commercial Bank Loan

Loans which the commercial banks provide for mid-terms are usually given against security. Current asset or even fixed asset can be used as security for obtaining this type of loan. Huge amount of loan payment (in the same project) may be a risky job for a commercial bank. So, when a commercial bank pays huge amount of loan, it creates syndication of a number of commercial banks together to bear in group the high risk of loan payment. Before sanctioning the loan, a commercial bank finalizes its interest rate by analyzing the interest rate fixed by Bangladesh Bank and the demand of the loan.

B. Specialized Financial Institution

Generally, some financial institutions are established under the government ownership which are engaged in the development of the country's specialized sectors. These institutions provide mid term loan on favorable conditions to the relevant sectors. Industrial Bank, Agriculture Bank, Bangladesh Small and Cottage Industry Corporation etc. are examples of such institutions.

C. Non-Government Institutions

There are different kinds of NGOs working in Bangladesh which provide mid-term loan to the business institutions. For example, Midas, BRAC, Grameen Bank etc. are doing business as an NGO by getting legal entity. Besides providing fund, these institutions also provide consultancy, training, support in efficiency building activities etc. to the business organizations.

D. Capital Market Institutions

Different types of capital institutions such as insurance company, investment bank, finance mediatory institutions (underwriters) also provide mid-term loans.

2.5 Long Term Sources of External Finance

Long term financing extends from 5 years to the maximum of any duration. Long term financing has some distinctive features. We will now discuss these features. First feature of long term finance is that the amount is bigger than the mid or short term funds. So this fund is usually used to acquire fixed asset like land, building, equipment etc. Second feature is related with the repayment schedule. If long term fund is collected through loan, it has to repay as per contracted payment schedule. Again if long term fund is collected through selling shares, this fund is considered as owner's capital. So this liability need not be repaid till the business dissolution. In sole proprietorship and partnership businesses, the owner's capital can usually be used for indefinite long period too. The third feature is tax-related. Share dividend is taxable but interest of debenture is non-taxable. That is why the cost incurred from share selling is higher than the finance through long term loan. Now we will discuss the sources of long term fund.

A. Loan

Generally, any organization takes long term loans of big amount against security to bear the expenses of purchasing valuable equipments, machineries, buildings, land purchase etc. Before sanctioning long term loans, banks analyze different information like income of the company, goodwill, amount of fixed asset, previous events of taking loan and loan repayment trends etc. Long

term loan is collected for fixed investments, such as expansion of scope of the business, factory construction, building construction, purchasing heavy equipments etc. Before taking these investment decisions, the concerned business organization makes an estimate which is known as capital budgeting. Through this process future profit or loss is measured by adopting different procedures. If the financing organization is satisfied by this estimate of profit and loss, only then loan is sanctioned.

B. Debenture

In the case of debenture, fund is collected through selling the large amount of loan after dividing into small fractions. It is an alternative to share. But the borrowers are bound to pay fixed rate of interest which is kept mentioned in debenture. Whether profit is earned or not, the business is bound to pay the interest of the lenders. Main advantage of financing through selling debenture is the long term existence of fixed rate of interest; and as interest rate is predetermined, financial managers can make an effective plan of financing.

C. Leasing

Leasing is a modem method of long term financing. If an organization needs expensive property like machine, equipment, transport etc., it has to purchase those things directly or the organization can use those things through a lease contract from a leasing company instead of purchasing directly. But in that case, company does not get the ownership of the property.

Leasing company is the owner of the property. To enter into a leasing contract, the organization has to pay rent (like interest) to the leasing company at a fixed rate and thus it can get the opportunity for using the leased properties. Let us assume that a business firm takes a photocopy machine as lease from a leasing company for 6 years by pledging to pay a fixed amount of rent and returns it to the leasing company after the expiry of the period. That means on a leasing contract, ownership of the property is retained to the leasing company. As an advantage of leasing, the organization needs not to take long term loan or to use savings fund. For this reason, leasing is a source of long term financing. Newly established companies or the small companies whose capital for investment is not sufficient also can use expensive machines etc. Leasing company provides repair and maintenance services for the lease properties.

D. International Monetary Fund (IMF)

It is an international economic organization. It is initiated as a result of the proposal of Bretton Woods Conference of USA in 1945. At present the number of members of the Organization is 189 (Latest member is Republic of Nauru). It helps reconstruct the economy of different countries. Its headquarters is in Washington DC.

E. Common Share

A common share represents ownership capital of a company. A company raises funds by selling common shares, and this is considered external financing for the company. Through the issuance of common shares, a company raises long-term capital.Common shares have no maturity period. These shares can be sold at any time, and ownership can be transferred. Shareholders have voting rights in the election of directors. Over time, shareholders may also receive dividends. In the event of company liquidation, the capital invested is not guaranteed to be returned.

2.6 Considerable Factors for Selecting the Sources

Organizations collect funds from different sources to meet the need for money. For selecting the sources, we need to analyze advantages and disadvantages of different sources and take into considerations the cost of fund collection, nature of the organization, type and purpose of need of the fund etc. Making a right mix of the sources of fund is an important decision of the finance management. Things that should be taken into consideration for selecting right source of fund are mainly:

A. Type of Business

In case of sole proprietorship and partnership businesses, fund is collected usually through own savings, profit of business, or loans taken from relatives. In case of large scale of fund, leasing is also a good source of finance. In the case of public limited companies, instead of these most funds are collected through issuing shares and debentures. In picture 2.1 a structure of the sources of finance mix based on different formations and purposes of the business has been given. In the first line of the picture, we see the source is fit for sole proprietorship and partnership business. Hereafter, it is found that undistributed profit, overdraft, short term loan and leasing are acceptable for all kinds of

organizations. But long term loan and share issuing are applicable only for companies.

	Sole Proprietorship Business	Partnership Business	Private Limited Company	Public Limited Company
Savings	√	√		
Undistributed Profit	√	√	√	√
Overdraft	√	√	√	√
Short Term Loan	√	√	√	√
Leasing	√	√	√	√
Long Term Loan/Security			√	√
Share Issue			√	√

Picture 2.1: Selecting Sources of Finance based on the Types of Business Organizations

B. Insufficiency of Security Property

Usually in the case of a new business organization, getting loan against fixed asset as security is not possible. Because at the beginning situation, the business has no fixed asset which could be used as security. Besides, the selling of share and debenture is also a bit uncertain for the new companies. In such a situation, if long term fund is needed, it is more logical to collect that through leasing.

C. Types of the Needs of Finance

If a company wants to buy expensive equipments, machineries, land, buildings, etc. use of long term sources like issuing share and debenture, taking lease, taking loan against security etc. are effective. If there is shortage of fund to bear the expenditure of raw material purchase, paying wages, paying house rent etc., use of short term sources like credit purchase, receivable bill security, bank overdraft can be accepted.

D. Cost of Sources of Fund

Fund can be collected from many sources. But an organization takes loan from that source where the expenses are the least. For selecting a suitable source, the organization measures and analyses comparative advantages and disadvantages between the earned income from the use of the fund and the cost of fund collection. Suppose that a company wants to buy a factory to run its activities. So, it issues shares for fund collection. But for collecting fund through shares the company has to pay dividend to the shareholders, which is a cost of this source. Besides, the company can mortgage its property for buying the new factory. If through such mortgage the company takes loan for long term, it has to pay installments with interest to the lending organization until the loan is fully realized. As a result, this source is also expensive. The company can accept one of the two where the cost is least. Or, it can collect fund by making a profitable mix of the two sources. Dividend of share is taxable, but interest of debenture is non taxable. Therefore, to reduce the load of tax, taking loan from bank or other sources is better than collecting fund from internal sources. In many cases, there are more advantages and cost is also reduced by using a mix sources instead of using a single source.

E. Risk of Sources of Fund

If a company takes loan against security, it has to keep properties as security to the lending organization. If it is not possible for the company to repay the loan within the specified period, it is bound to repay the money by selling property kept as security. As a result, in selecting the suitable source, related risks of the concerned source have to be considered.

Group Activity: Prepare a list of sources of fund according to the types of business organization.

Sample Questions

Multiple Choice Questions

1. Which is the source of mid-term finance?

A. Microcredit
B. Specialized Financial Institution
C. Collect Advances from buyer
D. Discounting the Bills Receivable

2. Factors that are considered to solve the financial problems of business organizations are -

i. cost of collecting capital

ii. importance and objectives of capital

iii. different types of benefits

Which one of the following is correct?

A. i and ii
B. i and iii
C. ii and iii
D. i, ii and iii

Read the following Stem and answer the questions 3 and 4 .

Mr. Bazlur Rahman, a businessman of garment industry, has rented some necessary machines and equipments for 7 years for his new enterprise.

3. What sources has Mr. Bazlur Rahman taken support from for fund collection?

A. Advances from buyer
B. Leasing
C. Debenture
D. Commercial Paper

4. In case of fund collection, Mr. Bazlur Rahman has avoided–

i. utilizing reserve fund

ii. taking long term loan

iii. paying compulsory interest

Which one of the following is correct?

A. i and ii
B. i and iii
C. ii and iii
D. i, ii and iii

Creative Questions

1. For a long time, Dinonath Chakrabarty had been involved in business of Jamdani Saree and to save fund, he sometimes used to collect money from various sources for a short time. But presently he has dicided to start a Handloom factory by expanding the business. He is also working to arrange an old factory in Narayanganj with 100 machines for 10 years.

    a. What is a commercial paper?
    b. Explain the role of reserve in business expansion.
    c. At present, what type of funding does Dinanath Chakraborty generaly use to try to solve his business problems?
    d. Provide arguments in favor of whether Dinanath Chakraborty shoulrely on other sources of financial assistance for business expansion.

2. Shafiq couldn't continue his studies. Later, without getting any job, he was motivated to do a business by taking training on leather industry. To solve his financial problem, he approaches to the government financial institutions and local non-government sources.

    a. What is dividend equalization fund?
    b. Which financing is considered institutional funding for a term of five years or more? Explain.
    c. What type of institution is the government financial organization that helped Mr. Shafique? Describe.
    d. Explain how, according to Mr. Shafique, non-governmental organiza tions (NGOs) can play a role in empowering young entrepreneurs.

Short Questions

1. How is the bill discounted? Write with examples.
2. How does a rural moneylender exploit creditors?
3. Why is internal funding more advantageous than external funding?
4. How does undistributed profit reduce the cost of capital?

Chapter Three

Share, Bond and Debenture

Share, Bond and Debenture issued by compnies are the long term sources of finance and at the same time each of them is an investment system for the investors. Each of these system of investment used as sources of investment has its individual features, advantages and disadvantages. Expected income and risks of the investors from these systems of investment are different. So, an investor should know about different sides of each of these systems of investment before taking his decision for investment. In this chapter we shall be able to know about these systems of investment from the perspectives of the investors.



After reading this chapter we shall be able to –

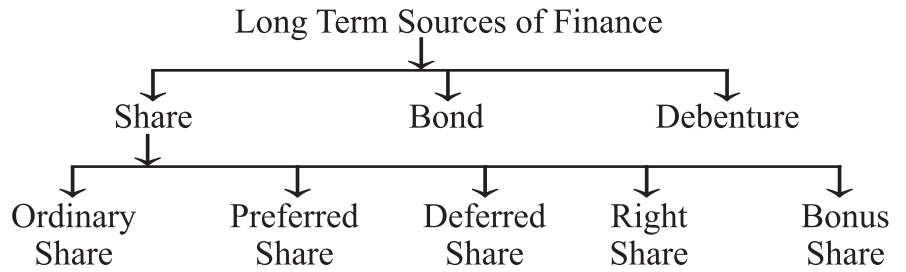
- describe the concepts of share, bond and debenture.
- classify different types of shares.
- identify the comparative differences among different types of shares.
- describe the differences between bond and debenture.
- explain dividend policy.

3.1 Introduction

Ordinary Share, Preferred Share, Bond and Debenture issued as the sources of finance by the companies are considered as sectors of investment for the investors. An investor can invest his money in different sectors. Assume, your father has 10 lac taka. He can, according to his wish, put it in a bank as fixed deposit or he can invest it in one or more systems of investment– ordinary share, preferred share, bond and debenture issued by companies. As sectors of investment, each of these has its own special features. Expected income and risks of the investors from each of these systems of investment are different. Special features and advantages-disadvantages of each of these as sectors of investment and their comparative evaluation have been discussed in the following paragraphs.

3.2 Classification of Shares

Selling of shares is an important source of collection of fund and capital of a public limited company. Shares are the small part of huge capital. Buying shares can encourage the small investors. Thus small investors become the owner of the company. To attract the investors, the company issues different types of shares. Different kinds of share are described below.



3.2.1 Ordinary Share

The voluminous total capital of the company is divided into small units and those are sold as shares. After gathering minimum capital with the approval of the government, applications are invited from the public through giving an advertisement in the newspapers containing a paper of statement with information about the company. When submitted applications are huge in number, shares are distributed by lottery. As a result, small investors also can participate in investment by buying shares. They are indeed the owners of the company. If the company earns profit, it is distributed among them as dividend. The invested money of the shareholders is not refundable. However, if the liquid money is needed, the shareholders can sell these shares in the secondary market (such as: Dhaka Stock Exchange) and if the price is increased there, they get

profit. Usually, in the cases of profitable companies, shareholders get dividend on regular basis. However, the rate of giving dividends is not pre-fixed. Giving dividends is also not mandatory for the company. If no profit occurs, dividend is not usually given. And even if the company makes profit, total amount of profit is not distributed as dividend. If the company wishes, it can give dividends at any rate; besides it can give no dividend also. But in that case, if the company cannot give dividend to the shareholders, the price of the shares is decreased in the secondary market, which is not good for the company.

Buying shares is a risky investment for the investors. Share issuing companies are not always bound to give dividends to the shareholders. If the company cannot make sufficient profit in a year, no dividend is given to the shareholders that year. Besides, when the company is closed, claims of the ordinary shareholders are met after meeting the dues of the creditors and preferred shareholders from the money got by selling the assets of the company. As a result, if there is no money left after paying all dues, ordinary shareholders may have the risk of getting no money back for their investment.

For these reasons, investment in ordinary shares is considered a comparctively risky investment. However, as it is a risky investments so there is also the possibility of making more profit from such shares. If an investor decides to invest with clear knowledge and good calculations, ordinary shares may become a good source of investment for him. As a tool of investment, ordinary shares have some special features. Those are described below:

A. Ordinary shares provide ownership of the company to the share investors. As a result, as an owner he has the legal rights on its profits earned and its assets.

B. Ordinary shares give full authority to its owners to control the company. Shareholders control the company by applying their voting right in taking important decisions.

C. Ordinary shares are easily transferable. The investor according to his/her wish can handover the shares at his/her ownership at any time.

As a tool of investment ordinary shares have some advantages and disadvantages

Advantages

A. More Income: Ordinary shares can be a source of good income if an investor invests his money with clear knowledge and good calculations. The income

earned by the investor from other tools of investment like preferred shares, bonds and debentures is fixed. But income from ordinary shares is not fixed. As a result, when the company earns more, the income of the investors also increases.

B. **Limited Liability:** The owners of the ordinary shares jointly bear the risks of the company. The total risks of an investor are at no circumstances bigger than his invested money. For example, an investor has bought 100 shares of a company and the face value of each share was 10 taka, so his total liabilities may be at best $10 \times 100 = 1{,}000$ taka.

C. **Liquidity:** Ordinary shares are well considered by the investors as liquid money. The investor according to his wish can collect money at any time by selling the shares at his possession. However, the liquidity of shares of all companies is not equal. Usually, the liquidity of shares of big and good companies is higher than that of other companies.

Disadvantages

A. **Risk:** Investment in ordinary shares is comparatively risky. There are many speculative investors in the share market. As a result, there is risk of incurring loss if the investment is not guided by knowledge and good calculations.

B. **Rights in Profit and Property Distribution:** In distribution of profits, the company has to pay first all the liabilities payable to the owners of preferred shares, bonds and debentures; and the ordinary shareholders have rights on the remaining profits. In this way, when the company is closed, after paying all the liabilities of the company with the money got by selling its assets, the shareholders will distribute among themselves the rest of the money That is, in both the cases the rights of the owners of preferred shares, bonds and debentures get priority over the rights of the ordinary shareholders.

3.2.2 Preferred Share

Investment in preferred shares is considered a good tool of investment for those investors who expect income at a certain rate from their investment in shares. However, in our country preferred shares are not found so much. Like that of ordinary shares preferred shares also have some own features and characteristics:

A. **Ownership:** Preferred shareholders are not considered as full owners of the company. They are considered in between the owners of ordinary shares and the owners of bonds and debentures.

B. Transformability: For many preferred shares, alternative options are there to transform them into ordinary shares. So, if the investor wishes, he can change his status to an owner of ordinary shares.

From the perspective of the investors, preferred shares have some advantages and disadvantages. The advantages and disadvantages of preferred shares are discussed below:

Advantages

A. Income at Certain Rate: The owners of preferred shares get dividend at some certain rate. As a result, the shareholders have less uncertainty of income.

B. Priority on Profit/Income: While getting dividends, owners of the preferred shares get priority over the owners of the ordinary shares.

C. Claims on the Properties: At the time of liquidation or closure of the company, claims of the owners of preferred shares are first considered before meeting the claims of the owners of ordinary shares. But of course, their claims are met after fulfilling the claims of the owners of debentures.

Disadvantages

A. Control: The preferred shareholders do not have any voting right. So they have no control over the company.

B. Limited Income: Preferred shareholders' rate of income is fixed. Hence, preferred shareholders do not get any share of extra profits made by the company.

Activity: Make a comparative evaluation between ordinary shares and preferred shares from the perspectives of an investor.

3.2.3 Deferred Share

Defferred Shares are those shares for which owners receive dividends after dividends have been distributed to all other classes of shareholders. In case of the closure of company the demands of these shareholders are fulfilled at the end. Generally company founders or promoters buy these types of shares. For this reason, it is also called promoter share·

3.2.4 Right share

When old shareholders get priority in shares in the case of selling shares after the formation of company, these shares are called right shares. It means when in later, the company sells shares to collect fund, and the old shareholders preserve the rights of buying those shares at that time, those sellable shares are called right shares.

3.2.5 Bonus share

When company's undivided earnings are not given out in the form of dividends, but are converted into free shares, these are called bonus share. Bonus shares are shares given to the old shareholders in a proportionate rate.

3.3 Bond

Bond is another tool of investment for the investors. You have known earlier that bond is a document or agreement through which a company gathers loan capital from the investors. In our country most of the companies gather loan capital through taking loans from banks or other financing organizations. As a result, bond is not yet so much familiar in our country.

Bond has some particular features and characteristics of its own from the perspectives of investors. Those are discussed below:

A. **Mortgage:** A company usually keeps its property or documents as mortgase against bonds. As a result, if the company is not able to meet the claims of the investors, they can realize their money by selling these properties.

B. **Date of Maturity:** A bond issued by a company has a certain date of maturity.On that date of maturity the investor gets back the written value as mentioned in the bond.

C. **Creditor:** Bond owners are considered as the creditors of a company. So they have no voting right.

D. **Transformability:** Many a time, a company may sell transferable bonds to the investors. In such cases, if the bond owners wish, they can transform the bonds at their possession to a certain number of general shares as mentioned in the conditions of the debenture.

Advantages

A. **Rate of Interest:** As the rate of interest is fixed, the income of the investors in bonds is fixed. As a result, they have less uncertainty of income.However, sometimes the rate of interest may also change.

B. **Less Risk:** As immovable or other properties are kept as mortgage against bonds, the risk of investors in bonds decreases.

C. **Rights on Profit and Properties:** Bond owners are given interest on their investment at the very first from the income of the company. On the other hand, at the time of liquidation or closure of the company, claims of the bond owners are first met before meeting the claims of others. That is, the claims of bond owners get priority over the claims of the general and priority shareholders.

Disadvantages

A. **Less Income Rate:** As there is less risk in bonds compared to general shares and priority shares, the rate of income of the bond owners is less.

B. **Control:** As like that of priority shares, the bond owners do not have voting right, they cannot involve themselves in the control of the company.

3.4 Debenture

Debenture is a bond without mortgage. So, most of the characteristics of bonds prevail in debentures. Like bond and priority shares, debentures are also not found so much in our country.

Compared to bond, its special feature is that there is no mortgage against debenture. As there is no mortgage against debentures, investors do not buy debentures of all companies. Investors usually invest their money in debentures issued by big renowned companies.

Advantages and Disadvantages of Debenture

As a tool of investment, some advantages and disadvantages of debentures are as follows:

Advantages

A. **Regular Income:** Like that of bonds, an investor gets a regular income at some fixed rate from debentures.

B. **Fixed Term:** Debenture is popular to many investors for its fixed term.

Disadvantages

A. **No Security or Mortgage:** Since there is no mortgage against a debenture, it is risky.

B. **Control:** Like that of bonds, an owner of debenture does not have any voting right. Hence, owners of debenture have no control in the operation of the company.

C. **Rights in Profit and Property:** An owner of debenture enjoys an equal status of general creditors. So, before paying interest to the owners of debenture, interest of the bond owners is paid from the income of the company. In this way, at the time of liquidation or closure of the company, claims of the debenture owners are met after meeting the claims of the bond owners

Individual Activity: Explain that out of Bond and Debenture which one should be preferred by an investor to invest.

3.5 Share Market of Bangladesh

As a capital gathering market, share market plays an important role in the economy of any country. For this reason, general people or an investor expects that share market should run smoothly. With the passage of time, the share market of Bangladesh is gradually developing through different changes. Investment in share market is a risky investment. Therefore, one should not invest there without correct ideas about investment in share market. Here, there is risk of getting loss with the possibility of making profit. Before investing in the share market, an investor should analyze different information such as earnings per share (EPS), type of business, management of the company, net asset value (NAV) etc. by collecting the annual financial statement of the company. An investment decision should be taken after collecting huge information about the industry sector and economic condition of the country in addition to the information of the companies. If necessary, advice may be taken from the market experts. But at no condition, an investor should take investment decision on the basis of rumour.

For well performance of activities of buying and selling of shares of share-issuing companies and investors, an well-established organization is needed. Such an organization is called stock exchange. Stock exchange helps companies gather fund from general people or organizations and arranges a fixed place for the investors for buying and selling of shares. There are two stock exchanges in Bangladesh:

1. Dhaka Stock Exchange Limited
2. Chattogram Stock Exchange Limited

In the two stock exchanges as mentioned above, general shares, mutual funds, debentures, bonds etc. of different companies are bought and sold. For the

B. Dividend Payment Ratio Policy: According to this policy, a company decides every year what portion of its profit will be given as dividend. As per the decision, every year the company gives dividend proportionately.

For example, a company decides to give at 50% proportional rate of earned profit. As a result, if in one year the company earns 2 crore taka, then it will give the shareholders 2 crore x 50% or 1 crore taka as dividend.

C. Fixed Dividend along with Additional Dividend Policy: This is an ideal dividend policy for those companies which have no fixed or regular income. According to this policy, a company gives an additional dividend every year in addition to a minimum fixed dividend. As this dividend policy is much flexible than other dividend policies, many companies adopt this policy.

convenience of the investors for taking investment decisions, the shares of the companies scheduled in the stock market have been classified in different types as A, B, G, N, Z etc.

Usually indexes are used to understand the trend or overall condition of the share market. For example, in Dhaka Stock Exchange the following four indexes are used, namely:

a. DSE Broad Index
b. DSE Shariah Index
c. DSE 30 Index and
d. DSE CDSET Index

In this way, in Chittagong Stock Exchange three indexes are used, namely:

a. CSE All Shares Price Index
b. CSE Selective Categories Index and
c. CSE 30 Index

Indexes of share market rise and fall everyday and every time. These rise and fall provide information about the trends and directions of the market. The rises and falls of these indexes depend on the rises and falls of share prices of the companies scheduled in the share market. If the prices of most of the company's shares increase, the indexes increase; again if the prices of most of the shares decrease, the indexes decrease.

3.6 System of Investment in Shares

Investors can invest in share markets in two ways:

A. Through Primary Market
B. Through Secondary Market.

A. Primary Market: Primary market means that market where a company announces the initial public offering (IPO) for selling its shares. When a company sells its shares in the market for the first time, that offer for selling is called IPO. If an investor buys shares by participating in the IPO offered by any company, it is considered that he has bought primary shares. Investment risk is comparatively lower in the primary market.

B. Secondary Market: After selling shares for the first time by a company to the investors, the investors can buy and sell shares among themselves. The market where investors buy and sell shares among themselves is called a secondary market. Investment risk is comparatively higher in the secondary market.

3.7 Dividend and Dividend Policy

The gains or profit of a company is the income deserved by the shareholders. So, the gains or profit is distributed among the shareholders. Usually, a company does not distribute the full amount of gains or profit among the shareholders.

It retains a portion of the gains or profit for financing in the affairs of business in future, and distributes the rest amount among the shareholders. The portion of gains or profit which is distributed among the shareholders is called dividend. A company can give dividend usually in two ways:

A. Cash Dividend
B. Stock Dividend or Bonus Share

A. Cash Dividend: The dividend which is paid in cash money is called cash dividend. For example: suppose, a company announces 10% cash dividend. An investor holds 500 shares of that company of each share priced 10 taka. That investor will get 10% x 5000 or 500 taka as cash dividend.

B. Stock Dividend: Many a time, a company gives stock dividend instead of cash dividend or stock dividend side by side with cash dividend. The company usually gives stock dividend in proportion with shares issued at present. As a result, the number of shares of the company increases. Suppose, a company has at present 10 millions shares of face value 10 taka. The company announces 50% or 2:1 portion of stock dividend. As a result, if an investor has 500 shares at present, after getting the dividend the number of his shares will be 750. In this way, total shares issued by the company will be 15 millions.

Dividend Policy

A company has to take dividend-related various decisions every year, for example, what portion of profit will be given as dividend, whether cash dividend or stock dividend will be given, etc. For taking these decisions, every company has particular policy which may give directions to give dividend. These policies are called dividend policies. Usually, three types of dividend policies are found, such as:

A. **Fixed Money Dividend Policy:** According to this policy, every year equal amount of money is given as dividend. For example, if a company gives 10 taka dividend per share every year, it will be called fixed dividend policy. Whatever more amount of money a company may earn, it gives same amount of dividend as was given in previous years. However, in this system the amount of dividend usually does not decrease.

Sample Questions

Multiple Choice Questions

1. A source of collecting capital of a company are –

i. share
ii. bond
iii. debenture

Which one of the following is correct?

A. i and ii
B. i and iii
C. ii and iii
D. i, ii and iii

2. Which one is a disadvantage of preferred shareholders?

A. Priority on profit
B. Limited liability
C. Limited income
D. Income in a fixed rate

3. In how many types the shares of companies scheduled in the stock exchange are classified?

A. 2 B. 3 C. 4 D. 5

Read the following stem and answer questions numbers 4 and 5:

Mr. Habib bought shares of 'Bandhab' company being attracted on seeing its first ever offer for selling the shares. After few years, as he falls in financial crisis, he is willing to go to market to sell them.

4. Where did Mr. Habib collect 'Bandhab' company's share from?

A. Head office of the company B. Securities and Exchange Commission
C. Primary Market D. Secondary Market

5. Which market is logical for Mr. Habib to sell his share?

A. Head office of the company B. Securities and Exchange Commission
C. Primary Market D. Secondary Market

Creative Questions

1. Mr. Arif is an investor. He has the opportunity to invest in two types of shares, "A" and "B". Although his income is not certain by investing in sector 'A', he will be able to participate in important decisions of the company. In investing in sector "B", his income is certain - and he will get priority over profits and assets. However, he is currently thinking about another investment "C" from which he will get back the invested money at the end of a certain period. However, the company will not give him any security for this.

   a. What is bonus share?
   b. Explain why Companies whose earnings are not stable follow a policy of additional dividend policy along with fixed dividend.
   c. Explain the type of investment of Mr. Arif in sector 'C'.
   d. Which investment among sectors "A" and "B" do you think is more suitable for Mr. Arif? Give your opinion in the light of the stem.

2. A & Z Company borrowed 2 crore taka from Mr. Khabir Hossain by issuing a loan bond. According to the agreement with Mr. Khabir Hos sain, the company had to return the money with interest by 30th June 2018. The company could not repay the debt within the stipulated time, so he filed a case.

   a. What is a share?
   b. Explain why companies whose earnings are not stable follow a policy of additional divident policy along with fixed dividend.
   c. Which technique has A& Z company chosen for financing for financing.
   d. Evaluate the security of khabir hossain's investment in the context of whether A and Z company goes resolve or not.

Short Questions

1. How do existing shareholders get the right to receive bonus shares? Explain.
2. What is meant by the promoter's of shares?
3. Write two features of bond and debentures.
4. Write two features of common shares.
5. Explain how dividends are distributed under a proportionate dividend policy.

Chapter Four

Time Value of Money

The concept of Time Value of Money is the root of most financial decisions. Today's Tk. l00 and Tk. l00 after 10 years will not carry the same value. This concept of time value is also necessary in our daily life. If we know by what rate he is calculating the interest of the loan taken from the village moneylender, we will be able to evaluate among different sources and we can compare different sources before taking any financial decision. This way we can finance from most suitable sources. How future value, present value and actual interest rate are determined will be covered in this chapter. To solve these mathematical problems, scientific calculator will be needed.



After reading this chapter we shall be able to –

- explain the concept of time value of money.
- identify the relationship between present value and future value.
- exercise the method of calculating EAR (Effective Annual Rate)
- analyze the method of calculating the loan installment.
- identify the method of calculating the Future Value of Saving Scheme.

4.1 Concept of Time Value

From the perspective of finance, value of money changes with the changes of time. That means Tk. 100 of that time and Tk. 100 after 5 years do not have same value. Tk. 100 of present time is more valuable. It is the concept of time value. Main reason of time value is interest rate. Let's assume, you have Tk. 100 due to your friend. He told that he would make payment after 1 year instead of paying now. Time Value of money says, Tk. 100 of this time is not same as Tk. 100 after one year. Suppose, interest rate is 10%, so if you deposit Tk. 100 in Sonali Bank then bank will give you Tk. 110 after one year. Thus today's Tk. 100 and Tk. 110 after one year bear same value.

4.2 Importance of Time Value of Money

In business, inflow and outflow of money are related with every decision. Generally the flow of money occured from selling goods and services is called inflow and the flow of money occured for purchasing raw materials, paying wages and other operating expenses is called outflow. For the purpose of taking right decision, present value and future value of inflow and outflow are needed to be calculated on term basis. So, considering the importance of the "Time Value of Money" it can be said that–

a. Determining Opportunity Cost

If money is invested in any project then opportunity of investment in other project has to be missed. The expected return from the missing investment opportunity is called opportunity cost of investment. This opportunity cost can be calculated by the application of formulas of "Time Value of Money" As an example: In your locality land value become double in 10 years. On the contrary, let assume, interest rate is 8% in Sonali Bank Saving Account. If land is purchased than money cannot be deposited in the Bank. So, in that case, opportunity cost of land purchase is 8%. By using equation-I of that chapter we can take a decision whether we should purchase land or should deposit in bank. Concerning this matter, most easy and almost perfect method is known as "Rule-72". If money doubles, then 72 are divided by the term or duration. By this which interest rate is found, if this rate is divided by 72 we will get duration. As land value becomes double then interest rate is (72/10)% or 7.2%. So, depositing money in Sonali Bank instead of purchasing the land is logical.

b. Project Evaluation

To evaluate the long term project, comparison has to be made between the present cost of project and expected income or inflow of money from investment. From this chapter we have known that present value of money and future value of

money is not same. So without returning expected income of the project into a present value, we cannot take any long term decision. Later we will explore details about this decision in Capital Budgeting chapter.

c. Borrowing decision

Before taking loan from Bank or Financial Institution installment ability should by measured at first. On the basis of the loan repayment schedule, amount of installment differs. For example, Loan Installment of 5 years term loan and 8 years term loan will not be same. Again term may be yearly, monthly etc. In this situation installment amount will be different too. We can find out term of different installment of different amount of loan and by this we can take decision about the length of the term of the loan, the way of installment repayment, the amount of loan will be suitable for business. Due to the lack of this planning, most of the company is declared bankrupt because before taking any loan, one has to verify the ability to repay the loan. It should be remember that loan repayment is obligation for any business and failure of this causes bankruptcy.

4.3 Formulas of Time Value of Money

In the previous example we have known that if interest rate is 10% then Tk 100 of this time is as same as Tk 110 in the next year. This Tk 100 is called present value and Tk 110 is called future value.

4.3.1 Future Value and Annual Compounding

If present value is known, future value can be found by using the formula-1 below: Formula-1: Future Value (FV) = Present Value $(1 + \text{Interest Rate})^{\text{Yearly duration}}$

or, $FV = PV\ (1+i)^n$

Here FV is Future Value and PV is Present Value.

1 year after Future Value of Today's TK. 100 $= 100\ (1+0.10)^1 = 100 \text{ X } 1.10 = \text{TK. } 110$

2 year after Future Value of Today's TK. 100 $= 100\ (1+0.10)^2 = 100 \text{ X } 1.21 = \text{TK. } 121$

The procedure that has been used in above example to measure future value is called compounding method. Here, it may be mentioned that in the Tk 110 future value after 1 year are the principal amount of Tk 100 and Tk 10 as interest at 10% rate. In the same manner, if the interest in the 2nd year is 10, future value should be Tk 120 but the future value for 2nd year is Tk 121. This is because at the beginning of 2nd year, the principal amount is Tk 110 and this makes the interest at 10% rate in 2nd year to Tk 11. Thus the first year's principal amount with interest is considered as a second year's principal amount and charging

interest on this amount is the compounding method. In compounding method, future value is measured by charging interest rate on every year's principal amount with interest. Therefore, the interest rate that is being charged on principal amount with interest is called compound interest. But in the case of simple interest rate, yearly interest is calculated by charging interest rate only on principal amount.

Activity: Determine the future value of Tk 1,000 @12% interest after 5 years using the concept of compound interest and simple interest.

4.3.2 Present Value and Yearly Discounting

If future value is known, then according to Formula: 2, present value can be calculated. The element by which Formula: 1 was multiplied, here the same element is used to divide by. It is called discounting method.

Formula No. 2: Present Value $= \frac{\text{Future Value}}{(1+i)^{\text{Yearly duration}}}$ or, $PV = \frac{FV}{(1+i)^n}$

Example: Present Value of Tk. 100 after 1 year $= \frac{100}{(1+.10)^1} =$ Tk 90.91

In the above example discounting method has been applied to calculate the present value in which, oppositely, principal amount with interest has been divided by the interest rate. So, if your friend returns you Tk. 100 after one year, it has present value of Tk.90.91. Generally due to the interest rate differences occur between present value and future value.

By the use of compounding and discounting method in different examples, present value and future value of single amount cash flow are being calculated:

Example-1

What will be the future value at the end of the 5 years of Tk100 paying 10% rate of interest?

According to Formula-1:

Here, Present Value (PV) = Tk100
Interest Rate (i) = Tk10%
Duration (n) = 5years
Future Value (FV) = What?
$FV = PV\,(1+i)^n$

Putting Value in Formula,

$FV = 100\,(1+.10)^5$
$= 100\,(1.10)^5$
$= 100 \text{ X } 1.610$
= TK. 161

Concept: If interest rate is 10%, today's Tk 100 has equal value of Tk 161 after 5 years.

Example-2

If interest rate is 10% then what is the present value of Tk 100 to be received after 5 years.

Let's use formula: 2 to find the present value of Tk 100

Here, Future Value (FV) = Tk 100

Interest rate (i) = 10%

Duration (n) = 5 years

Now, Present Value (PV) = $\frac{FV}{(1+i)^n}$

Putting value in formula,

$$PV = \frac{100}{(1+0.10)^5}$$

$$= \frac{100}{(1.10)^5}$$

= TK. 62.09

Concept: If Tk 100 will be received after 5 years, then present value is Tk. 62 (approximately). So, if your friend pay Tk. 100 after 5 years, in lieu of paying now, then according to present value your loss will be (100 - 62) = Tk 38.

If interest rate is 20% then present value of Tk 100 to be received after 5 years

$$PV = \frac{100}{(1+0.20)^5} = \frac{100}{(1.20)^5} = \text{Tk } 40.19$$

Here it should be noted that if interest rate increases from 10% to 20%, then for Tk l00 to be received after 5 years, the present value would not be the half of Tk 62. That means, increase and decrease of interest rate do not have proportionate relationship with the time value of money.

4.3.3 Future Value calculation by the use of compounding more than once in a year

In above example, one time compounding in a year has been assumed but sometimes more than one time compounding may occur. For example, if money deposited in the bank, it compounds monthly. It means 12 times in a year. In that case, equation has to be changed in two places. If it compounds many times, then firstly interest rate has to be divided by 12 and secondly total term will have to be multiplied by 12 too.

Example-3

If you deposit Tk l00 in a bank at the rate of 10% compounding and you know, it will be compounded 12 times, then after one year how much money will you get?

Formula-3: $FV = PV\left(1+\frac{i}{m}\right)^{(n\ x\ m)}$

Here, Present Value (PV) = Tk 100
Interest Rate (i) = 10%
Total number of compounding (m) = 12
Number of year (n) = 1 year
Future Value (FV) = ?

By Putting Value in Formula,

$$FV = 100\left(1+\frac{0.10}{12}\right)^{(1\ x\ 12)}$$

= TK. 110.47

Concept: If you deposit Tk. 100 in a bank after one year you will get Tk. 110.47. Hence you will get Tk. 110.47 - Tk. 100 = Tk. 10.47 more.

Example: 4

If you deposit Tk 50,000 in a bank at 13.5% monthly compounding, then what amount will you get after 10 years.?

$$FV = PV\left(1+\frac{i}{m}\right)^{(n\times m)}$$

Here, Present Value (PV) = Tk 50,000
Annual Rate of Interest (i) = 13.5% or, 0.135
Number of compounding in a year (m) = 12
Number of years (n) = 10 years
Future Value (FV) = ?

Putting value in formula, $FV = PV\left(1+\frac{i}{m}\right)^{(n\times m)}$

$$= 50000\ \left(1+\frac{0.135}{12}\right)^{(10\times 12)}$$
$$= 50000 \times (1.01125)^{120}$$
= TK. 1,91,423.02

Concept: So, today's Tk 50,000 and to be received Tk 191423.02 after 10 years of the same policy have equal value.

4.3.4 Calculation of Present Value by discounting more than once in a year

If we pay attention from different view points in above example, we can get the knowledge of present value that, present value of Tk. 191423 to be received after 10 years is Tk. 50,000. If we know the future value then we can easily find the present value.

In the case of compounding more than once in a year, we will find the present value from the future value through discounting. This situation can be explained through an example:

Example - 5

With the expectation of Tk. 50,000 to be received after 5 years, you want to save some money in a bank. 'A' bank has proposed to give 10% interest and 'B' bank has proposed to give 9.5% monthly compounding rate. In this condition, in which bank will you deposit money? To take this decision we have to calculate the present value of both proposals.

Bank- 'A' (Annual Rate of Interest compounded annually - 10%)

According to Formula 2:

Here, Future Value (FV) = Tk50, 000
Annual Rate of Interest (i) = 10% or, 0.10
Number of years (n) = 5 years
Present Value (PV) = ?

Putting Value in Formula,

$$PV = \frac{FV}{(1+i)^n}$$

$$= \frac{50,000}{(1+0.10)^5}$$

$$= \frac{50,000}{(1.1)^5}$$

$$= \text{Tk. } 31,046$$

Bank- 'B' (Annual Rate of Interest Compounded Monthly = 9.5%)

Formula-4:

$$PV = \frac{FV}{\left(1+\frac{i}{m}\right)^{m \times n}}$$

Here, Future Value = Tk 50,000
Annual Rate of Interest (i) = 9.5% or, 0.095
Number of Compounding Annually (m) = 12
Number of years (n) = 5 years
Present Value (PV) = ?

Putting Value in Formula, $PV = \frac{FV}{\left(1+\frac{i}{m}\right)^{m \times n}} = \frac{50,000}{\left(1+\frac{0.095}{12}\right)^{5 \times 12}} = \frac{50,000}{(1.00791666)^{60}}$

$$= \frac{50,000}{1.6050} = \text{Tk. } 31,152.46$$

Concept: So, Tk 50,000 to be received after 5 years, Tk 31,046 has to be deposited in Bank– 'A' and Tk 31,152.46 has to be deposited in Bank– 'B.' So Bank – 'A' is a profitable proposal.

4.4 Effective Annual Rate of Interest

If loan taken from the village Money Lender at weekly 1% compounding rate, yearly or nominal interest rate will be 52% in 52 weeks, but if interest rate compounded 52 times in a year, EAR or Effective Annual Rate shows different rate.

At weekly 1% compounding EAR is being calculated through the application of following formula:

Here, Weekly Interest Rate (r) = 1%

Yearly Interest Rate (i) = 52%

Annual Number of Compounding = 52

Effective Annual Rate = ?

(EAR= Effective Annual Rate)

Putting Value in Fromula,

$$EAR = \left\{\left(1+\frac{1}{m}\right)^{m}-1\right\}\times 100$$

$$EAR = \left\{\left(1+\frac{.52}{52}\right)^{52}-1\right\}\times 100$$

$$= \{(1.01)^{52}-1\}\times 100$$

$$= 1.67768-1$$

$$= 67.77\%$$

Concept: That means, Annual 67.77% interest rate and Weekly 1% interest rate are the same.

Activity: If loan is taken at monthly 2% compound rate of interest, what will be the Effective Annual Rate of interest?

Sample Questions

Multiple Choice Questions

1. What is the main reason of the time value of money?

   A. interest rate B. currency policy

   C. liquidity D. additional profit

2. Which of the followings is given on principal with interest?

   A. simple interest B. compound interest

   C. total interest D. net interest

3. Discounting process means–

   i. process of measuring the amount of discount

   ii. techniques to determine the present value of money

   iii. process of dividing principal with interest by the interest rate

Which one is correct?

A. i & ii B. i & iii

C. ii & iii D. i, ii & iii

4. Which factor of the followings has vast importance in Time Value of Money?

A. Identify the interest rate B. Investment decision taken

C. Decrease installment of loan D. Measure financial condition

5. Withdrawing some amount the provident fund Mr. Harun wants to invest some money in Digital Bank at 12% compounding interest rate for 5 years. Bank says, after 5 years bank will pay Tk 5,00,000. How much money Mr. Harun wants to deposit in Digital Bank?

A. Tk. 2,00,000 B. Tk. 2,83,713

C. Tk. 3,12,500 D. Tk. 8,81,171

Read the following stimulant and answer questions 6, 7 and 8.

Three friends Shuvo, Shainik and Munna started a computer and mobile servicing center together in their business area. They felt the need to buy a computer for their service center. When they applied for loan in the local banks, bank A agreed to allocate Tk 50,000 on 20% yearly compound interest and bank B the same amount on 10% monthly compound interest refundable after 2 years with interest.

6. How much will they have to pay if borrowed from bank A?

A. Tk. 60,000 B. Tk. 70,000

C. Tk. 72,000 D. Tk. 74,346

7. How much interest be paid if borrowed from bank B?

A. Tk. 5,000 B. Tk. 10,000

C. Tk. 11,019 D. Tk. 11,020

8. In selecting bank, the friends of the stem will consider—

i. future value of money

ii. present value of money

iii. effective interest rate

Which one of the following is correct?

A. i & ii B. i & iii C. ii & iii D. i, ii & iii

Creative Questions

1. Mr. Robin and Rakib, after completing their studies, set up two different projects on their father's waste land. When Robin needed to buy a big machine for his project, he took a loan of 8 lakh taka from Grameen Mahajan at a compound interest rate of 2% per month. On the other hand, his brother Rakib, hoping to get 5 lakh taka after 6 years, wants to deposit some of his project money in "Asha" Bank. "Jaba" Bank has offered him 10% interest with semiannually and "Beli" Bank has offered him 9.5% interest per quarter.

   A. What is discounting?
   B. Explain the importance of time value of money in borrowing decisions.
   C. Determine Mr. Robin's actual interest rate (EAR) in borrowing.
   D. Which of Mr. Rakib's proposals between "Jaba" and "Beli" Banks do you think should be accepted? Give your reasoning based on present value.

2. Mr. Farhad Hossain wants to keep Tk 10 lac at 10% interest rate for 10 years in Padma Bank. But his wife Salma suggested to purchase land in municipality, where in 8 years land value will be double and thus it ensures extra earning of Tk 2 lac. Mr. Farhad Hossain has become confused.

   A. What is simple interest?
   B. Explain the factors which differentiate between present value and future value.
   C. According to the condition of Padma Bank, calculate the future value of Mr. Farhad Hossain’s money.
   D. Which sector should Mr. Farhad Hossain select for investment? Give your opinion.

Short Questions

1. What is meant by the time value of money?
2. Explain the importance of the value of time in project evaluation.
3. What is meant by opportunity cost?
4. What is meant by compound interest? Explain.
5. What is the compounding method? Explain.
6. Explain the 'Rule of 72' method.

Chapter Five

Risk and Uncertainty

Risk and uncertainty create obstacles in fulfilling goals for business organizations, investors and others; and we generally observe a deviation between the expected results and realized results of firms and investors. From this deviation risk arises. This risk plays an important role in making decisions by firms and investors. That is why it becomes necessary to recognize and measure risks before taking any business decision. In this chapter we will learn about different aspects of risks and uncertainty.





After reading this chapter we shall be able to –

- able to explain the concept of risk and uncertainty.
- identify the source of different types of risk and uncertainty.
- analyze the impact of risk and uncertainty on financial decisions.
- ascertain the difference between risk-free income and risky income.
- explain the financial decision making process by using standard deviation.

5.1 Introduction

Rohan is a student of class nine. He expects to score GPA 5 in his SSC examination. Mr. Rashed is a farmer. He expects to get a good harvest from his lands. Sumana is a final year student of BBA program of Dhaka University. He expects to join a good job after completing his BBA degree. Here obtaining a GPA 5 by Rohan, getting good harvest by Mr. Rashed and joining a good job by Sumana, everything is uncertain, because every event here is related with the future. Rohan may or may not achieve GPA 5; Mr. Rashed may or may not get good crops from his farm, and Sumana may or may not get a good job offer. Thus people often face different kinds of uncertainties in their personal life as well in their businesses. For example, whether a firm can maintain its high sales volume in future, whether it will be able to earn the rate of return as expected, whether it will be able to purchase raw materials at the expected price, each of these and most other issues have a great deal of uncertainty. In the same way, an investor faces uncertainty in getting expected return by buying a share of stock, or a company faces uncertainty in earning expected cash-flow by making investment in long term projects.

Because of these uncertainties the realized return of any firm gets higher or lower than expected return. The possibility of actual results to be different from the expected results is known as risk. For example, the company was expecting to earn a return of 20% next year but could earn only 15%. Here the deviation of 5% is the source of risk. Few more examples are shown below to explain risk:

Assume that a company expected that it would be able to sell goods worth Tk. 5.0 million, Tk. 6.5 million and Tk. 7.5 million in the next three years. But at the end of these three years the company found that its actual sales in those years were Tk. 4.5 million, Tk. 6.6 million, and Tk. 7.1 million. An investor purchased the shares of a company with the expectation of earning dividends of Tk. 15 per share only to find at the end of the year that he has ended up receiving a dividend of only Tk. 10 per share. Thus investors and firms find variations between the expected results and actual results from almost all of their decisions and the probabilities of those variations create risk. For example, when the investor expects to receive 15 percent dividend but receives 20 percent dividend instead, the extra 5 percent dividend is considered as the source of risk. This is a risk because the investor had no idea beforehand why the realized return was higher than the anticipated return.

Another example of risk is like this. We have received from the first of the two investments 10 percent return in last three years each. Our rates of return from the second investment were 5%, 10%, and 15% in the last three years respectively. Though the average return from both the investments was equal, that is 10% but the first investment is considered as risk-free while the second investment is risky. The reason is that one of the concepts of risk is the ups and downs or volatility of rate of return. The higher the volatility, the higher the risk is; and where there is no volatility, there is no risk.

5.2 Differences between Risk and Uncertainty

Though risk arises from uncertainty, there are some differences between these two concepts. Firstly, not all uncertainties are risks. It has been said before that only the possibilities of occurring unfavorable events are risks. If there is no possibility of occurring unfavorable events then it is not considered as risks. In other words, the part of uncertainty that can be measured is called risk. Some uncertainties are not measurable. For example, the Chief Executive Officer of a company may die and it is an uncertainty, but this uncertainty cannot be measured. As a result, this uncertainty is not called a risk. Secondly, as risk can be measured, it can be controlled by applying different techniques. But uncertainties cannot be controlled or avoided. For example, the office building of a firm can be destroyed due to earthquake, but as earthquakes are beyond the controls of the firm, it cannot avoid the uncertainty. On the other hand, the possibility that sales of the firm will decline in the next year is a risk because, this risk can be measured and the firm can take several steps to reduce this risk such as, it can sell its products in advance.

Activity: Prepare a list of probable risks of a poultry farm.

5.3 Sources of Risks

A certain amount of risk is associated with every decision of a firm. Because of these risks, firms face the uncertainty of not achieving their desired outcomes. This is why firms need to manage these risks properly. To manage the risks properly, it is necessary to understand the sources and types of risks the firm is facing. In this regard, the perspective of the business organizations or firms is different from that of investors. The sources of risk from different perspectives are discussed below:

From the Perspective of Business Firms

A. Business Risk: To run a business organization, successfully a business needs to incur different operational costs such as, cost for raw materials, wages and salary, office rent, insurance etc. Business risks may arise from the inability to meet these costs. The ability of the firm to meet its operating costs depends on the combination between its stability of sales return and operational cost, that is, the proportion between fixed and variable costs. If the revenue earnings are volatile, that is, in some phases the sales return is high but in other phases it gets low, the firm will face uncertainty and difficulty in meeting its operating costs. Moreover, if the fixed operational cost such as, rent or insurance expenses are high, the firm also encounters business risks. If the firm collects its fund from only internal sources, and not from any external sources, the risks related with earning is known as business risk. The sources of this risk are change in price of the products, change in the sales volume, change in purchase price of factors of production, and tendency to have excessive fixed costs etc.

B. Financial Risk: This risk is created from financing from external sources. The firm which has high amount of capital collected through loans is more exposed to this financial risk. It happens because it is compulsory to pay interest for the debt capital. On the contrary, financing from internal source does not obligate the firm to distribute any dividend among the shareholders. As a result, if a firm using debt capital fails to earn any profit and fails to pay the loan, the creditors may take legal action against the firm, and consequently, it may be forced to close its business. Use of debt financing creates the obligation to pay interest in addition to the principal amount. For example, if a company sells bonds worth Tk. 50 lakhs at a rate of 15% interest and maturity period of 5 years, then it has to pay Tk. 750,000 as interest per year and Tk. 50 lakhs at the at end of five years. Generally the company repays the debt capital from the cash flow generated from investments made by using the debt capital. If for any reason, the company cannot earn enough cash flow from its investments, it may become unable to repay its debt obligations. If it cannot make debt repayment for a long period of time, the creditors may take legal action against the debtor company which may force the company to be bankrupt. Hence, the risk that is created from the inability to repay debt obligations is known as financial risk.

Activity: Identify the differences between business risk and financial risk.

From the Perspective of Investors

A. Interest Rate Risk: The investors who buy bond, debentures etc. have to face interest rate risk. The reason is that the value of their investments moves upward or downward with the change in market interest rate. If interest rate increases, market value of these investments that is bonds and debentures goes down, and if the interest rate decreases, their value goes up. The possibility of decreasing the value of investments as a result of change in market interest rate is known as interest rate risk.

B. Liquidity Risk: After investing money in stocks, bonds and debentures, shareholders may require to encash their investments. It is expected that shareholders will be able to sell their investments at a reasonable price to convert those investments into cash. Liquidity risk is introduced when they fail to sell their assets easily and at a reasonable price. Liquidity risk depends on size and structure of the market at which investments such as stocks, bonds and debentures are traded. This risk is higher for sole proprietorship and partnership firms. Because these firms cannot sell their fixed and current assets easily and at a good price in case of urgent need for cash. On the contrary, when an investor purchases the share of a company, the concerns for liquidity risk is generally low. The reason is that he or she can sell that stock any time in the secondary market or share market if required. For capital market, if any investor buys bond or debenture of a company and takes part in banking activities or involves in foreign business, in that case, they have to face liquidity risk . Because we have only limited number of buyers of bond or debentures compared to the number of buyers of stocks in the capital market. In that case liquidating of those investments becomes time consuming and costly.

5.4 Implications of Risks

The fact that risk has important roles in the decision making process of business organizations shows the significance of risks.

Firstly, as already stated, risk has impacts on the success of any company, that is, in fulfilling the overall goal of the company. Risk has been defined as the probability of experiencing any unexpected outcome or events. Therefore, if the company anticipates and analyzes different future conditions and takes necessary measures in its decision making process, it can avoid unexpected losses. For example, a company has set up its production plant at the bank of a river considering only the convenience of transporting its rawmaterials. But if the plant is unfortunately destroyed by high floodwater and river bank erosion after

a couple of years, the company will face a huge amount of loss and it will fail to achieve any success. But if the company considered any possibility of such a disaster beforehand, it would have avoided setting up the plant just by the river and could possibly be turned into a successful company.

Secondly, earning profit by a business organization depends on the demand of its products in the market. Therefore, before starting a business, a firm should analyze the demand of its products and make a realistic estimate of its sales. In other words, it would plan ahead and implement the plan wisely. The actual demand can be higher or lower than the estimated demand. If the actual sales are lower than the expected sales, then the firm cannot earn enough profit. For example, a firm produces a large volume of umbrella predicting excessive rainfall in a season. But if the firm finds that rainfall is not as much as it was predicted, there are chances that a portion of the umbrellas will remain unsold. As a result, the firm will fail to earn sufficient profit. But if the firm could add some more products in its production line then demand of those products could be unaffected by the volume of rainfall and the firm could earn its targeted profit.

5.5 Risk-free Return and Risky Return

Not all returns are risky; there are some returns which are considered risk-free. For such a return, the actual return is always the same as expected return. If you keep a time deposit in a bank, you may not find any significant difference between the expected return and the realized return. This is a kind of risk-free return. Generally returns from treasury bills and treasury bonds issued by the government are considered risk free. As these are issued by the government, these investments are considered risk-free. As the earnings from these securities are fixed, they are deemed to be free from any risk.

The probable deviation of actual earning from the expected earning is the risk. Generally one part of the return is risk free and the other part is risky. The returns which carry risk are known as risky returns. For example, when an investor invests in purchasing common stock of a company, there is no certainty that the actual dividends will be as much as the expected dividends. The earning of the company in future years in combination with some other relevant issues will determine the amount of dividend to be distributed by the company in those years. That is why returns of common stock investors are considered as risky returns. Moreover, return from common stock is recognized as the most risky return as common stock does not offer investors any fixed earnings.

Formula for average rate of return or expected rate of return: $\bar{R} = \frac{\text{Total profit}}{\text{No.of years}} = \frac{\Sigma R}{N}$

5.6 Measurement of Risk and Uncertainty

Measurement of risk is essential for successful operation of any business organization. As risk is formed by the deviation of actual risk from the expected risk, the higher the deviation, the higher the risk. Similarly, the lower this deviation, the lower the risk. Thus it is natural that risk can be measured by measuring the deviation of actual return from expected return.

There are different methods of calculating risk. Different methods are applied according to the requirement and condition. In this stage we will apply standard deviation as the measurement of risk.

Standard Deviation: We can use standard deviation to measure the risk of both previous return and expected future return. This is a statistical method. The formula of standard deviation is given below:

$$\text{Standard deviation} = \sqrt{\frac{\sum (\text{rate of return-average rate of return})^2}{n-1}} \text{ or } (\sigma)=\sqrt{\frac{\Sigma(R-\bar{R})^2}{n-1}}$$

Here, R = Rate of return, $\bar{R}$ = Average rate of return, σ = Standard deviation
n = number of years
Σ(Rate of Return – Average Rate of Return)^2 = sum of squares of the deviations from previous rate of return to average previous rate of return

Example: A project generated returns over five years from 2015 to 2019 as follows: 20%, 5%, -5%, 15%, and 30%, respectively. Calculate the average return and standard deviation.

$$\text{Avarage return } \bar{R} = \frac{\Sigma R}{N} = \frac{20+5+(-5)+15+30}{5}$$

$$= \frac{65}{5} = 13\%$$

$$\text{Standard deviation } \sigma = \sqrt{\frac{\Sigma(R-\bar{R})^2}{n-1}}$$

$$= \sqrt{\frac{(20-13)^2+(5-13)^2+(-5-13)^2+(15-13)^2+(30-13)^2}{5-1}}$$

$$= \sqrt{182.5}$$

$$= 13.5\%$$

Alternative solution

Year	Rate of Return (%)	Deviation from the Average (Return – Average) (%)	Square of deviation (%)
2015	20	(20 – 13) = 7	(7X7)=49
2016	5	(5 - 13) = -8	(-8X-8)=64
2017	-5	(-5 - 13) = -18	(-18X-18)=324
2018	15	(15 - 13) = 2	(2X2)=4
2019	30	(30 - 13) = 17	(17X17)=289
Total	65%	Total of squared deviations	730
Average Rate of Return	65/5 = 13%	Average of squared deviation = 730/(n-1)	182.5

Standard deviation $= \sqrt{182.5}$

$= 13.5\%$

If we divide the total of five years' rate of return by 5, we will get the average rate of return for last five years. The value is shown in the table as 13%. Then we have to calculate the standard deviation for measuring risk. At first we will find out the deviations of average return or 13% from each year's rate of return. In the next column we compute the square of the deviations. Then the total of the squared deviations are computed as 730. We will divide it by (n-1) or (5-1) or 4 to get variance. The divisor will be always less by 1 than the number of years for which returns are given. Finally the standard deviation will be calculated by finding the square root of the variance. In this example it is 13.5%. As a result, considering the income from 2015 to 2019, our average rate of return is 13% and risk is 13.5%. We can take decisions for the future by considering this return and risk measurement. For example: if we have an alternative project which offers us 13% return with 15% standard deviation or risk, then we will be better-off by accepting the first project. Because for the same level of return, lower risk is more acceptable than higher risk. Again, if there is an alternative to a project where we will have same risk but lower return, the original project will be more acceptable than the alternative one. The reason is that for the same level of risk, higher rate of return is more desirable.

Decision-making Principles: Generally higher value of standard deviation indicates higher risk and lower value indicates lower risk. Lower risk in the same level of return or higher return in the same level of risk is more acceptable.

Activity: The rates of return for an investor in last ten years are 10%, 20%, -5%, 15%, 35%, 10%, 25%,30%, 12%, and 0% respectively. Determine the standard deviation of rate of return for the investor.

Sample Questions

Multiple Choice Questions

1. What is the consequence of inability to pay office expenses, insurance etc.?

A. financial risk B. shortage of capital
C. business risk D. uncertainty of profit

2. In which of the areas of business organizations does risk play a significant role?

A. in taking decisions B. in making plan
C. in management D. in collecting capital

3. Risk is measured by-

i. applying various techniques
ii. through proper plan
iii. decreasing the cost of business

Which one of the following is correct?

A. i and ii B. ii and iii C. i and iii D. i, ii and iii

Read the following stem and answer questions 4 and 5.

Mr. Hasan is a garment manufacturer. This year, he took a loan from the bank to produce more winter clothes in the hope of higher profits. But this year, his winter clothes remained unsold. As a result, he is struggling to pay the interest on the loan, the wages of the workers, and the shop rent.

4) What type of risk has Mr. Hasan faced in the stem?

i) Business risk
ii) Financial risk
iii) Liquidity risk

Which of the following is correct?

a) i and ii b) i and iii
c) ii and iii d) i, ii and iii

5) In the situation that arises, Mr. Hasan should do-

A. Prepare alternative products
B. Increase the price of the product
C. Increase the production of winter clothes
D. Reduce the price of the product

Creative questions

1. Mr. Rubel has an opportunity to invest in two projects named 'Biva and Luba'. He has invested in the Biva project with his own savings. The rate of return received from the 'Biva" project in the last 5 years is 10%,22% 6%,

-5% and 5% respectively. On the other hand, he has invested in the "Luba" project by taking a loan from the bank at the rate of 12%. The average return of the"Luba" project is 5% and the standard deviation is15%. Due to financial problems, he is currently thinking of closing a project.

A. What is risk?

B. "Not all uncertainties are risks. Explain.

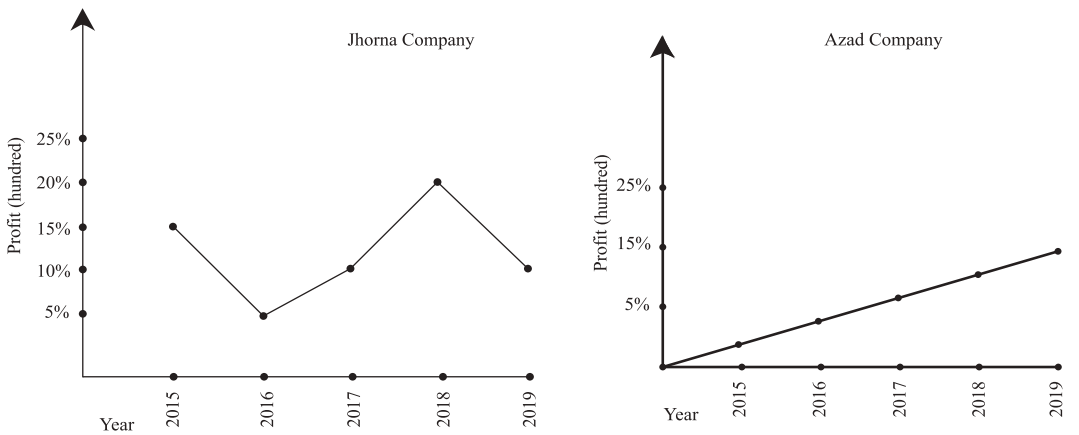
C. From the perspective of a business organization, what type of risk exists in Mr. Rubel's "Luba" project? Explain.

D. Which project do you think Mr. Rubel should close at present? Detemine the standard deviation of the "Biva" project and give your opinion.

2. Name of the investor – Mr Shafiqur Rahman

Name of the organizations where he has invested: a) Jhorna Company Limited

b) Azad Company Limited



A. What is risk-free return?

B. Explain why the liquidity risk of sole proprietorships and partnerships is higher than that of companies.

C. Calculate standard deviation of Jhorna Company.

D. Analyze the effects of investments of Mr Shafiqur Rahman in Azad Company

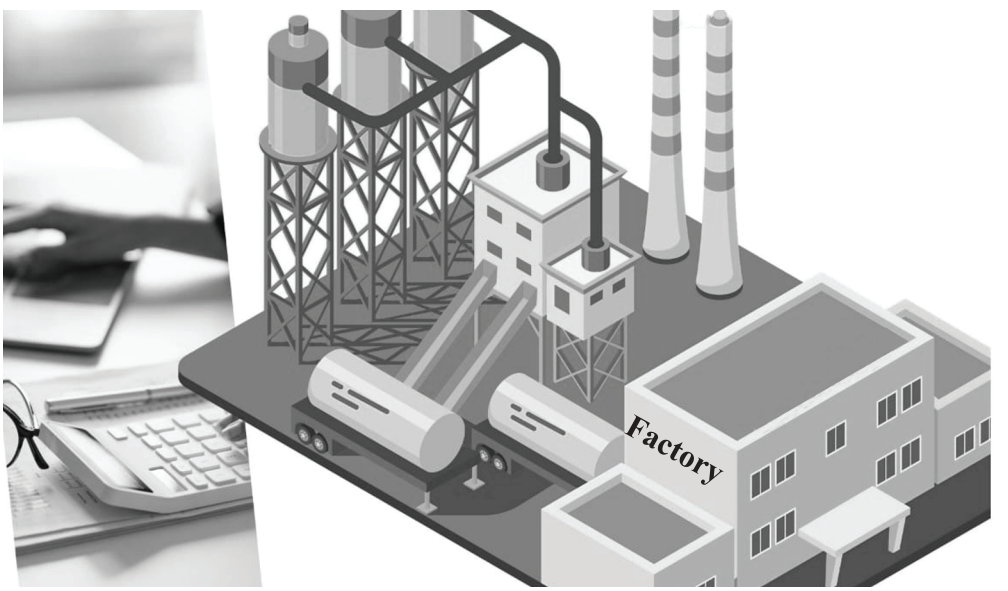
Short questions

1. How risk is measured? Explain.
2. The reason why actual results are less than expected in busness? Explain.
3. "Not all uncertainty is risk" - Explain.
4. Why liquidity risk exists? Explain.
5. What risks bond investors face? Explain.

Chapter Six

Capital Budgeting

Success and existence of any business organization depends on the long term investment decision. To run the business most of the time an entrepreneur has to take different investment decisions regarding fixed assets like purchase of land, building, furniture, equipments etc., and replacement of these fixed assets, modernization of production process, development of new products. Whether these long term decision will be profitable or not for the company. It requires following different methods and principles for the proper evaluation of different alternative investment decision. Throughout this chapter we will be able to know about different financial methods, principles those are used in evaluation process for taking long term investment decision.



After reading this chapter we shall be able to–

- discuss the concept of capital budgeting.
- analyze the importance and objectives of capital budgeting.
- apply different methods of capital budgeting.
- identify the limitations of various techniques of capital budgeting.

6.1 Capital Budgeting

Three friends Rahim, Karim and Shankar run their individual business. Rahim has been thinking to purchase a fridge for his grocery shop for last few days. Six months back, Karim started his tailoring business with a sewing machine. Guessing the increasing demand he thought to purchase a new machine. On the other side, to start a saloon Shankar is thinking to purchase some essential furniture and hair cutting machine. Here, fridge purchase for grocery shop, sewing machine purchase for tailoring shop and wheel chair, hair cutting machine purchase for saloon are all long term investment decisions. Whether these long term investment decisions will be profitable or not require an evaluation process of finance. Capital budgeting is such kind of evaluation process. In this respect, income and expenditure of every investment decision or project have to be estimated. After completing the estimation, net cash flow or net profit of this investment decision or project is being measured. Here income means, earned money from selling and expenditure means, raw material expenses, selling expenses and depreciation expenses and other expenses. If expenditure is deducted from the income, the remaining is the profit before tax; if tax is deducted from the profit before tax, the remaining is the net profit. Again if depreciation is added to this net profit, we will get cash inflow. Comparing this inflow with the outflow or initial investment if inflow appears higher than outflow, then this investment decision considered as profitable and can be accepted.

So, it can be said that capital budgeting is a process related with long term investment decision. This decision process starts from the purchase of fixed asset and include modernization, replacement of these assets. Fixed asset, business expansion, new product development are also within the scope of this decision.

6.2 Importance of capital budgeting

Capital budgeting is the key to success of business. Business is directly benefited by the practical and proper capital budgeting decision. If capital budgeting technique cannot be applied properly, huge loss will incur in business.

Here the importance of capital budgeting is given below:

1. Profit Oriented: Main objective of business is profit earning. Capital budgeting contributes to profit earning. Generally, a company invests in income oriented fixed asset with the expectation of earning profit. So profit depends on the capital budgeting decision. By purchasing a fridge, grocer's sales will increase. Thus profitability of this shop will start to increase. But if people of this locality

are not habituated in cold drinks or in ice-cream,in such case, the decision of purchasing a fridge will not benefit the business. Therefore, a good investment decision can ensure sufficient income for the business, while a faulty investment decision can cause the business to face losses. Therefore, it can be said that capital budgeting decisions are of particular importance in the future prosperity of a business.

2. Voluminous size of investment: Generally, a great sum of fund is involved in making different capital decisions for purchase, addition, modernization and replacement of fixed assets. This is why usually mistakes in decisions cannot be amended if there is any; even if amendment is possible, huge compensation has to be incurred. For example, considering that a business will get electricity and gas supply in due time, a company decides to establish a factory near Dhaka. However, after establishing the factory, they find that government has taken decision to stop providing new connections for electricity and gas supply. In this scenario, the factory won't be able to start production but the company may have taken a large sum of loan and it has to repay interest regularly. So, such type of mistakes can turn the business into a failure. If it were about a small sum of money, funding could be done from somewhere else; but there is no such scope since it's a huge investment. If decision is taken to sell the project for repaying bank loan, suitable price cannot be received because the project has already been unprofitable. So the business has to incur a great loss.

3. Risk oriented: Most of the factors used in the evaluation process of capital budgeting decision are based on future which is always uncertain. For example: whether installation will be profitable or not depends on the expected market demand, amount of selling and quantity of production etc. Calculation of cash inflow and cash outflow may not occur as per expectation. Thus, capital budgeting will be proven as wrong decision. It can be explained in another way. Let's assume that an umbrella producer expands his business by purchasing some new capacity machine by apprehending the huge rainfall. If rainfall doesn't occur as per producer's expectation, business has to face losses. In long term financing risk calculation is also very important consideration. Capital budgeting techniques play important role in risk managemet.

6.3 Application of capital budgeting

Capital Budgeting is applied in all aspects of long term investment decision. Capital budgeting typically involves substantial expenditures and this decision depends on planned financing. Now we will discuss some popular application of capital budgeting decision.

Fixed Asset Purchase: To start a new business, every business firm has to purchase fixed assets like land, building, equipment, furniture etc. At the time of starting a business a grocer has to take different purchase decisions like, fridge purchase, orders to make some furniture (shelf), renovation expenses etc. Again in such a way, an owner of a restaurant requires to purchase chair, table, fridge and security money for holding the possession of a room for restaurant. In any type of business which incurs fixed cost requires to apply capital budgeting process before purchase any fixed asset. In running business sometimes fixed asset may become obsolete. That time replacement is required for the fixed asset. Business people take this decision by the application of capital budgeting decision.

Business expansion with the intention to increase the production capacity: In the case of a running institution, production capacity may be required to increase after starting its business. By the installation of high capacity machine this purpose can be fulfilled. So, decision of purchasing a high capacity machine can be taken after proper evaluation by the application of capital budgeting technique. For example, though in a tailoring shop there is a sewing machine but considering the high demand in Eid festival, shop owner can take decision of purchasing a new machine. To take this decision, owner calculates the cost of purchasing a new machine and by this investment how much income will be increased is another most important measuring factor in purchase decision. All these calculations can be done by the capital budgeting technique.

Product diversification: New product may need to be marketed along with the existing products in the market to extend the business of the company. For example, with the production of Mango Juice some companies may take decision to produce Apple Juice or Orange Juice. In case of marketing a new product, decision maker at first has to collect information regarding the life of new product; calculate the cost of production, market demand, administrative cost and expected income. To find out all these, application of the capital budgeting decision is used.

Replacement and modernization: Replacement and modernization of production process are needed as per requirement of business. For example, if a saloon owner thinks if he can afford to purchase some new or modern technology based machine to increase the efficiency in his hair cutting job, he needs to make a comparison between the incremental cash outlay of this decision and the incremental cash inflow by this decision. If incremental cash inflow is higher than the incremental cash outlay, replacement decision will be profitable. It is another application of capital budgeting.

6.4 Process of Capital Budgeting

Steps required for Capital Budgeting in long term investment decision:

A. To estimate cash flow
B. Discount rate measurement
C. Selection and application of capital budgeting technique

A. To Estimate Cash Flow: Long term decision includes machinery purchase, business expansion, technological up gradation of production process and other decisions associated with huge amount of cash outflow. Cash flow estimation is the first step of capital budgeting decision. To estimate the cash inflow, every business has to identify the expected sells amount, expected current expenses, cost of capital and other expenses. In business, cash inflow occurs from selling and outflow occurs from current expenses, cost of capital and from other expenses. It was previously said that for calculation of total sells amount, owner has to estimate the expected selling price, expected sells amount at that price and expected market demand. Every year business earns income by selling the products. We can find out net cash inflow from this sales revenue. If any mistake occurs in estimation, it influences the business decisions. In the same way, cash outflow occurs from different expenses. Estimation requires finding out the current cost and fixed cost.Current expense refer to expenses for raw materials, workers' wages, and other operating costs.Fixed costs refer to office rent, insurance expenses, depreciation, and other similar expenses.According to estimates, each current and fixed expense is projected in advance with great care.If any of these cost estimates are incorrect, it can lead to errors in capital budgeting decisions, which may cause losses for the institution.

B. Discount rate measurement: By the use of discount rate estimated cash flow will have to be converted into a present value. You have known in Time Value chapter though the amount of cash flow in the future consecutive years are equal, in present value consideration they are not same. Present value of the future cash flow differs with the project expected life and discount rate. That means the later the cash flow the lesser the present value if other things remain equal. As cash flow of any project is earned for many years, so to select a suitable project or investment opportunity business needs to apply the capital budgeting techniques to discount the future cash flows. Through this discounting process present value of the future cash flows can be calculated. If present value of cash inflow is higher than the present value of cash outflow, then this investment decision can be taken. Generally in capital budgeting decision cost of capital can be

considered as discount rate. You will be informed about the cost of capital in next chapter.

C. Selection and application of capital budgeting technique: After the estimation of cash flow and discount rate, capital budgeting technique is selected. Different techniques of capital budgeting are being used in project selection.

But all techniques are not accepted equally. Every technique has some advantages and disadvantages. Project is selected by considering the nature, risk and other issues of the project.

6.5 Techniques of Capital Budgeting

Different techniques are used in guiding the capital budgeting decision. Selection of profitable project in accordance with the objective is the main target of these techniques. Example: Sewing machine of tailoring shop, fridge of a grocer and hair cutting machine in saloon are all long term investment decision.

Techniques of the capital budgeting are as follows:

1. ARR (Average Rate of Return) Method.
2. PBP (Pay Back Period) Method
3. NPV (Net Present Value) Method
4. IRR (Internal Rate of Return) Method

1. ARR Method

Easy technique of capital budgeting is ARR method. Information collected from the financial report of the institution this rate is calculated. In this technique net profit is being considered in lieu of expected cash flow. You have learned, if all cost including tax is deducted from the sells revenue then net profit comes out. If average net profit is divided by the average investment then average rate of profit comes out.

$$\text{It means average rate of return (ARR)} = \frac{\text{Average profit after tax}}{\text{Average investment}} \times 100$$

$$= \frac{\dfrac{\text{Total profit after tax}}{n}}{\dfrac{\text{Initial investment + salvage value}}{2}}$$

In this technique, if expected total profit is divided by the total year then average profit comes out and if investment is divided by 2, average investment comes out.

Decision Principle

- The more the ARR, the better. If project is financed by taking loan from

the bank then bank demands interest. Loan will not be granted if ARR is lower. For some companies minimum ARR remains fixed by the company's administrative decision. If calculated ARR for a specific project is lower than the minimum acceptable ARR, this project will be rejected. On the other side, if calculated ARR is higher than the minimum acceptable ARR, this project will be accepted.

- In case of multiple projects, projects are arranged in an order by following the above principle. Among these, necessary numbers of projects are selected by considering the financial capability.

Equation used in ARR calculation is very simple to understand. Moreover, this is popular with many people as necessary information can be retrieved from financial statement. But this method has some complicacy. Firstly: In ARR method net profit is used rather than cash flow. So, some people thought that this method is not a complete technique. Secondly: This method doesn't consider the time value of money. But, present value of cash flow comes from different years of project life, are not same. As value of today's Tk 1 is not as same as the value of Tk 1 in future. But, ARR method considers all cash flows as same value and it is the biggest limitation of the method. Now, through an example, we will describe ARR Method.

Example: Let assume, your father is thinking to invest in two projects A & B. Elaborate explanation of these two projects are given below:

Project-A: Project duration is 3 years and Tk. 1 crore is needed as initial capital. If this project is implemented, in 3 years expected sales will be Tk. 8 lac, Tk. 199 lac and Tk. 80 lac respectively and expected current cost will be 40% of sales. So, at the rate of 40% current cost will be Tk. 3.20 lac, Tk. 79.60 lac and Tk. 32 lac respectively. This current cost includes the cost for raw material, labor wages, electricity bill etc. Then fixed cost comes. Fixed cost will not be changed with the change of production quantity like, rent of building. So, expected fixed cost is Tk. 5 lac per year for the coming 3 years beside current cost. Then depreciation cost comes. In every project investment has to be made for machinery. Investment of 1 crore taka showed in this project is the cost of machineries. Depreciation is determined from this.

Dividing the amount of investment by the life of the investment depreciation cost will be calculated. As sales will continue for 3 years so, life of the project can be counted as 3 years. Depreciation cost will be Tk. 33.33 lac. If current cost fixed cost and depreciation cost is deducted from the sells revenue then project's taxable income will come out. Assume tax rate is 30%. This information shows

that in the first year in lieu of profit loss incur Tk. 33.53 lac. But in 2nd year and 3rd year profit will be Tk. 81.07 and 9.67 lac respectively. Here it is mentionable that, if profit earned as tax is calculated at the rate of 30% in this way, tax will be deducted also from the loss of 1st year with the intension of lowering the amount of loss and also of lowering the per year tax. If we assume that from the other project of the enterprise, taxable income is occurs and in this project loss occurs, then total payable tax of the enterprise will be reduced at same rate. In project A for the consecutive 3 years expected net loss for 1st year is Tk 23.47 lac, in second year net profit is tk 56.75 lac and in 3rd year net profit is Tk 6.77 lac.

As per above information ARR of the project 'A' can be calculated in following ways:

Project-A

Description	Amount (Lac)		
	Year 1	Year 2	Year 3
Sales	8.00	199.00	80.00
Current cost (on sales 40%)	(3.20)	(79.60)	(32.00)
Fixed cost	(5.00)	(5.00)	(5.00)
Depreciation	(33.33)	(33.33)	(33.33)
Taxable Profit/Loss	(33.53)	81.07	9.67
Tax (30%)	(10.06)	(24.32)	(2.90)
Profit\loss after tax	(23.47)	56.75	6.77

Here, Average profit $= \frac{-23.47+56.75+6.77}{3}$ = Tk 13.35 lac

Average Investment $= \frac{100+0}{2}$ = Tk 50 lac

So, Average Rate of Return (ARR) $= \frac{\text{Average profit after tax}}{\text{Average investment}} \times 100$

$= \frac{13.35}{50} \times 100 = 26.70\%$

Project-B: Similar to project - A project - B also has 3 years life and initial investment is assumed Tk 1 crore. In 3 years from this project sales is expected to be Tk 151 lac, Tk 110 lac, Tk 49 lac respectively. Forecasted current cost will be 30% of total sales amount. Fixed cost is estimated Tk 20 lac and depreciation is Tk 33.33 lac per year. Like project - A forecasted tax rate is 30%.

As per above information ARR of the project 'B' can be calculated in the following ways:

Project-B

Description	Year 1 (Tk. Lac)	Year 2 (Tk. Lac)	Year 3 (Tk. Lac)
Sales	151.00	110.00	49.00
Variable cost (30%)	(45.30)	(33.00)	(14.70)
Fixed Cost	(20.00)	(20.00)	(20.00)
Depreciation	(33.33)	(33.33)	(33.33)
Taxable income	52.37	23.67	(19.03)
Tax (30%)	(15.71)	(7.10)	(5.71)
Profit after tax	36.66	16.57	(13.32)

Here,

Average profit = $\frac{36.66+16.57-13.32}{3}$ lac = Tk 13.30 lac.

Average investment = $\frac{100+0}{2}$ lac = Tk 50 lac.

N.B.: Due to depreciation system value of the project becomes zero (0) at the end of the duration.

So, Average Rate of Return (ARR) = $\frac{13.30}{50} \times 100 = 26.60\%$

Here it is mentionable that ARR of the two projects are not same. Here ARR of project "A" is 26.70% and project "B" is 26.60%. ARR of project "A" is higher, so your father will decide to invest in project "A".

Activity: The initial investment of a project of 5 years duration is Tk 3 crore. Forecasted sales are Tk 60 lac, Tk 2 crore, Tk 1.8 crore, Tk 2.4 crore and Tk 1.6 crore. Fixed cost is yearly Tk 15 lac, variable cost is 35% on sales and tax rate is 30%. Determine ARR of the project.

2 Pay-Back Period Method

Pay-Back Period Method gives the answer about after how much time the invested capital will come back. This method is very popular and easy method of project evaluation or long term investment decision. The pay-back period is

the amount of time required for the firm to recover its initial investment in project, as calculated from cash inflows. If inflow from business investments and projects are equal, pay back time can be calculated by dividing invested amount of money by yearly cash inflow.

$$\text{Pay-Back Period (PBP)} = \frac{\text{Investment (NCO)}}{\text{Equal Cash Flow}}$$

Let assume, owner of a tailor shop requires Tk.15000 for purchasing the machine. In consecutive 4 years he will ensure yearly inflow of Tk.5000 by utilizing this machine. In that case Pay-Back Period will be:

$$\text{(PBP)} = \frac{\text{Tk.15000}}{\text{Tk.5000}} = 3 \text{ years}$$

Inflow coming from the business may not be equal in each year of project life (mixed stream of cash flow). That case Pay back period is calculated by using cumulative cash flow in each year. That means, each year's cash inflow is continually added to the inflow of the next year and then as per formula used in the next example pay back period is determined.

In example used for ARR method 3 years' net profits of project 'A' were consecutively-Tk. -23.47 lac, 56.75 lac and 6.77 lac. In Pay back period and in other method of capital budgeting cash flow is being used in exchange of net profit. Generally cash flow is found by adding the depreciation with the net profit. So, if calculated net profit of project- A is added with the depreciation of that project, then cash flow can be calculated.

Description	Year 1 (Tk. lac)	Year 2 (Tk. lac)	Year 3 (Tk. lac)
Net profit	(23.47)	56.75	6.77
Add depreciation	33.33	33.33	33.33
Cash flow (approximate)	10	90	40

N.B. To determine cash flow fractions are avoided.

Cash flow can be calculated as below:

Year	Cash Flow (Tk. lac)	Cumulative Cash Flow (Tk. lac)
1	10	10
2 (A)	90	100 (C)
3	40 (D)	140

From the structure above it is mentionable that in 2 years invested amount is recovered. So pay back period will be 2 years.

Again in ARR method cash flow of project "B" can be calculated by adding the

depreciation cost with the estimated net profit.

Description	Year 1 (Tk. lac)	Year 2 (Tk. lac)	Year 3 (Tk. lac)
Net profit Add: depreciation	36.66 33.33	16.57 33.33	(13.32) 33.33
Cash flow (Approximately)	70	50	20

N.B. To determine cash flow fractions are avoided.
Cash flow can be calculated as below:

Year	Cash Flow (Tk. lac)	Cumulative Cash Flow (Tk. lac)
1 (A)	70	70(C)
2	50 (D)	120
3	20	140

In above structure, it is mentionable that in 1st year Tk.70 lac of total investment is recovered. In 2nd year cash inflow will be Tk. 50 lac but only Tk. 30 lac of total investment is remain left to recover. So to recover Tk. 30 lac pay back period will be 30/50 years = 0.6 years. So pay back period will be 1.6 years.

It can be calculated by following formula:

$$\text{Pay back period (PBP)} = A + \frac{\text{NCO-C}}{\text{Equal Cash Flow}}$$

$$= 1 \text{ year} + \frac{100\text{-}70}{50} \text{ years} \qquad = 1.6 \text{ years}$$

Decision Principle

In Pay back Period Method, the lower the recovery time or pay back period, the more it is an attractive project for investment. Oppositely, larger pay back period indicates more risk of the project.

Again, if many alternative projects are available for the company then those projects are arranged in ascending or descending order. After that most attractive projects are selected depending on the financial capability of the company and remaining are rejected.

In a company, officers in management specify their expected pay back period as a measurement scale. It is specified by the management by considering the different factors like nature of project, risk of the project etc.

Limitations of Pay back Period Method

Pay back method is the easiest and most popular method of capital budegeting. Though this method is very simple to use but cannot fulfill all requirements of the investors. Here some limitations of this method are discussed below:

1. Pay back is not actually a rate of profit. It is the time to recover the investment. After crossing this Pay back Time company will not gain any profit but it ensures the recovery of loss.
2. If there are two or more projects of which the pay back period is lowest is accepted. Pay back period method is not applicable if there is single project.
3. Cash flow entering the business after the Pay back Period is not considered in project evaluation. In project-A Pay back Period was 2 years. In this condition if large amount of inflow comes in 3rd year, it will not be considered and still Payback Period will be 2 years.
4. This method doesn't consider the time value of money. In Time Value chapter we have learnt that Tk.100 of next year is more valuable than Tk. 100 after 5 years. But pay back method does not consider the Time Value of money. Here, each year's inflow is considered equally valuable.

Activity: Let's assume, your father thinks to invest Tk.50,000 in a project. From which in 6 years your father is expecting Tk.10,000, Tk.15,000, Tk.20,000, Tk.10,000, Tk. 20,000 and Tk.30,000 respectively. Calculate its Pay back Period.

But, among all capital budgeting method Net Present Value (NPV) and Internal Rate of Return (IRR) are more acceptable than the other methods. As these methods consider time value, so these can provide more accurate information in project evaluation. In higher class you will be able to know about these two methods.

Sample Questions

Multiple Choice Questions

1. Which is the evaluation method of investment below?
   A. Capital budgeting
   B. Time value of money
   C. Determiningdiscount rate
   D. Future value policy of investment

2. Which is the equation of calculating the payback period?

A. $\frac{\text{cash flow}}{\text{investment}}$ B. $\frac{\text{investment}}{\text{cash flow}}$

C. $\frac{\text{investment}}{\text{yearly cash inflow}}$ D. $\frac{\text{yearly inflow}}{\text{outflow}}$

3. What is called the difference between cash flow and net profit?

A. Initial investment
B. Cash out flow
C. Total current cost
D. Total depreciation

4. Which Technique of capital budgeting is important?

A. Project selection
B. Identify the objective of institution
C. Calculate profitability of project
D. Identify the rate of return

5. Dr. Shamima has founded and directed a hospital by investing her own capital. Which decision will she take through capital budgeting?

A. Medicine procurement
B. X-ray machine purchase
C. Medicine price fixation
D. Color change of hospital building

Read the following stem and answer the questions 6 & 7.

Chief managing director of Shemanto Company Miss. Borna has divided total profit by 4 before calculating the profitability of investment of 4 years without adding depreciation. But total investment has been divided by 2.

6. Which method was followed by Mrs. Borna?

A. Average rate of return
B. Pay back period
C. Net present value
D. Internal rate of return

7. Limitation of the method mentioned in the stem

i. Time value of money is avoided
ii. Value of all cash flow is equal
iii. Divide profit and investment by the different number.

Which one of the following is correct?

A. i & ii B. i & iii
C. ii & iii D. i &ii &iii

Creative Ouestions

1. Mr. Bipul started collecting sugar from March in the hope that the price of sugar would increase due to the increase in tax on sugar in the annual budget of the government. So that he could earn a lot of profit by selling the sugar. Later, he faced a loss due to the decrease in the price of the sugar sold. On the other hand, Mr. Deep wants to install a new machine in his factory which costs 3,00,000 taka and has a life of 5 years. The scrap value is 1,00,000 taka. The annual cash inflow of the machine is 70,000 taka, 90,000 taka, 60,000 taka, 55,000 taka and 40,000 taka respectively.

A. What is the discounting rate?

B. Explain the average rate of return method.

C. Calculate PBP .

D. Evaluate the importance of capital budgeting in Mr. Bipul's decision to purchase sugar.

2. By considering the purchasing power of the consumer, taste etc. Shampoo producing company "Sampy Ltd." wants to accept a project which can produce mini pack shampoo, mid sized shampoo, small sized shampoo and side by side the big size shampoo. By estimating the income and expenditure, this 5 years project requires initial investment of Tk 5 crore and selling amount of Tk 90 lac, Tk 2.4 crore, Tk 3 crore, Tk 2.5 crore and Tk l.6 crore. Other current cost is 30% of sales amount and tax is 25% of taxable income.

A. What is cash inflow?

B. Why capital budgeting is assumption based?

C. Calculate ARR of this project as per instruction given in stem .

D. Evaluate the importance of capital budgeting in project selection of the Sampy Company.

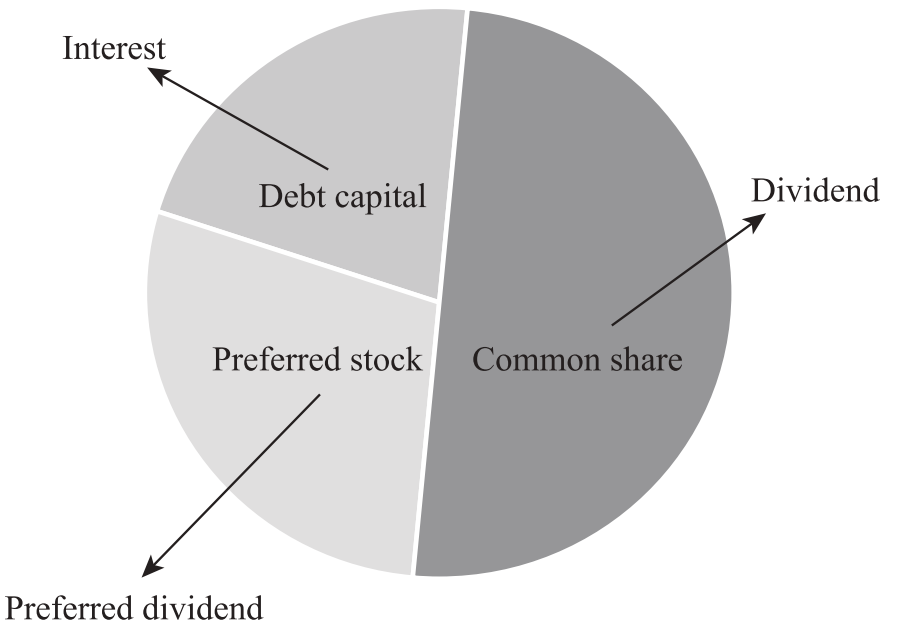
Short questions

1. Why is capital budgeting done?
2. What is discount rate? Explain.
3. What is the key to financial success? Explain.
4. What is meant by product diversification?
5. How is cash flow forecasted?

Chapter Seven

Cost of Capital

Every business enterprise has its own cost of capital. Cost of capital means the cost of funds gathered from different sources. Usually, the expected income of the financers is considered as the cost of capital of the organization. A business enterprise collects its necessary fund from different sources. The costs of capital of different sources are not equal. So, the cost of capital of each of the sources needs to be calculated separately. In this chapter, we shall be able to know about cost of capital, importance of calculating cost of capital, calculating cost of capital of different sources of fund and other related things.



After reading this chapter we shall be able to –

- explain the concept of cost of capital.
- explain the significance of calculating the cost of capital.
- calculate the cost of capital.
- evaluate different sources on the basis of cost of capital.

7.1 Introduction

After the investment decisions of the three friends mentioned in the previous chapter, such as, Rahim's buying a fridge, Karim's buying a sewing machine and Sankar's buying a wheel chair and a hair cutting machine they have to finance for these investments. You have learnt that there are many sources of financing like own capital of the owner, loan from friends, bank loan, loan from other financing organizations etc. Financer of each of these sources has some expected income. Here, the amount which is the expected income of the financer is regarded as the cost of capital of the fund collecting organization. For example, if Rahim takes loan from bank at the interest rate of 15%, his cost of capital will be 15%. Likewise, if Karim collects money for buying a sewing machine from his own, the opportunity cost of that money will be his cost of capital. That is, if it seems that he could earn 15% of the investment by investing that money elsewhere, his cost of capital will be 15%.

Big organizations collect necessary fund for their investment from one or more than one sources. Here, the average rate of the costs of capital of all the sources will be considered as the cost of capital applicable for that business farm. Suppose, a company needs 10 lac taka for investment. The company decides to collect of this 10 lac taka, 5 lac taka by selling shares and 5 lac taka by taking bank loan. The owners of the shares expect 18% income from their investment and the bank agreed to give loan to the farm at 12% rate of interest. As a result, cost of capital of the share selling source of the farm will be 18% and that of bank loan source will be 12%. The rate of the cost of capital that we get by making an average of the costs of capital of the two sources will be the average cost of capital of that farm, that is, (18% x .50 + 12% x .50) = 15% . It is mentionable here that as the cost of capital of the farm is 15%, the farm has to earn minimum 15% income before taking the cost of fund into account, otherwise the farm will not be able to meet the expected income of the shareholders and that of the bank. Therefore, it could be said that the amount of money that is to be earned earn as minimum to meet the expected income of the owners of the fund collected from different soureces is called cost of fund.

7.2 Significance of Calculating Cost of Capital

Cost of capital plays an important role in taking different decisions in the financial management of a company. Cost of capital is applied to all steps starting from choosing the right source of financing according to the need of the company to the assessment of the investment opportunity or evaluation of the project. The significance of cost of capital is given below:

First: Investment is decision-related. Suppose, a company sets up a factory taking 50 lac taka loan from Sonali Bank at the interest rate of 18%. After commencing the factory, it is found that the business is being able to earn at the rate of 10%, which is less than the 18% rate of interest of the money indebted to Sonali Bank. As a result, the company will not be able to repay the money of Sonali Bank. In such situation, the business will be unfruitful. Therefore, it is an unavoidable duty to know the cost of fund and then take such investment decision so that it is possible to earn more income than the cost of fund. Therefore, it could be said that right calculation of cost of fund is the precondition of right investment decision.

Second: Capital is structure-related. Every organization has a desirable loan policy. Desirable loan policy means what portion of the capital a company will collect from borrowing or loan. In a business firm, the equity portion of the owners is called total capital. A company may choose to collect total capital at any ratio, such as, 50% own capital or equity and 50% loan or, 60% own capital or equity and 40% loan or, 40% own capital and 60% loan, etc. The company has to assess the cost of the capital structure of every such ratio and then it has to accept that alternative of capital structure where the cost of capital is minimum. Therefore, cost of capital bears significance also in selecting the capital structure of the business.

7.3 Calculating Cost of Capital

To implement a long term investment decision, a company usually collects necessary fund from a long term source of funding. Long term loan capital, priority share capital, general share capital and reserved income are major sources of these long term funds. A public limited company usually collects necessary fund for implementing long term investment opportunity or projects from among these four sources. There are differences in expected income and type of risk of the financer or investor from each of such sources. For example, expected incomes of loan capital financer and general shareholders are not equal. As the expected income of the investors or financers is considered as the cost of capital of a company, costs of capital of different sources of the company are different. These differences of the cost of capital indicate differences of the investors' or financers' expected income rate and type of risk. Usually, as much risky the financers think their investment to be,so much higher is their expected income. Now, a brief idea of costs of capital of different sources is given below:

a) Cost of Loan Capital

Every company usually collects loan for business from one or more than one sources. For example, the main source of loan capital of small business enterprises like grocery, hair cutting saloon, medicine shop etc. is the loan taken from bank or other financial organization. Besides, big business organizations or companies collect money by selling bond or debenture along with loan from banks or other financing organizations. If financing is done by taking loan from bank or a financing organization, calculation of cost of loan capital is very easy. Here, rate of interest fixed by the bank is the cost of capital of the organization.

Suppose, Sonali Bank has agreed to give a grocer a loan of 10 lac taka at 15% interest. Here, the grocer's cost ofloan capital will be 15%. However, this rate is considered as the pre-tax cost of capital of the enterprise. It is to mention that taxable profit of a business enterprise is determined by deducting the amount of interest of loan capital that the enterprise refunds from pre-tax profit. As a result, the company has to give less tax. In this way, loan taken from bank or financial organization brings advantage to the business enterprise. Considering this opportunity, pre-tax loan capital has to be adjusted. Pre-tax profit is adjusted by using the following formula:

$$\text{Cost of debt after tax } (k_d) = \text{Rate of interest before tax } (1\text{-Tax rate}) \times 100$$

$$\text{or, } k_d = I\,(1\text{-}T) \times 100$$

If the 15% cost of debt before tax of the grocer is adjusted by 30% tax rate the tax-adjusted cost of loan capital will be as below:

$$\text{Cost of debt after tax } (k_d) = I\,(1\text{-}T) \times 100$$
$$= 15\%\,(1\text{-}.30) \times 100$$
$$= 0.15 \times 0.70 \times 100$$
$$= 10.50\%$$

Activity: What will be the cost of loan capital or cost of debt (k_d) if capital is collected from 9% bank loan and tax rate is 40% ?

b) Cost of Preferred Share

Calculating the cost of preferred shares is different from calculating the cost of loan capital. Because there are some differences between loan capital and preferred shares. Loan capital providers usually get interest for certain terms. On the other hand, preferred shareholders get dividend at certain rate for any

indefinite time. However, the company is not always bound to give dividend to the owners of preferred shares. But, although the company is not bound to give dividend, when it makes sufficient profit it usually gives dividend to the preferred shareholders. Therefore, it could be said that cost of preferred shares depends on the expected income of the shareholders.

If the ratio of the dividend of preferred shares and the money obtained from selling of shares is calculated, we find the cost of preferred shares. With the formula it can be calculated in the following way:

$$\text{Cost Preferred Share } (k_p) = \frac{\text{Expected dividend of shareholders}}{\text{Money got from sale of shares}} \times 100$$

$$\text{or, } k_p = \frac{D_p}{P_0} \times 100$$

Example: A company is considering to sell 10% preferred shares of face value 1000 taka. The company expects to get 820 taka from selling of each share. Using the given information, cost of those shares can be determined in the following way:

$$\text{Cost of preferred share} = \frac{100}{820} \times 100 \qquad \left\{\text{Note: } \frac{10\,\%\text{ of } 1000}{\text{Sale value per share}}\right\}$$

$$= 12.20\,\%$$

Activity 1: A company issued 8% preferred shares. If the face value of each share is 100 taka and money got from selling of each share is 90 taka, determine the cost of preferred shares.

c) Cost of Ordinary Share Capital

You have known that a company collects capital by selling ordinary shares in the market. On the other hand, the company may finance from the accumulated profit of its business. From all other sources, ordinary share capital is different First, the company is not always bound to give dividend on equity capital like other sources. Second, even it gives dividend, the amount or rate of dividend is not always equal. For these reasons, determining the cost of ordinary share capital is different from determining the costs of other sources.

The shareholders of a company usually buy shares with the hope of doing profit from dividend and increase of share price. As a result, cost of share capital means the rate of expected income from the dividend of the investors or shareholders and the profit gained from the increase of share price.

Some problems are found in determining the cost of ordinary capital. First, determining future expected dividend is a complex task, as the rate of dividend does not remain fixed like that of preferred shares. Second, guessing the future income of a company and rate of dividend increase is another complex task.

For these complexities, there is no single way of determining the cost of ordinary share capital. Based on different guesses, different ways of calculating cost of capital are invented. Two easy ways of calculating cost of ordinary share capital are discussed below:

Zero Dividend Growth Method

It is an easy way of calculating cost of ordinary share capital. In this method, it is supposed that the company will announce the same dividend in future years as that it has given in the current year. That means, there will be no change in the expected dividend of the shareholders. For example, if a company gives 10 taka dividend per share, it is supposed that the company will give 10 taka dividend to the shareholders in future years also. In this method, if the dividend per share is divided by market price of the share, we get cost of ordinary shares. It is shown in formula in the following:

$$\text{Cost of ordinary share capital } (k_e) = \frac{\text{Dividend}_1}{\text{Share price}_0} \times 100 \quad \text{or, } k_e = \frac{D_1}{P_0} \times 100$$

Here, Dividend_1 = Expected dividend at the end of the year

Share price_0 = Present market price of shares

Example: The present market price of share of a company is 110 taka. The company has announced 10 taka dividend per share this year. The cost of ordinary share capital of the company can be calculated in the following way:

$$\text{Cost of ordinary share capital} = (k_e) = \frac{D_1}{P_0} \times 100$$

$$= \frac{10}{110} \times 100$$

$$= 0.0909 \times 100 \quad = 9{\cdot}09\ \%$$

Activity: The present market price of each ordinary share valued Tk 10 of Padma Ltd is Tk 20. The company declares 10% dividend in ordinary shares this year and it is decided to keep it same in future. Determine the cost of ordinary share capital.

Constant Dividend Growth Method

In reality such companies are very rarely found where there happen no changes in giving dividend in future years. Usually, companies give dividend in different

years in different rates. Dividends increase in fixed rate is such a method. Here, it is supposed that a company does not give equal amount of dividend every year. However, this method has some inferred conditions.

It is supposed in the conditions that the company's dividend will increase every year and the rate of this increase will remain the same every year. For example, if any company announces 10 taka dividend in the current year and the inferred dividend increase rate is 10%, then-

After 1 year, the expected dividend will be 10 (1 + 0.10) = 11 taka
After 2 years, the expected dividend will be 11 (1 + 0.10) = 12.1 taka
After 3 years, the expected dividend will be 12.1 (1 + 0.10) = 13.31 taka
In this way, every year expected dividend is increased by 10%.

Cost of ordinary share capital can be calculated by applying constant dividend growth method, with the use of formula, in the following way:

$$\text{Cost of ordinary share capital } (k_e) = \left\{\frac{\text{Dividend}_1}{\text{Share price}_0} + \text{Growth rate}\right\} \times 100$$

$$\text{or, } k_e = \left\{\frac{D_1}{P_0} + g\right\} \times 100 \text{ and } \quad D_1 = D_0 (1+g)$$

Here, $\text{Dividend}_1 = \text{Dividend}_0 (1 + \text{Growth rate})$

Dividend_0 = Dividend of this year

Share price_0 = Present market price of shares

Growth rate = Growth rate of dividend

Example: A company wants to determine the cost of ordinary share capital. The present market price of share of the company is 150 taka. The company gave 15 taka dividend per share in the year just ended. By analyzing previous records, it is found that the company's dividend increases by 5% every year. The cost of ordinary share capital could be determined in the following way:

Cost of ordinary share capital $(k_e) = \left\{\frac{D_1}{P_0} + g\right\} \times 100$

$= \left\{\frac{15.75}{150} + 0.05\right\} \times 100$

$= 15.5\%$

Here,
$\text{Dividend}_1 = D_0 (1+g)$
$= 15 (1+0.05)$
$= 15.75$

Activity: A company gives dividend at the rate of 12 taka at the end of the current year and this dividend has increased at 10% from the past time. If the present market price of share of the company is 125 taka, determine the cost of capital.

d) Cost of Reserved Income

One of the sources of financing a company is its own reserved income. The company does not distribute the whole amount of money that it makes profit as dividend to the shareholders, but retains a portion of it in its own fund.

For example, if a company makes a profit of 50 lac taka in some year and out of this money it keeps 25 lac taka in business, this 25 lac taka will be considered as reserved income of the business. Thus, in the later time, financing is made from this reserved income in implementing different investment opportunities or projects. When financing is made from reserved income, it may seem to many people that there is no cost of reserved income. But this concept is wrong. Because although this reserved income apparently has no cost, yet it has an opportunity cost.

Before understanding the opportunity cost of reserved income, general concept of the opportunity cost has to be understood. Suppose, your father has a deposit of 10 lac taka in a bank. One day your brother told your father "father, please give me the 10 lac taka which is kept idle in the bank because I shall run a business". These words of your brother is not correct. Because the money is not kept idle; the bank will give interest at a certain rate on this 10 lac taka. As a result, if your father gives the money to your brother, he will not get the money which he could earn as interest. Thus, the amount of money that is ceased to get as interest is an opportunity cost to give it to your brother's business.

Similarly, if the income of a company is retained without distribution among the shareholders, it has an opportunity cost from the perspective of shareholders. If the company,without retaining as reserved income, distributed the profit among the shareholders, the shareholders could earn extra income by investing it elsewhere. Thus, if the company does not distribute its earned profit or income, the shareholders are deprived of getting income from investing it elsewhere. Here, being deprived of getting income from investing it elsewhere is termed as opportunity cost of the reserved income. For example, if a company distributes the whole amount of its earned profit among the shareholders and the

shareholders earn at the rate of 15% by investing it elsewhere, then 15% will be the opportunity cost of company's reserved income.

7.4 Weighted Average Cost of Capital (WACC)

Through the above methods we learned that costs of different sources of capital are different. For example, the cost of loan capital is of one type, on the other hand the cost of share capital is of another type. Then naturally question will be raised that when a business enterprise uses some loan capital and at the same time some share capital, what will be the cost of capital of the enterprise then. The answer is: average of the all. The thing is described with the following example:

Example: A company has 200 crore ordinary share capital, 200 crore loan capital and 100 crore preferred share capital. The rate of interest of loan capital is 10% and rate of dividend in preferred shares is 8% of which written price is Tk 100 each. The market price of ordinary shares and preferred shares are 255 taka and 110 taka respectively. The company has given dividend 13 taka per share to the ordinary shareholders this year and the dividend has increased at 4% from the rate the company gave earlier. If tax rate is 40%, what is the average cost of capital of the company?

Solution

Cost of debt after tax $(k_d) = I(1-T) \times 100 = 10\%\ (1-40\%) \times 100$

$= 0.1\ (1-0.4) \times 100 = 0.1 \times 0.6 \times 100 = 6\%$

Cost of preferred share capital $(k_p) = \frac{D_p}{P_0} \times 100 = \frac{8}{110} \times 100 = 7.27\%$

Cost of ordinary share capital $(k_e) = \left\{\frac{D_1}{P_0} + g\right\} \times 100 = \left\{\frac{D_0(1+g)}{P_0} + g\right\} \times 100$

$= \left\{\frac{13(1+0.04)}{255} + 0.04\right\} \times 100$

$= 9.30\%$

Now, we are to find what portion of the total capital of the company is each source of capital. From the given information, it is understood that in the total capital, portion of ordinary shares is (200/500) or 40%, portion of loan capital is (200/500)

or 40% and portion of preferred shares is (100/500) or 20%. The average cost of capital of the company will be calculated by multiplying the cost of each source by the relevant percentage of these three and then doing total of these multiplications.

$$WACC = (k_e \times w_e) + (k_d \times w_d) + (k_p \times w_p)$$
$$= (9.3 \times .4) + (6 \times .4) + (7{\cdot}27 \times {\cdot}2)$$
$$= 7.57\%$$

Activity 3: A company has Tk 1000 crore total capital of which Tk 500 crore is ordinary share capital, 12% preferred share capital Tk 300 crore and 15% loan capital Tk 200 crore. The market price of each ordinary share and preferred share is 40 taka and 60 taka respectively, having Face Value 50 taka, 10% dividend per ordinary share has been paid this year and increase of dividend 5%. If the tax rate is 35%, determine the average cost of capital of the company.

Sample Questions

Multiple Choice Questions

1. What is called the minimum expected Rate of return the investors called in business?

A. Cost of Capital
B. Rate of Profit
C. Interest of Investment
D. Source of Financing

2. Which one is the sources of long term financing?

A. Commercial Bank
B. Gained Dividend
C. Business Loan
D. Reserved Fund

3. What is the indirect advantage of cost of debt capital?

A. Increase of Profit
B. Decrease of Interest
C. Reduction of Tax
D. Increase of Fund

4. Selecting capital mix is important–

i. highest scope of loan
ii. optimun loan policy
iii. minimum cost of capital

Which one of the following is correct?

A. i and ii B. i and iii
C. ii and iii D. i, ii and iii

5. Nannu Mia starts pharmacy business with 2 lac taka loan at 12% interest. If tax rate is 12%, what is his cost of tax-adjusted debt capital?

A. 10.56% B. 12%
C. 13.44% D. 24%

6. Shobnom Ltd. collects capital by selling 9% preferred shares of 5000 taka each at 10% reduction price. What is the cost of capital of Shobnom Ltd.?

A. 9% B. 10%
C. 11.11% D. 19%

Read the following stem and answer question numbers 7 and 8:

Total capital of Mr. Tutul's business is 1 crore taka of which 60% is his own finance and the rest is loan at 15%. Getting an investment opportunity of 20% profit, he changes the capital structure. As a result, an opposite relation is created between loan and own finance.

7. What is the debt capital of Tutul's business at present?

A. 20 lac B. 40 lac
C. 60 lac D. 75 lac

8. In changing the capital structure, Mr. Tutul has considered –

i. opportunity cost of financing
ii. average cost of capital
iii. minimum cost of capital

Which one of the following is correct?

A. i and ii B. i and iii
C. ii and iii D. i, ii and iii

Creative Questions

1. Total capital of Priyonti Textiles Ltd. is 10 crore taka, of which ordinary share capital of per share 10 taka is 5 crore taka, 6% preferred share capital is 3 crore taka and the rest is loan capital at 8% interest. This year the company has given 2 taka dividend per share and it is increased by 10% each year. At present market price of each ordinary share and preferred share are Tk. 20 and Tk. 25 respectively. Tax rate is 30% and at present average cost of capital is more than 10%. So the board of directors advised to follow zero dividend growth method.

   A. What is cost of capital?
   B. Explain – 'As much the investment is risky, so much higher is the expected income'.
   C. Determine the cost of ordinary share capital of Priyonti Textiles Ltd. at present.
   D. Evaluate whether average cost of capital of Priyonti Textiles Ltd. can be kept in optimum level by following the advise of the board of directors or not.

2. Aryan Company needs 25 lakhs to undertake a new project. They have 22 lakhs of taka deposited as a provision fund at an annual interest rate of 10%. The new project could have been undertaken by withdrawing that money from the bank. But the company took a bank loan of 20 lakhs taka for a period of 5 years at an annual interest rate of 13%. Aryan Company Tax Rate 30%Currently, the company issues 15% preference shares of a par value of 100 taka. Each share sells for 500 taka.

   A. What is constant growth dividend model?
   B. Explain the problem of there being no single method of determining the cost of capital of common shares.
   C. Determine the cost of capital of preference shares of Aryan Company.
   D. Analyze the rationality of taking a loan by Aryan Company considering the cost of capital.

Short Questions

1. Why cost of capital is important? Explain.
2. What is meant by a optimum credit policy?
3. What is meant by capital mix?
4. Explain the formula for tax-adjusted cost of debt capital .
5. Explain the opportunity cost of retained earnings.

Chapter Eight

Currency, Bank and Banking

The history of currency is very old. Different types of problems of economy have been solved because of the introduction of currency in the world. The banking system has been created through the various uses of currency. We need to know the present banking system of Bangladesh along with the evolution of banking system. In this chapter bank, currency, banking etc. have been discussed.





After reading this chapter we shall be able to–

- explain currency and the history of currency.
- explain the concept of Bank, Banking and Banker.
- describe the history and evolution of bank business.

8.1 Currency and Its History

The necessities of human beings, their activities and social bonding had increased since the creation of them and the dawn of civilization. At the beginning, the necessities of human beings were very limited and they met those necessities by exchanging additional commodities after meeting self demand. This "exchange of commodities" is known as Barter System. In course of time, with the increase of human beings' knowledge, intelligence and their activities specially the 'Barter System' expanded much and along with them their necessities started to increase. The horse carriage, boats and in later times the ships made an important contribution behind it. After solving communication problems, the efforts of collecting the necessary commodities were increasing from different geographical locations. From village to village, from village to town and from country to country, the necessity of the medium of exchange in case of exchanging commodities was felt intensely. Besides the medium of exchange, the piling of deposits and to measure the value of commodities had played a great role for the creation of currency.

The history of currency is very amazing. It is seen from the pages of history that coins of different types and shapes were used in different countries in different times. In different ages the uses of kowri, the teeth of shark, the teeth of elephant (ivory), stone, pearl, burnt clay, bronze, silver and gold were used as coins (as the medium of exchange).



Pictures: Coins of different times made of bronze, pearls and the teeth of elephant.

The uses of metal coins did not last for a long time because of some difficulties in their uses, carrying, transportation and other necessities. The use of metal coins increased with the increase of world population. So the supply of metal became short; moreover because of the uses of gold and silver jewelries and other objects, use of the paper money was introduced in the nineteenth century. Though at present metal coins are being used with the paper money, yet the uses of metal coins are gradually becoming limited.

Use of paper money has greatly increased because of availability of papers, easy portability and compatibility to different types of security measures.

Activity: Prepare a list of both metal coins and paper currency introduced in Bangladesh.

8.2 Currency

On the basis of function, by the term 'currency' we mean a medium of exchange which is acceptable to all and which works as a scale in measuring values and medium of savings. From this definition, we can understand that currency has the following functions:

- It works as the medium of exchange. Currency can be used for any kind of transaction. For example: You spend money to buy a book. Here the currency works as the medium of exchange; this is the main function of currency.
- It works as the means of savings. It means that when you want to save for future, you can make this savings through money. If there is no existence of money, your savings would become very difficult.
- It works as the measure of values. It means, it is a function of currency to determine the price of economic goods or service. Because of existence of money, we can easily determine the daily wages of a labour; we can determine the price of book as Tk.100 and the price of 1 kg rice as TK.25. In these ways the economic activities become easier for us.
- Currency is used in case of determining standards of values also.

8.3 Relationship between Currency and Bank

The social bonding and economic activities increased with the development of civilization; as a result transaction among man and activities of exchange also increased. Just after the introduction of currency, the necessity of banking system was needed. Hence, currency is called the mother of banking system. From the very beginning of evolution of banking system till today, the bank has been using the currency as the main element of its business.

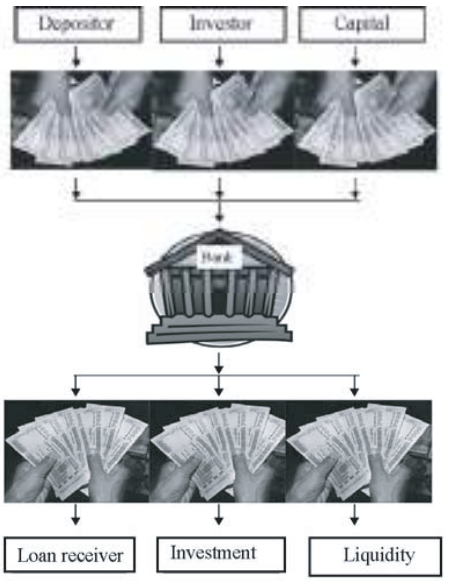


Figure 8.1: The diagram shows how a bank invests money collected from the investors and depositors

A bank forms its deposit by collecting surplus money from people as savings. For depositing money, the depositor is offered a fixed rate of interest or profit. The bank earns profit by lending these deposits as loan charging higher rate of interest to the borrowers. As the bank cannot run without currency, so the uses of currency is also limited without the bank.

8.4 Bank, Banking and Banker

Bank

It is difficult to give a definite account of the origin of the term 'Bank'. The literary meaning of the 'Bank' is the storage of particular things, treasury, and even this term is used to mean a long table. According to some economists, the term 'Bank' is originated from the ancient Latin words *Banco, Banak, Banque, Bancus* etc. According to the followers of this opinion the Latin meaning of the term 'Bank' is bench or long table used for sitting on, for which support is found in the pages of history.

In the economic history of Middle Age, it is found that some people of the Lombardy Street in Italy used to run the business of depositing, lending and borrowing money using a long tool or bench. So, more supports are found on the Latin origin of the term 'Bank'.

To give the definition of bank,we can say that bank is a financial institution which collects the deposits from people against interest and makes investment for earning profit and is bound to return the money to the depositors at the moment they ask or after a fixed time.

Activity: Prepare a set in the classroom like a cash counter of bank. Some of you play the role of bankers and some play the role of clients.

Banking

According to Oxford Dictionary, "Bank is a safe organization for depositing, withdrawing money and giving loan". Therefore, the term 'Bank' gives the elaborate concept about the banking activities. It means all the legal activities of a bank are known as banking.

The main activities of banks, also known as banking, are mentioned bellow:

- **Deposit collection from the people:** People, whose income is greater than their expenses, are the potential depositors. Bank collects deposit from them.
- **Loan sanction:** Banks sanction loans when the capital provided by the owners/ intrepreneurs is less than the capital necessary for any business firm. Banks sanction loan to make up this deficiency.
- **Discounting and approving Bills of Exchange:** Another activity of bank is discounting the receivables and approving the bills payable.
- **Finance in foreign trade and in letter of credit:** Exporters and importers are required to convert home currency into foreign currency and foreign currency into home currency. This important activity is performed by a bank. Again through the letter of credit, a bank ensures the exporter to repay the amount of bill on behalf of the importer. It is also a function of the bank to certify the bill of exchange in favour of importers.
- **Money transfer:** It is really difficult to transfer money from one city to another, especially between two countries due to the presence of different currencies. Banks carry out this task in an easy way against a minimum cost.
- **Protection of valuables and documents:** Theft or dacoity might happen when someone keeps valuable items such as gold jewellery with him/her. Valuables and documents may also be damaged if they one kept into their owners, Banks protect and presence there items.

- **Asset management and financial advice:** It is also the responsibility of banks to provide different advice regarding business upon requests from clients and manage clients assets such as to collect rent on behalf of the client.

Banker

People directly involved in the banking business are called bankers. The two words 'Bank' and 'Banker' are essentially interrelated. Since running a bank or banking activities is not possible on one's own, banking business is run by people with education and training on banking.

8.5 History and Evolution of Banking

From the first light of civilization, men used to exchange their excess goods to fulfill daily necessities. The custom of exchanging commodities existed for a long time. At present Barter system exists in a small scale. After introduction of money, banking activities began to start from the necessity of business, transaction and protection of money. In 5000 B.C banking system took place for the first time. then Babylonian civilization, Roman civilization, Chinese Civilization, Greek civilization continued to contribute to the development of banking till 400 B.C. In India "The Hindustan Bank" was established in 1700 A.D as a modern bank. After that in 1935 "Reserve Bank of lndia" was established as the guardian of all Indian banks. After the partition of Bengal, during Pakistan regime in 1948 the central bank of Pakistan the "State Bank of Pakistan" was established, and this bank led the expansion of banking business and commercial institutions of East & West Pakistan.

With the independence of Bangladesh through the Liberation War, Bangladesh Bank was established in 1972 under Presidential Order No. 127 (effective from 16 December 1971).

After the liberation war, 1090 branches of 12 banks were in Bangladesh. Just after our independence, banking business faced a huge crisis because all the owners of the banks except 'Eastern Banking Corporation' & 'Eastern Mercantile Bank' were non-Bengali and all the head offices of the banks were in West Pakistan.

Bangladesh Bank started its role of guardianship as central bank in currency circulation, credit control & banking business and nationalized all banks for which the 6 banks were created. Those are Sonali Bank, Agrani Bank, Janata Bank, Rupali Bank, Pubali Bank and Uttara Bank.

In the next time, gradually all the banks were denationalized except Sonali and Agrani Bank. In the 70's it was realized that the nationalized banks cannot play its expected role. Denationalization started in the 80's. After the decade of eighty in the 90's permission was given to establish few new banks in the private sector.

At present government, specialized, more than private banks are running business in Bangladesh.

Sample Questions

Multiple Choice Questions

1. With the evolution of civilization why did human beings need to exchange products with one another?

A. to meet the demand
B. to strengthen social bondage
C. to transport products
D. to develop communication system

2. What is the reason behind introduction of paper money?

i. an alternative use of metal
ii. long existence of metal coin
iii. scarcity of metal

Which one of the following is correct?

A. i and ii
B. i and iii
C. ii and iii
D. i, ii and iii

Read the following stem and answer question numbers 3 and 4:

During a light conversation with her grandmother, Seema came knew that in the past, people would exchange their products with each other according to their needs, but it was not possible to exchange all kinds of products.

3. People on those days would exchange products to –

i. strengthen their social bondage
ii. meet their demand
iii. exchange additional product

Which one of the following is correct?

A. i and ii
B. i and iii
C. ii and iii
D. i, ii and iii

4. Through which problems of barter trade is removed?

A. invention of ship
B. introduction of metal coins
C. improvement of geographical connectivity
D. increase of people's everyday demand

Creative Questions

1. Azmi Noor is a student of class nine in Business Studies group. Her father is a high official of Bank. She sees that her father is always busy with banking activities.

   A. What is Barter System?
   B. Explain relationship between currency and bank?
   C. Banking and the profession of Azmi Noor's father are correlated with each others. Explain.
   D. Discuss the role of the professionals like the father of Azmi Noor in evolution of Banking.

2. One day, Habiba learned from her grandfather that in the past, people used to exchange goods with each other according to their needs, but not all types of goods could be exchanged in this way. Therefore, a universally accepted medium of exchange was introduced, which is now acceptable to everyone.

   A. What is a person involved in banking called?
   B. What does bank mean? Explain.
   C. Explain the difficulties in carrying out transactions among Habiba's ancestors.
   D. Analyze the significance of the universally accepted medium of exchange that Habiba sees today.

Short Questions

1. Explain the reasons for the extinction of the barter system.
2. Why is money called a medium of exchange? Explain.
3. Write the relationship between currency and banks.
4. What is the reason for the introduction and spread of paper currency?
5. Why is currency called the mother of banking?

Chapter Nine

Banking Business and Types

Banking business is one of the important business among all. Different banks have been established with various objectives. There are differences in the formation of bank, in its procedures, objectives, core principles, management and others. Bank may be established by both public and private entrepreneurship. Various aspects of banking business have been discussed in this chapter.



Picture: Transaction at a bank

After reading this chapter we shall be able to –

- describe the objectives of banks.
- identify the principles of banks.
- analyze the classifications of bank.
- recognize the differences between governmental and non-governmental banks.

9.0 Introduction

Size, structure, objectives and formation of banking system have changed a lot with the progress of time. Banking has passed through different phases of change namely traditional banking, modern banking and electronic banking. Besides, in a competitive market, innovative banking products and services are being provided to adapt with the needs of the era and clients.

9.1 Objectives of Bank

Objectives of banking differ from one another due to the difference of groups involved with banking. We will now discuss the objectives of banks from the different viewpoints.

(A) Objectives of banks from the owner's and managing authority's perspective

(B) Objectives of banks from government's and state's perspective

(C) Objectives of banks from the client's perspective

(A) Objectives from the owner's and managing authority's perspective

1. **Investment of fund and earning profit:** Making proper investment of the money collected from savings is one of the main objectives of a bank. To achieve this objective, share holders have to earn anticipated rate of profit. Every investment has opportunity cost, and at least this amount of profit should be earned. Otherwise the bank's objective remains unachieved.
2. **Achieving goodwill:** If goodwill can be achieved through proper banking, image of the owners is increased. Goodwill creates clients' faith and trust to the institution.
3. **Participation in development:** By investing in different sectors, banks actively participate in the development of production and national income of the country. In this way, owners become successful in their investment. Providing service to the client is another objective of banks.
4. **Social contribution:** Spending a portion of profit in social development and social activities through the different social activities is one of the objectives of bank.

(B) Objectives from government and state's perspective

1. **Cirulation of notes and currency :** The central bank issues notes and currencies. Bangladesh Bank issues currencies as the central bank of Bangladesh. Bank cheques can be used as a medium of exchange and an alternative to currency, which helps the government's job of currency circulation.

2. **Capital Formation:** A bank collects scattered savings of the society through deposit collection and provides loans to large industries. Motivating people for savings and forming capital is one of the main objectives of the banks.
3. **Investment and Industrialization:** Before sanctioning any loan, a bank analyzes the prospect of business of the project. The government keeps on presenting priority sectors to the people and the nation. Banks participate with the government in achieving this objective through sanctioning loan on priority basis.
4. **Controlling Money Market:** Both the government and the central bank always control money market in order to control inflation. However, the central bank alone cannot do this alone. Commercial banks extend their support to the government and the central bank.
5. **Employment Generation:** Eradication of unemployment problem is one of the objectives of banking sector. The projects in which banks finance can create employment. For example, by making investment in a labour intensive project instead of capital intensive project, a bank can create employment and thus can help the government.

(C) Objectives from the client's perspective

1. **Deposit:** Banks create deposit by collecting small savings of their clients. No interest is offered in current account but lots of services are offered. In a Savings Account, a client receives 5% to 7% interest and deposits can be withdrawn at any time. In a Fixed Deposit Account, interest rate is comparatively more but if deposit is withdrawn before the expiry of the term, this account will not be profitable. Duration of Fixed Deposit Account is any period starting from one month. Providing support to the depositor to form any amount of deposit is one of the basic responsibilities of banks.
2. **Security:** Giving security to hard cash, gold jwellery and other to preserve these valuables safely is one of the objectives of the bank. The client's valuables is another objective of bank. In our society, keeping valuables at our home is not secured.
3. **Advisor and Consultant:** Before sanctioning the loan, a bank evaluates the business prospect of the project. Profitability of the business is as important for the loan applicant as it is for the banks. Professional efficiency of the bank strengthens the client's concept of the profitability of the business. A bank sometimes acts as an advisor when any expansion or modernization is required for the business. Various other financial advice is provided by banks as well.

4. **Representative and Trustee:** In exchange of receiving value, a bank acts as a representative/trustee to its clients. Banks take part in different business contract on behalf of clients, sign the bill of exchange and collect house rent.
5. **Money Transfer:** Banks transfer money from one place to another within and outside the country according to clients' requirements. At present, banks transfer money of the client through e-banking and implement this important objective.
6. **Development and easy of standard of living:** Banks introduce various new and innovative products and services to improve people's standard of living. Using credit cards buyers can purchase products without cash for a specified time period. Cash can be received 24 hours a day by using ATM machine. Nowadays 24 hours banking activities are going on in every big city all over the country. This service has been made even easier through mobile banking and internet banking.

9.2 Structure of a Bank

According to the regulation of the central bank, a private bank can be established with minimum 2 and maximum 13 directors. But to set up a bank own by a public limited company, the minimum number of members is 7 and maximum is unlimited. Establishment of a commercial bank is not possible in Bangladesh without approval of Bangladesh Bank. If any bank conducts business in Bangladesh without approval of Bangladesh Bank by the names of cooperative bank or any other name, it is considered illegal.

9.3 Principles of Banking Business

Banking is a risky business. Risk cannot be avoided without establishing a dependable and efficient management system. Every bank should follow some fundamental principles to avoid the risk which arises in using others' money in banking, which are stated below:

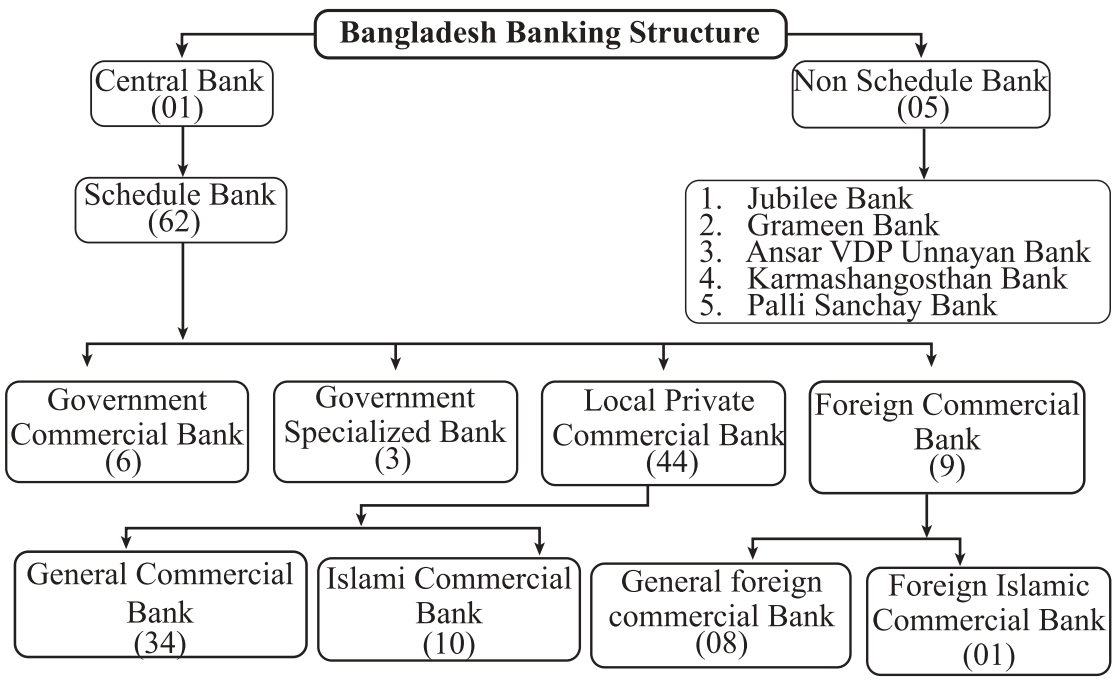
1. **Principle of Security:** An important principle in banking is ensuring the security of client's money and the money that has been given as loan. Before sanctioning loan, a bank should evaluate the financial solvency and honesty and then keep security against the loan.
2. **Principle of Profitability:** Earning sufficient amount of profit is another principle of banks. A bank provides lower rate of interest to the depositor but charges a higher rate of interest to the borrowers. The difference between these two rates is the main portion of the profit percentage of banking.

3. **Liquidity Principle:** When a depositor wants to withdraw money from bank account, the bank is bound to pay the amount in cash. Again, if the bank keeps a maximum portion of deposited money as liquid, it will lose its investment capacity and cannot earn profit. So, proper banking business means maintaining a reasonable amount of liquid asset so that the bank can satisfy both its depositor and the borrower. It is one of the most important principles of bank.
4. **Financial Solvency:** Financial solvency is urgently required to run the business properly: Due to the lack of financial solvency, a bank may become bankrupt. Principle of financial solvency is a very important principle in banking.
5. **Principle of Efficiency:** Success of business mostly depends on the efficiency of board, officers and staffs involved in the management. In this competitive world efficiency is a very important principle to achieve the goal.
6. **Principle of Providing Services:** Providing different kinds of services to clients is an important responsibility. Development of bank is possible through these kinds of services for the clients.
7. **Principle of Publicity:** Expansion of business is possible by adopting attractive, understandable and suitable advertisement and publicity. Through publicity, a bank can exhibit different ways of banking services.
8. **Principle of Secrecy:** An important way of earning trust of the clients is keeping all information of the clients secret. So it is an important principle of banks to keep privacy.
9. **Principle of Goodwill:** Creation of goodwill through efficiency, secrecy, services is also an important principle.
10. **Principle of Investment:** The principle that is followed as the terms of investment (size of investment, duration,interest rate etc.) is called the investment principle. Successes of banks mostly depend on appropriate principle of investment.
11. **Principle of Development:** Besides making profits, another important principle of banks is to help and support in the development of economy of the country.
12. **Principle of Sanctioning Loan:** Before giving any loan, a bank analyzes the productivity and profitability of proposed projects. In this situation, it is a noteworthy principle of a bank to refuse loans in the cases of unproductive and uncertain projects.

13. **Principle of Economy:** High profit with low cost is an important principle of a bank. Profit maximization is achieved through cost minimization.
14. **Principle of Trust:** A precondition of effective banking business is clients' trust on bank. To earn this trust, banks follow different principles of honesty and trust. Depending on this trust, people keep their money and valuable assets (locker service) in the bank.
15. **Principle of Cautiousness :** It is essential for a bank to use the pronciple of cautiousness in the case of investment so that uncertainty and risk can be avoided.
16. **Principle of Specialization:** In case of foreign trade, loan sanction, note issue etc. banks follow the principle of specialization. This increases functional efficiency and quality.

9.4 Classification of Banks

Bangladesh Banking Structure are given below :



Central Bank: Central bank is the custodian, regulator and director of all other banks. It is the life-blood of the whole banking system. It is mainly created to regulate money market. Generally circulation of currency, supply of money and special power of regulating loan are the main functions of central bank. In Bangladesh 'Bangladesh Bank', in England 'Bank of England; in Japan 'Bank of Japan' play the role of central banks.

1. Scheduled Banks: Scheduled banks are those that are listed under the central bank and operate in accordance with its regulations. To be listed as a scheduled bank, each bank must have a minimum paid-up capital of 500 crore Taka. For branchless digital banks, the required capital is 125 crore Taka. These banks receive various forms of assistance from the central bank. Examples include: Sonali Bank, Rupali Bank, BRAC Bank, ete.

Scheduled banks are of the following types:

a) Government-Owned Commercial Banks:

Banks that are established and managed under full government ownership are called government commercial banks. These banks provide banking services to the general public. Currently, there are 6 government-owned commercial banks, including: Sonali Bank, Rupali Bank, Agrani Bank, Janata Bank, Bangladesh Development Bank, BASIC Bank.

b) Specialized Government Banks:

These banks are established for special purposes or specific regional development and operate with limitations. Example: Bangladesh Krishi Bank ,Rajshahi Krishi Unnayan Bank (RAKUB), House Building Finance Corporation.There are currently 3 specialized banks.

c) Private Commercial Banks:

These are privately owned banks that operate under licenses issued by the central bank. These banks are established for profit and serve different customer needs.There are currently 44 private commercial banks, such as:Dutch-Bangla Bank, Prime Bank, City Bank, Mutual Trust Bank etc .Private commercial banks are divided into two types:

i) Conventional Private Commercial Banks:

Banks that operate with a focus on profit and interest-based systems are called conventional commercial banks.There are currently 34 of these banks.

ii) Islamic Commercial Banks:

Banks that operate based on Shariah law and do not deal with interest are called Islamic commercial banks. These banks function based on profit-and-loss sharing principles.There are currently 10 Islamic banks, including: Islami Bank Bangladesh Limited, Al-Arafah Islami Bank First Security Islami Bank, Social Islami Bank etc.

d) Foreign Commercial Banks: Banks that are owned by foreign entities but operate branches in Bangladesh are called foreign commercial banks. These banks follow Bangladesh's banking laws but their ownership remains foreign. There are currently 9 foreign commercial banks, such as:Standard Chartered Bank, HSBC, Citi Bank N.A

Among these, 8 are conventional commercial banks, and 1 is an Islamic commercial bank.

2. Non-Scheduled Banks: Banks that are not listed under the central bank are called non-scheduled banks. These types of banks do not receive any kind of support from the central bank.Examples of non-scheduled banks include: Bangladesh Cooperative Bank Limited, Grameen Bank, Ansar-VDP Unnayan Bank, Employment Bank, Palli Sanchay Bank.

Other Banks: In functional classification, except the above mentioned banks, there are investment bank, savings bank, mortgage bank, transport bank, small and cottage industrial bank, import-export bank etc. Investment bank sells shares of new companies as an underwriter, offers mid-term and long-term loan, does bridge financing, debenture selling, advises on various trade issues. Savings bank encourages people in saving money by accepting surplus money of people as savings and by giving profit and interest. In this type of bank, one can deposit money at any time and the savings of this bank is managed on the condition of allowing withdrawal opportunity or using other rules. The bank which sanctions long-term loan against land security in agriculture or industrial sector is called mortgage bank. The specialized bank which is established in order to develop transport industry is called transport bank. This bank supplies loan to manufacture vehicles, to import spare parts, to modernize and to purchase loose tools. Bank of small and cottage industries offers financial assistance and advice to the entrepreneurs involved in small and cottage industries to encourage them and thereby speed up industrialization. The bank which provides support in the export-import business is called Import-Export bank. Main activities of such a bank are to provide loan for import, assistance by issuing Letter of Credit and monitoring import in addition to provide necessary advices.

Category	Description
Government Commercial Bank	Publicly owned and service-oriented
Private Commercial Bank	Privately owned
Specialized Bank	For specific purposes (e.g., agriculture and industry)
Islamic Bank	Based on Shariah or interest-free transactions
Foreign Commercial Bank	Foreign-owned

Classification by Specialized Clients

1. Labour Bank: Banks which are established with a view to creating a tendency of savings among the labor, and work to develop their standard of living, are called labour bank. In our country there no such specialized bank but commercial banks do the same activities by opening branches in labour-oriented locations.

2. Women Bank: Banks which are established to make women familiar with banking to encourage them for savings and above all, to specially offer them banking services are known as "Women Bank".

3. School Bank: School Bank has achieved popularity in developed countries. In our country such kind of bank was established in 1960's but it did not last long. To encourage savings among school students, they were supplied 'Saving Box' or bags.The main purpose of this kind of bank is to promote savings from the early student life.

4. Consumer Bank: Through this type of bank, consumers are provided the facilities to purchase on credit. To implement this objective, these banks supply 'Credit Card' to their clients so that consumers can purchase on credit.

Interest Free Bank

In 1983, islamic banking system was introduced first in Bangladesh as private bank to provide interest free banking according to Islamic Shariya. Although there are many similarities between Islamic banking and other commercial banking in terms of service provided, following products and services are seen in Islamic banking in collecting deposits and providing loan:

1. Mudaraba: To supply capital to the clients and provide support in capital management are the part of this service.

2. Musaraka: In such a banking service, business is done by joint initiatives of bank and clients on the basis of equal sharing of profit and loss.

3. Murabaha: If loan is given to a client to purchase anything (car, equipments), it is called 'Murabaha Service'. In such a case, the bank receives the loan amount in addition to some interest.

4. Ezara: Sometimes a bank purchases various products on its client's request and gives him/her those products to use for a certain duration of time. The client returns the products after the time and pays rent to the bank for the period of use. Besides, in Islamic banking several other products like kard-a-hasan, by-muazzel, bysalam etc. products are also available in Bangladesh. In Bangladesh, following Islamic banks are in operation:

1. Islami Bank Bangladesh Ltd.
2. Al-Arafah Islami Bank Ltd.
3. Social Islami Bank Ltd.
4. Exim Bank Ltd.
5. Shahjalal Islami Bank Ltd.
6. First Security Islami Bank Ltd.
7. ICB Islami Bank Ltd.

Sample Questions

Multiple Choice Questions

1. What type of bank is involved in silk production programme in Rajshahi district?

   A. local bank B. consumer bank
   C. national bank D. regional bank

2. Role of commercial bank in controlling the money market is-

   i. to provide support to the government
   ii. to work with the central bank
   iii. to control inflation

Which one of the following is correct?

A. i and ii B. i and iii C. ii and iii D. i, ii and iii

Read the following stem and answer questions no.3 & 4

Now-a-days in most of the villages of our country, women entrepreneurs are thinking to introduce a new kind of banking named 'Eco Banking'

3. Which of the following kind of banking does 'Eco Banking' belong to?

   A. structure-based B. owner-based
   C. control-based D. special client based

4. What are the objectives of establishing a specialized bank for women?

   A. to improve standard of living
   B. to encourage women in saving
   C. to introduce new different type of banking
   D. to encourage women in self employment.

Creative Questions

1. Arman is a regular customer of "Srijani" Bank and enjoys the benefits of electronic cards. Srijani Bank collects deposits from the public and provides loans. Since the bank has branches in different parts of the country, it is convenient for customers to transfer money. Recently, Mr. Arman went to the bank and deposited the document of his flat. Moreover, the bank saves a certain portion of the deposits, which makes the customers satisfied. It is mentioned that the bank is operated by making profit all over the country.

   A. What is a savings bank?
   B. Explain the role of commercial banks in regulating the money market.
   C. What type of bank is "Srijani Bank" in the stem? Explain.
   D. Analyze the objectives of "Srijani" Bank in the context of banks and customers in the light of stem.

2. 'Arunima Bank' was established in 2008 by taking legal approval. Recently a person has applied for a loan of Tk.1.50 lac to this organization. He is capable to repay the loan and interested to mortgage his land. But there are some discrepancies in the documents he has supplied.

   A. What is exchange bank?
   B. Why is financial solvency needed in banking activities? Explain.
   C. Approval of which organization was required in establishing 'Arunima Bank'? Explain.
   D. Will granting loan on mortgage to the applicant be rational for 'Arunima Bank'? Explain.

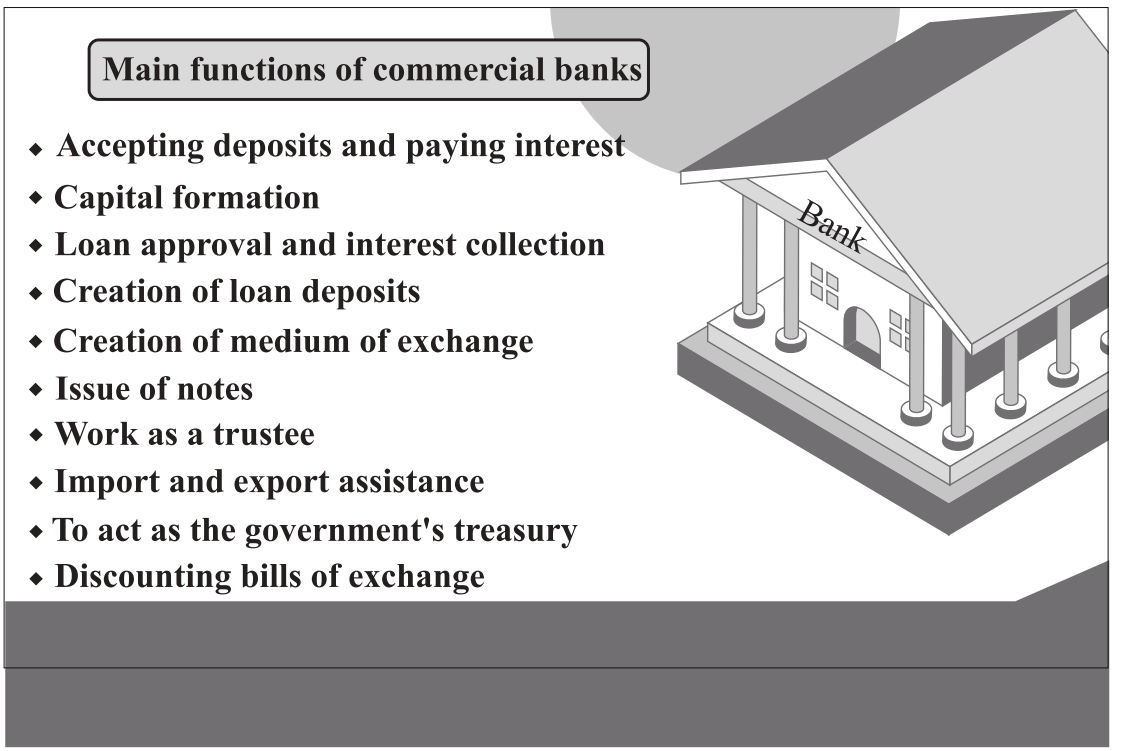
Short Questions

1. "Banks make people's lives easier" - Explain.
2. How does the bank create employment?
3. What is school banking? Explain.
4. How does the bank act as an advisor and consultant to customers?

Chapter Ten

Commercial Banks

Commercial bank is an institution that collects deposits from any person or institutions and provide loans to other persons or institutions according to their demands. In this chapter, we will get to know the concept and introduction of different commercial banks playing vital role in the world economy and to know their activities by evaluating the objectives identifying the sectors of their income and expenditures.



After reading this chapter we shall be able to–

- explain the concept and introduction of commercial banks.
- evaluate the objectives of commerical banks.
- analyze the function of commerical banks.
- identify the sectors of income and expenditure.

10. Introduction

We generally mean commercial banks by the word 'bank'. Commercial banking system has come through a lot of modernization and specialization through ages. Usually commercial banks collect money from people that are surplus after meeting their essential requirements and lend it to the borrowers. A commercial bank is a profit oriented organization that makes profit by making deposit, transaction and lending of money.

'The type of organizations which make transaction of money or service exchangeable through money are called commercial bank.' In sum, commercial banks are those institutions which make business by receiving money and short term credit. Moreover, commercial banks contribute to the expansion of business and economic development in many countries by providing short, medium and long term credits.

10.1 Objectives of Commercial Banks

Although commercial banks are mainly established for making profit, they have some other objectives. Objectives of commercial banks are discussed below:

1) **Making Profit:** Commercial banks are established with the fundamental objective of making profit.
2) **Capital Formation:** Collecting surplus money from the people and formation of capital is one of the main objectives of commercial banks.
3) **Medium of Exchange:** Commercial banks introduce cheques, bills of exchange etc. as mediums of exchange.
4) **Welfare of People:** Besides earning profit,public welfare is an indirect objective of commercial banks
5) **Assisting in Regulation of Loans:** Participating and assisting the central bank in formation of loan policy and loan regulation is one of the objectives of commercial banks.
6) **Assisting in Planning and Implementation:** Another purpose of commercial banks is to assist the central bank in proper development planning and implementation.
7) **Proper Distribution of Wealth:** Ensuring proper distribution of wealth by developing all sectors of economy in an equal pace through using monetary assets is another major goal of commercial banks.

8) **Employment Generation:** A purpose of commercial banks is to create opportunities for new employment by increasing economic activities.

9) **Mitigating Gap between Rich and Poor:** Through collecting deposit and offering loans, commercial banks enable participation of all class of people in economic activities, which help mitigate economic gaps between rich and poor classes of the society.

10) **Forming a Saving-tendency:** Another purpose of commercial banks is to create a saving tendency among people.

11) **Security:** Ensuring security of money, valuable ornaments of people is one of the purposes of commercial banks.

12) **Economic Stability:** Another purpose of commercial banks is to ensure economic stability by meeting the demand of funds in the market through providing loans and by working in line with the central bank's loan policy.

13) **Development of Trade and Industries:** An important purpose of commercial banks is to develop trade and industries by providing all-out support in import and export.

14) **Improving Standard of Living:** Improving standard of living by ensuring overall economic development is also a goal of commercial banks.

10.2 Functions of Commercial Banks

As a monetary organization, banks provide various kinds of services in industrial, commercial, social and economic development of a country. We can divide the functions of banks into two categories:

A. Main Functions

B. Special and Other Functions.

A. Main Functions

1) **Receiving Deposit and Payment of interest:** One of the main functions of commercial banks is to accept the savings of the holders in various types of deposits, such as current, savings and fixed deposit. A bank pays interests to the holders of fixed and savings accounts on their deposited amounts at certain rates. No interest is allowed for the current accounts but various other facilities are offered to them.

2) **Creation of Capital:** Banks create capital by accumulating all separate savings of people through different accounts. For this, the fund of the bank increases and the capital of the depositors is formed in the same way.

3) **Granting Loans and Charging Interests:** Banks offer loans to the borrowers from the deposited money of their clients in various terms. Granting loan is an important function of a bank. Because by providing loans, a bank facilitates productive economic activities on one hand, and on the other hand, the amount of interest received from the borrowers is its main source of income. A bank charges higher rate of interest to its borrowers than the rate of interest it offers to the clients. It is the real interest which is a part of banks opertional income.

4) **Creation of Loan Deposit:** When a bank sanctions a loan to the customer, a deposit account is opened in his name and the amount is credited to his account. Then, the amount of money withdrawn by the borrower is debited from that account. In this way banks create deposits by sanctioning loans.

5) **Creating Medium of Exchange:** Banks use cheque, bill of exchange, certificate, bank draft, pay order, debit card, credit card etc. as payment mechanism and medium of financial transaction.

6) **Issue Notes:** Notes are not usually issued by commercial banks but by central bank. But commercial banks issue notes in indirect forms. For example, if you have a deposit of taka 1 lac in a saving account of Sonali Bank and if you buy a computer costing taka 60 thousand, you can make the payment through a check from your account. Thus, sometimes bank cheques serve as a medium of exchange as an alternative to notes issued by the government and thus makes the currency usage easier.

7) **Serving as Trustee:** Commercial banks serve as trustee of properties of their customers and issue solvency certificates to them.

8) **Assistance in Import and Export:** An importer needs to convert local currency into foreign currency while an exporter needs to convert foreign to local currency, which is one of the functions of banks. Moreover, banks arrange for payment to the exporters on behalf of the importers through letter of credits (LC) in international business. Letter of Credit plays an important role in international trade by creating financial and business connections between importers and exporters. Providing operative assistance and suggestions in import and export related functions are

representative jobs of commercial banks.

9) **Serving as a Government Treasury:** Central bank or any other selected bank serves as the treasury of the government.

10) **Change Bill of Exchange :** Banks change bills of exchange by barter in favour of its clients to support business and commerce.

B. Special and Other Functions

1) **Investment of Capital:** Besides disbursing loans, banks invest capital in industrial plants and commercial organizations, which help increase gross national production and capital mobilization.

2) **Role in Economic Growth:** Banks help a country's overall economic growth, especially development of trade, commerce, transportation, communication, housing and education etc.

3) **Money Transfer:** Banks transfer money inside and outside the country through their mediums of exchange.

4) **Security of Money:** Banks ensure security of public money by keeping deposits. Besides, clients can also protect ornaments, documents of their properties in banks by using locker service.

5) **Guidance:** Offering various types of business guidance when sought by the clients and management of their properties, for example, collecting house rents are also included in the functions of banks.

6) **Employment Generation:** As a monetary organization, banks help in employment generation and indirectly create new employments by supplying loans in a country's economy.

7) **Loan Regulation:** As the regulator, central bank regulates supply of money and loans by expanding and contracting loans given by the commercial banks. This is vital for ensuring economic stability and regulating inflation of money.

8) **Agricultural Development:** Banks facilitate agricultural development by offering loans and other assistance in this sector.

9) **Industrial Development:** Banks assist industrial plants by offering long-term loans.

10) **Regional Development:** Regional development is also supported by banks as they have network of branches in different areas of the country.

Activity: Explain how a commercial bank helps to create entrepreneur.

10.3 Sources of Funds of Commercial Banks

Commercial banks usually collect funds from the following sources, some of which are external sources and some are internal.

1) **Paid up Capital:** First and foremost source of funds banks is paid up capital. The capital is provided by the owners for joint stock company, and in cases of joint capital company, capital is formed by issuing shares.
2) **Reserve fund:** At the time of declaring dividend, a certain portion of the profit is set aside every year which is called reserve fund. This fund is used as capital in future.
3) **Deposits:** Public deposits are a powerful source of funds to a commercial bank.There are three types of bank deposits (i) current deposits (ii) saving deposits and (iii) time deposits, which the clients do not withdraw all at once. So, the bank can earn more capital by using this money as loans or business investment.
4) **Borrowing:** Commercial banks in times of emergency borrow loans from the central bank or from other commercial banks of the country. They can also raise funds by issuing security bonds, credit certificates etc.

10.4 Sources of Income of Commercial Banks

Commercial banks earn money through different businesses, which are detailed below:

1) **Interest on Loans:** Commercial banks lend money to the industrialists, traders or consumers, and charge interest on the loans. This is their main source of their mcome.
2) **Investment:** Commercial banks earn profit by investing in profitable sectors like shares, issuing letters of credit, government security etc.
3) **Bill Discount:** Commercial banks also earn money by making discounted payment of bills of exchange in advance.
4) **Commission Received from Bank draft, Traveller's cheque etc.:** Commercial banks earn a big amount of money by charging commissions on bank drafts, traveller's cheques etc.

5) **Correspondence:** Commercial banks also earn money through charges received by offering various correspondence services for the clients at their request.
6) **Rent of Lockers:** People can use lockers of commercial banks for safekeeping of their valuable documents, ornaments etc. by paying certain charges, which is also a source of income of the commercial banks.
7) **Agency Service:** Commercial banks perform numerous agency services on behalf of their clients, such as collection and payment of cheques or bills etc. Commercial banks charge commission for such services which earn income for them.
8) **Brokerage in Purchase or Trade of Shares:** Banks also earn through brokerage in purchasing or trading shares.
9) **Foreign Exchange:** Commercial banks earn profit by buying and selling foreign exchange.
10) **Import-Export:** Commercial banks earn income through commission or service charges for the role it plays in international trade and transactions.
11) **Letter of Credit:** Banks charge commissions for issuing letters of credit on behalf of importers.
12) **Trustee:** Banks also charge commissions for performing services as trustee.

10.5 Expenditures of Commercial Banks

Commercial banks make following expenditures in operating its business:

1) Giving interest to the clients on their deposits
2) Giving interest to the central bank on the borrowed amount
3) Giving interest to commercial banks for the received loans
4) Payment of salaries and allowances to the employees
5) Allowances of directors and managers
6) Auditor's charges
7) Charges for cases or other legal measures for collecting unrecovered loans
8) Rent for offices and warehouses
9) Tariffs and taxes
10) Insurance Premium

11) Charges for making correspondence through post office, telephone, telex, fax, swift etc.
12) Advertisement cost
13) Training charges of the employees

Activity : Which is the most popular commercial bank of your locality? Mention some reasons of that.

Sample Questions

Multiple Choice Questions

1. Which one is the source of income of commercial banks?

A. Rent of lockers B. Insurance Premium
C. Tariffs and taxes D. Auditor's bill

2. In organizational operation, commercial banks –

i. spend money in advertisement.
ii. charge profit on deposited money in savings accounts.
iii. gives advance for apprenticeship.

Which one of the following is correct?

A. i and ii B. i and iii
C. ii and iii D. i, ii and iii

Read the following stem and answer to question number 3 and 4.

Garments trader Mr. Rafique is involved in international trading. He always takes help from commercial banks for his business.

3. On behalf of Mr. Rafique, commercial banks –

i. help in making payments of foreign buyers and sellers.
ii. issue letters of credit.
iii. distribute profit.

Which one of the following is correct?

A. i and ii B. i and iii
C. ii and iii D. i, ii and iii

4. Which is the indirect objective of commercial banks?

A.Employment creation B. Public welfare
C. Equitable distribution of wealth D. Medium of exchange

Creative questions

1. Mrs. Shila Rozario holds a high position in a commercial bank. That has enabled her to help out two of her neighbours namely Mr. Md. Araf and Mr. Mridul in their businesses. Mr. Mridul is an international trader of jute, and Mr. Md. Araf is involved with real estate, where he requires borrowing a large amount of money. So, they both had to take assistance from her. Mrs. Rozario said, this is how we try to serve people of the country, service to people is our main mission.

   A. What is paid-up capital?
   B. How does a commercial bank create its credit deposit?
   C. Describe what type of bank officer Mrs. Shila is, considering the nature of her work.
   D. 'Service to people is our main mission' – evaluate this statement made by Mrs. Rozario.

2. Worrying about the present social condition, Ms. Shaila Shabnam sought suggestion from a financial organization regarding her ornaments and valuable documents. She adhered to the suggestions given by the organization. While going to purchase a land with money in cash, she loses her money on her way to Savar.

   A. What is a reserve fund?
   B. How does a bank provide security for money? Explain.
   C. What measures will Ms. Shaila Shabnam take regarding her valuable documents and ornaments? Explain.
   D. What role can a financial organization play to avoid the accident faced by Ms. Shaila Shabnam? Explain.

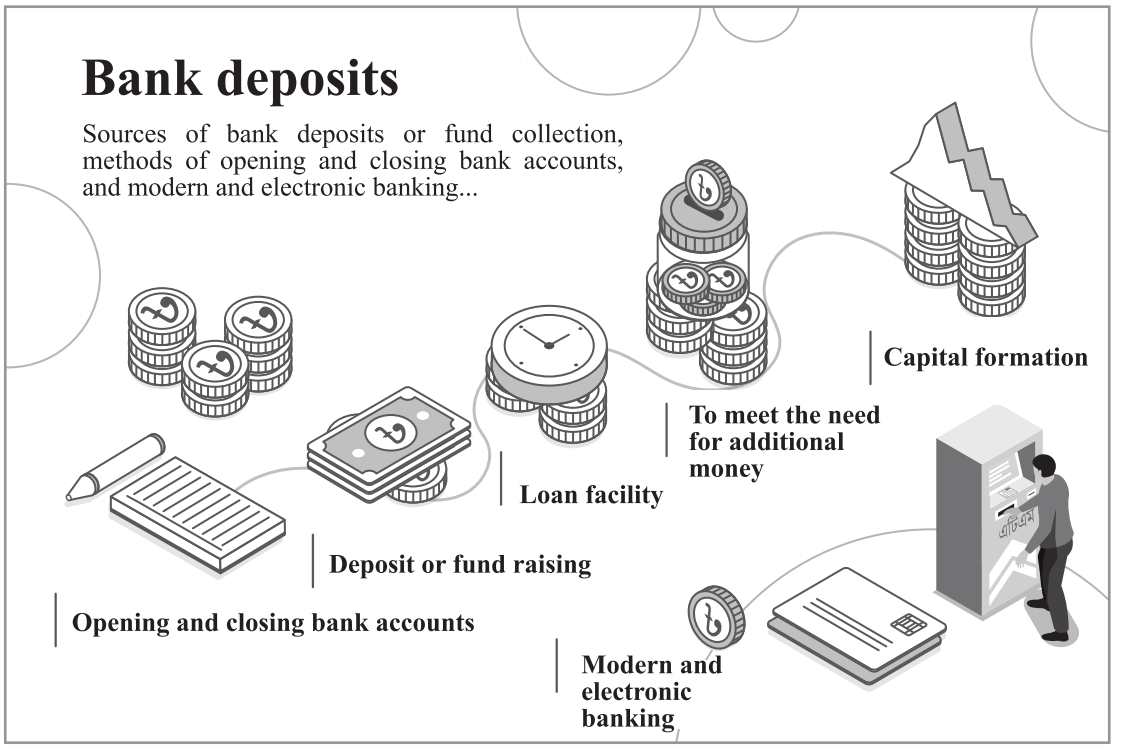
Short questions

1. What is a letter of credit (L/C)? Explain.
2. How a bank forms capital? Explain
3. How do banks help in import and export trade?
4. Mention the four expenditure sector of a commercial bank.
5. Explain how banks earn money by discounting bills of exchange.

Chapter Eleven

Bank Deposit

Generally bank runs its business activities thriugh the collection of deposits. In this chapter, we will be introduced with the sources of collecting deposits or funds, opening bank account and its closure system as well as some new services of modern and electronic banking.



After reading this chapter we shall be able to–

- explain the concept of bank deposits.
- describe objectives and importance of bank deposits.
- analyze different bank account.
- practise how to open a bank account.
- assess the modern banking services.

11. The concept of bank deposit

Deposti is the main source of banking business. Deposit can be collected in many ways. In particular, commercial banks collect deposit through opening different bank accounts on the basis of needs of the clients and organization. Generally, commercial banks collect deposit through current, savings and fixed accounts and then utilize it effectively.

11.1 Purposes and Importance of Bank Deposits

Importance of bank deposit or bank account has completely different significance from the client's or depositor's and bank's perspectives. Again, in mirco-economics bank deposits play some important roles. These are briefly demonstrated in the chart below:

For Clients	For the Bank	Role in Micro-Economics
1. Security of money 2. Business transaction 3. Loan facility 4. Risk-free investment 5. Availing service 6. Meeting demand of excess fund	1. Receiving deposit 2. Investment 3. Foreign Exchange	1. Creating a habit of saving 2. Building capital 3. Investment and production 4. International trade

Chart number: 11.1: Purposes of bank deposit

A. For Clients

1) **Security of Money**: One of the main purposes of bank is to ensure security of surplus money of the clients.
2) **Business Transaction:** Banks make business transaction through cash or other banking products, such as cheques, bills of exchange, bank draft etc.
3) **Loan Facility:** Banks offer loans to its current or savings account holders if needed. To receive this facility its necessary to open a bank account.
4) **Risk-free Investment:** Banks offer interests in certain rates to its depositors. It does not involve any risk like making an investment in the share market. Therefore it is a risk-free investment.

5) **Availing Services:** Banks offer various welfare activities to clients for opening a bank account and this attracts people to preserve bank accounts.
6) **Meeting Demand of Excess Fund:** Banks allow their clients to overdraft so that they become attracted to deposit money.

B. For the Bank

1) **Collecting Deposit**: Banks accept the savings of people as deposits through various accounts and create their fund.
2) **Investment:** Banks invest the money collected from their clients in various profitable sectors. So it is a major objective of banks to ensure profitable investment.
3) **Foreign Exchange:** Banks also do business of foreign exchange, where sometimes the clients need to open bank accounts to receive the facilities offered by the banks.

C. In National Economic Development

1) **Forming a Habit of Saving:** People form a habit of saving by opening bank accounts.
2) **Creating Capital:** Idle savings of people accumulate through bank account and create capital.
3) **Investment and Production:** Investment increases because of bank accounts which play important role in a country's production and economic growth.
4) **Employment Generation:** New employments are created due to enhanced economic activities facilitated by investment through bank accounts.
5) **International Trade:** Banks participate in export-import business through their clients' accounts and increase international trade.

11.2 Kinds of Bank Accounts

Banks offer scopes for opening various kinds of accounts according to their clients' demand. Bank accounts can be categorized into the following types based on people's occupation, need, time, location and demand:

1) Current Account
2) Savings Account
3) Fixed Deposit

In addition to the above three accounts, banks offer following more types of accounts

4) School Savings Account
5) Insurance Savings Account
6) Foreign Savings Account
7) Deposit Pension Scheme Account
8) Loan Deposit Account
9) Resident Foreign Currency Deposit Account (RFCD)

1) **Current Account:** The kind of account that facilitates a client to deposit and withdraw money whenever a client wants is called a current account. This type of account is more suitable for businesspersons and usually no interest is offered for such an account. More than deposited amount of money can be withdrawn in such an account.
2) **Savings Accounts:** The account in which money can be deposited any time, but withdrawn twice a week or in such regulated frequency is called savings account. Usually fixed income people who are not involved in business open such accounts. A small rate of interest is offered for such accounts. However, now a days some banks don't impose any restrictions in frequency of depositing or withdrawing money.
3) **Fixed Deposit:** When a bank account is opened for a certain period of time, it is called fixed deposit. A fixed deposit account can usually be opened for a period of one month, three months, six months, one year, two years, five years etc. In such an account, high rates of interest is offered but a client cannot withdraw his/her money. However, the client may be allowed to withdraw money before the period ends if urgently needed, but in such a situation he/she will not be able to get any interest.
4) **School Savings Account:** Such an account is opened to create a tendency of savings among school students. The students deposit their savings in this kind of account.
5) **Insurance Savings Account:** Both life insurance and current account facilities are offered for such an account. A depositor is required to save a certain amount of money in this kind of account.
6) **Foreign Exchange Savings Account:** Any person or organization earning foreign currency can open such an account. Only foreign exchange is transacted in this kind of account.

7) **Deposit Pension Scheme Account:** A certain amount of money is deposited every month within a certain time-frame. Money is thus saved for a certain period and at the end of this period the total savings is paid back along with a certain percentage of interest.

8) **Loan Deposit Accounts:** A businessperson, industrialist or any other borrower is given loan through cheque to transfering client's accounts for which he/she needs to open an account in the borrowing bank. The borrower can withdraw money according to his requirement from that account. Thus the deposit and credit are circulated.

9) **Resident Foreign Currency Deposit Account:** This kind of account is customized for those citizens of a country who regularly travel abroad. This account is helpful when the stipulated quota of using foreign currency is not enough during overseas travel. Usually exporters and importers as well as people involved in business relation or consultation services with foreign companies take this service.

Activity: Make a plan as a student, how you can create savings.

11.3 Things to Consider while Opening a Bank Account

You may find several banks nearby. You now intend to open an account with a bank. But how will you decide which bank you will open your account with? Consider the following points while opening a bank account:

1) **Location of Bank:** Before opening an account, a depositor considers location of bank from his/her business centre or his/her residence.

2) **Efficiency:** Efficiency of the employees of bank is one of the issues to be considered before opening a bank account.

3) **Multifarious Services:** The bank that offers diverse services is more suitable for opening an account.

4) **Foreign Exchange:** Every branch of a bank cannot do foreign exchange. If you need to have foreign exchange facilities, you should examine whether the bank in which you intend to open your account is allowed to deal with foreign exchange.

5) **Good-will:** Good-will of a bank plays an important role in considering whether to open account. The bank that is better-known and older has a better good-will.

6) **Branches:** The bank that has more branches is more suitable.

7) **Scheduled Bank:** As the central bank, Bangladesh bank recognizes better banks as scheduled banks. Scheduled banks are considered more secured compared to non-scheduled banks.

8) **Loan Facility:** The bank which has more liberal policy in offering loan is more preferred.

9) **Interest:** Clients prefer the banks that offer relatively higher interest on deposits and lower interest on loan is more acceptable.

10) **Service Tariffs:** It's better to open an account with the bank that charges lower tariffs on more services.

11) **Electronic Banking:** The banks which offer services like online banking, any branch banking, ATM facilities etc. are nowadays more attractive to the potential clients.

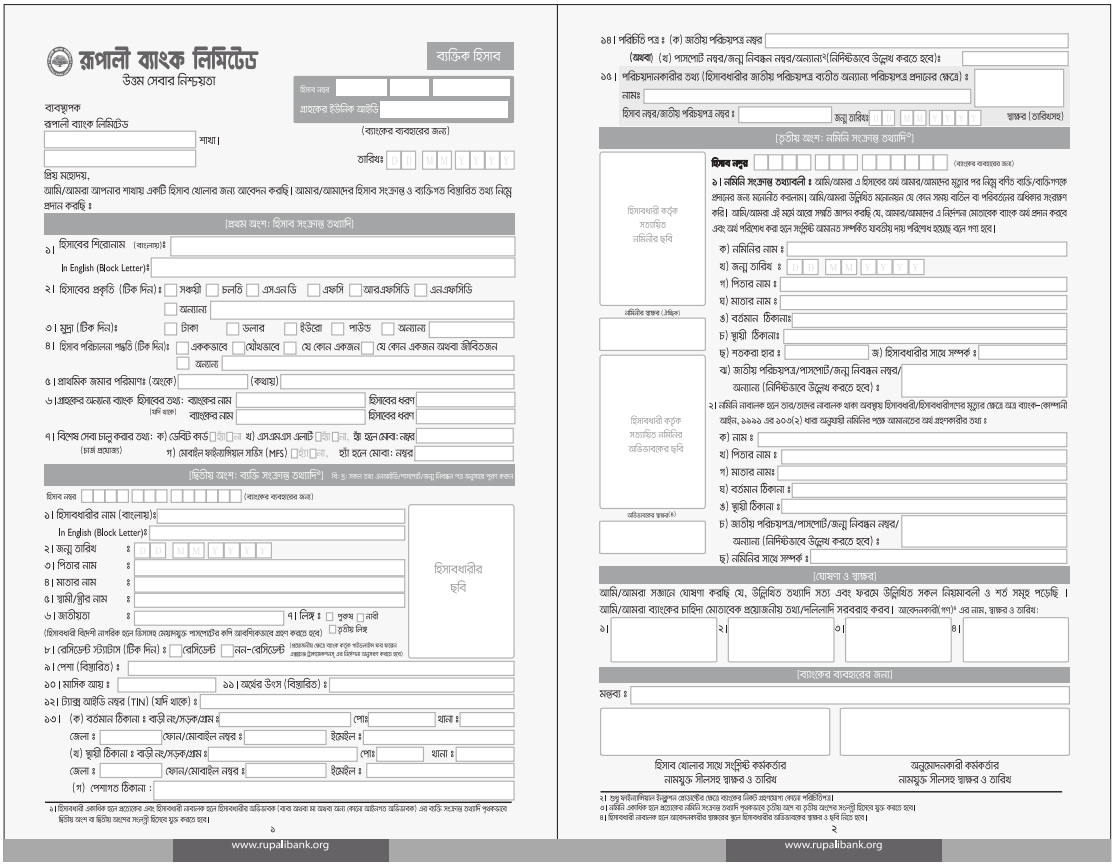
11.4 How to Open a Bank Account

A client may open different types of accounts in different banks according to his/her purpose and requirement. When he/she needs to make transaction of large amount of money and in high frequency for business or trade, it's better to open a current account. Otherwise savings account is preferable for both transaction and saving purposes. However, a client opens a fixed deposit account only if he/she is interested in making time-bound saving. To open any kind of account, a client is required to fill-in a client's details form. A sample of client's identity form is demonstrated in picture number 11.2. In this form, a client usually gives details of him/herself and his/her transactions:

1. Filling and submitting the application form
2. Providing necessary documents and information

Customer's name	Present address
Source of income	Permanent address
Copy of National ID card/passport	Work address
Coustomer’s occupation	Phone number, etc.
Customer's photograph	Nominee's photograph
Amount of deposit	

3. Identity of introducer
4. Choice of account type
5. Initial deposit



রূপালী ব্যাংক লিমিটেড
উত্তম সেবার নিশ্চয়তা

ব্যক্তিক হিসাব

হিসাব নম্বর
গ্রাহকের ইউনিক আইডি
(ব্যাংকের ব্যবহারের জন্য)

ব্যবস্থাপক
রূপালী ব্যাংক লিমিটেড
শাখা।

তারিখঃ D D M M Y Y Y Y

প্রিয় মহোদয়,
আমি/আমরা আপনার শাখায় একটি হিসাব খোলার জন্য আবেদন করছি। আমার/আমাদের হিসাব সংক্রান্ত ও ব্যক্তিগত বিস্তারিত তথ্য নিম্নে প্রদান করছি ঃ

[প্রথম অংশ: হিসাব সংক্রান্ত তথ্যাদি]

১। হিসাবের শিরোনাম (বাংলায়)ঃ
In English (Block Letter)ঃ

২। হিসাবের প্রকৃতি (টিক দিন)ঃ ☐ সঞ্চয়ী ☐ চলতি ☐ এসএনডি ☐ এফসি ☐ আরএফসিডি ☐ এনএফসিডি
☐ অন্যান্য

৩। মুদ্রা (টিক দিন)ঃ ☐ টাকা ☐ ডলার ☐ ইউরো ☐ পাউন্ড ☐ অন্যান্য

৪। হিসাব পরিচালনা পদ্ধতি (টিক দিন)ঃ ☐ একাকভাবে ☐ যৌথভাবে ☐ যে কোন একজন ☐ যে কোন একজন অথবা জীবিতজন
☐ অন্যান্য

৫। প্রারম্ভিক জমার পরিমাণঃ (অংকে) (কথায়)

৬। গ্রাহকের অন্যান্য ব্যাংক হিসাবের তথ্যঃ ব্যাংকের নাম হিসাবের ধরণ
(যদি থাকে) ব্যাংকের নাম হিসাবের ধরণ

৭। বিশেষ সেবা চালু করার তথ্যঃ ক) ডেবিট কার্ড ☐হ্যাঁ ☐না খ) এসএমএস এলার্ট ☐হ্যাঁ ☐না, হ্যাঁ হলে মোবাঃ নম্বর
(চার্জ প্রযোজ্য) গ) মোবাইল ফাইন্যান্সিয়াল সার্ভিস (MFS) ☐হ্যাঁ ☐না, হ্যাঁ হলে মোবাঃ নম্বর

[দ্বিতীয় অংশ: ব্যক্তি সংক্রান্ত তথ্যাদি*] বি: দ্র: সকল তথ্য এনআইডি/পাসপোর্ট/জন্ম নিবন্ধন পত্র অনুযায়ী পূরণ করতে হবে

হিসাব নম্বর (ব্যাংকের ব্যবহারের জন্য)

১। হিসাবধারীর নাম (বাংলায়)ঃ
In English (Block Letter)ঃ

২। জন্ম তারিখ ঃ D D M M Y Y Y Y

৩। পিতার নাম ঃ

৪। মাতার নাম ঃ

৫। স্বামী/স্ত্রীর নাম ঃ

৬। জাতীয়তা ঃ ৭। লিঙ্গ ঃ ☐ পুরুষ ☐ নারী
(হিসাবধারী বিদেশী নাগরিক হলে হিসাবের মেয়াদযুক্ত পাসপোর্টের কপি আবশ্যিকভাবে গ্রহণ করতে হবে) ☐ তৃতীয় লিঙ্গ

৮। রেসিডেন্ট স্ট্যাটাস (টিক দিন) ঃ ☐ রেসিডেন্ট ☐ নন-রেসিডেন্ট (নন-রেসিডেন্ট ক্ষেত্রে ব্যাংক কর্তৃক ফরেনএক্সচেঞ্জ ফরম ফরওয়ার্ড এক্সচেঞ্জ টেলিগ্রাফিক ট্রান্সফারসহ, এর হিসাবের অনুকূলে প্রদান করতে হবে)

হিসাবধারীর ছবি

৯। পেশা (বিস্তারিত) ঃ

১০। মাসিক আয় ঃ ১১। অর্থের উৎস (বিস্তারিত) ঃ

১২। ট্যাক্স আইডি নম্বর (TIN) (যদি থাকে) ঃ

১৩। (ক) বর্তমান ঠিকানা ঃ বাড়ি নং/সড়ক/গ্রাম ঃ পোঃ থানা ঃ
জেলা ঃ ফোন/মোবাইল নম্বর ঃ ইমেইল ঃ
(খ) স্থায়ী ঠিকানা ঃ বাড়ি নং/সড়ক/গ্রাম ঃ পোঃ থানা ঃ
জেলা ঃ ফোন/মোবাইল নম্বর ঃ ইমেইল ঃ
(গ) পেশাগত ঠিকানা :

১। হিসাবধারী একাধিক হলে প্রত্যেকের এবং হিসাবধারী নাবালক হলে হিসাবধারীর অভিভাবকের (বাবা অথবা মা অথবা অন্য কোনো আইনানুগ অভিভাবক) এর বাড়ি সংক্রান্ত তথ্যাদি পৃথকভাবে দ্বিতীয় অংশ ও দ্বিতীয় অংশের সংশ্লিষ্ট ঘ্রিসে যুক্ত করতে হবে।

১

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১৪। পরিচিতি পত্র ঃ (ক) জাতীয় পরিচয়পত্র নম্বর
(অথবা) (খ) পাসপোর্ট নম্বর/জন্ম নিবন্ধন নম্বর/অন্যান্য (নির্দিষ্টভাবে উল্লেখ করতে হবে)ঃ

১৫। পরিচয়দানকারীর তথ্য (হিসাবধারীর জাতীয় পরিচয়পত্র ব্যতীত অন্যান্য পরিচয়পত্র প্রদানের ক্ষেত্রে) ঃ
নামঃ
হিসাব নম্বর/জাতীয় পরিচয়পত্র নম্বর ঃ জন্ম তারিখ D D M M Y Y Y Y স্বাক্ষর (তারিখসহ)

[তৃতীয় অংশ: নমিনি সংক্রান্ত তথ্যাদি*]

হিসাবধারী কর্তৃক সত্যায়িত নমিনির ছবি

নমিনির স্বাক্ষর (আঙ্গুল)

হিসাব নম্বর (ব্যাংকের ব্যবহারের জন্য)

১। নমিনি সংক্রান্ত তথ্যাবলী ঃ আমি/আমরা এ হিসাবের অর্থ আমার/আমাদের মৃত্যুর পর নিম্নে বর্ণিত ব্যক্তি/ব্যক্তিগণকে প্রদানের জন্য মনোনিত করলাম। আমি/আমরা উল্লিখিত মনোনয়ন যে কোন সময় বাতিল বা পরিবর্তনের অধিকার সংরক্ষণ করি। আমি/আমরা এই মর্মে আরো সম্মতি জ্ঞাপন করছি যে, আমার/আমাদের এ নির্দেশনা মোতাবেক ব্যাংক অর্থ প্রদান করবে এবং অর্থ পরিশোধ করা হলে সংশ্লিষ্ট আমানত সম্পর্কিত যাবতীয় দায় পরিশোধ হয়েছে বলে গণ্য হবে।

ক) নমিনির নাম ঃ
খ) জন্ম তারিখ ঃ D D M M Y Y Y Y
গ) পিতার নাম ঃ
ঘ) মাতার নাম ঃ
ঙ) বর্তমান ঠিকানাঃ
চ) স্থায়ী ঠিকানাঃ
ছ) সচকরা হার ঃ জ) হিসাবধারীর সাথে সম্পর্ক ঃ
ঝ) জাতীয় পরিচয়পত্র/পাসপোর্ট/জন্ম নিবন্ধন নম্বর/
অন্যান্য (নির্দিষ্টভাবে উল্লেখ করতে হবে) ঃ

হিসাবধারী কর্তৃক সত্যায়িত নমিনির অভিভাবকের ছবি

অভিভাবকের স্বাক্ষর(*)

২। নমিনি নাবালক হলে তার/তাদের নাবালক থাকা অবস্থায় হিসাবধারী/হিসাবধারীগণের মৃত্যুর ক্ষেত্রে প্রত্র ব্যাংক-কোম্পানী আইন, ১৯৯১ এর ১০৩(২) ধারা অনুযায়ী নমিনির পক্ষে আমানতের অর্থ গ্রহণকারীর তথ্য ঃ

ক) নাম ঃ
খ) পিতার নাম ঃ
গ) মাতার নামঃ
ঘ) বর্তমান ঠিকানা ঃ
ঙ) স্থায়ী ঠিকানা ঃ
চ) জাতীয় পরিচয়পত্র/পাসপোর্ট/জন্ম নিবন্ধন নম্বর/
অন্যান্য (নির্দিষ্টভাবে উল্লেখ করতে হবে) ঃ
ছ) নমিনির সাথে সম্পর্ক ঃ

[ঘোষণা ও স্বাক্ষর]

আমি/আমরা সজ্ঞানে ঘোষণা করছি যে, উল্লিখিত তথ্যাদি সত্য এবং ফরমে উল্লিখিত সকল নিয়মাবলী ও শর্ত সমূহ পড়েছি । আমি/আমরা ব্যাংকের চাহিদা মোতাবেক প্রয়োজনীয় তথ্য/দলিলাদি সরবরাহ করব। আবেদনকারী (গণ)* এর নাম, স্বাক্ষর ও তারিখ:

১। ২। ৩। ৪।

[ব্যাংকের ব্যবহারের জন্য]

মন্তব্য ঃ

হিসাব খোলার সাথে সংশ্লিষ্ট কর্মকর্তার নামসহ স্বাক্ষর ও তারিখ

অনুমোদনকারী কর্মকর্তার নামসহ সীলসহ স্বাক্ষর ও তারিখ

২। শুধু ফাউন্ডেশনাল ইনস্ট্রুমেন্ট মোডেমেন্ট ক্ষেত্রে ব্যাংকের নিজস্ব প্রয়োজনে ফরমে পরিবর্তিত।
৩। নমিনি একাধিক হলে প্রত্যেকের নমিনি সংক্রান্ত তথ্যাদি পৃথকভাবে তৃতীয় অংশ বা তৃতীয় অংশের সংশ্লিষ্ট ঘ্রিসে যুক্ত করতে হবে।
৪। হিসাবধারী নাবালক হলে আইনসম্মতভাবে স্বাক্ষরের স্থলে হিসাবধারীর অভিভাবকের স্বাক্ষর ও ছবি দিতে হবে।

২

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Chart number: 11.2: A Sample of Bank Account Opening Form and Client's Details Form

In addition to these details, an intended client needs to apply with a reference and signature of an existing client of the bank. If the bank is satisfied after scrutinizing all provided information, it opens an account for the applicant with a minimum initial deposit. All the details of the client furnished in the application form are saved in a database of the bank. To open an account, the applicant has to submit his/her recent picture and detail information together with pictures and details of nominee in case of his/her absence. A copy of the applicant's national identity card or passport or driving license is also required to open the account. While opening an account for a company, a copy of trade license and resolution of company meeting are also required.

11.5 How to Close a Bank Account

A client can close his/her bank account in various ways, which are discussed below:

1) Client's request letter to close the account (request letter approved by the company meeting in case of a company account)
2) Unused cheque-book, pass-book, debit/credit card must be returned.

If there is no unpaid loan from the client, the bank closes his/her account when requested.

11.6 Various Electronic Banking Products and Services

Development of computer and electronic products paved the way for innovative electronic products in banking business. Bangladesh has also progressed in electronic banking keeping pace with the modern world. In such a service, banking facility is available for 24 hours. We shall now be familiar with various electronic banking products:

1) Debit Card and Credit Card 2) ATM 3) Mobile Banking
4) SMS Banking
5) Internet Banking
6) Any Branch Banking/Online Banking
7) Call Centre

1) Debit Card and Credit Card

This is a kind of plastic card which a bank issues for its clients. Through this card, a client can purchase without any cash and withdraw money through ATM machine whenever needed. Debit card is used if the client has money in his/her account. The main difference between a debit card and a credit card is that a client can purchase with his/her debit only if there is money in his/her account, but he/she can buy products on credit even if he/she does not have money in the bank account. Credit card is a form of personal loan which the client has to pay with interest after a certain period of time. In this case, there is no obligation to have a bank account of the client.



Credit card and Debit card

2) **ATM**

ATM (Automated Teller Machine) is an electronic device through which a client can make some primary transactions such as withdrawing money, balance information, deposit cash or cheques without any help or presence of bank employees. This is a kind of plastic card which a bank issues for its clients. A client can, therefore, withdraw money by using this machine beyond 10 A. M. to 5 P. M. office hours.



ATM

3) **Mobile Banking**

Mobile banking is a type of banking service through which a customer can carry out transactions using a mobile number. The customer's identity is verified, and this type of service is provided. Besides, nowadays, various transactions are done through mobile apps like bKash. For example: bKash, Nagad, and Rocket, etc.



Mobile Banking

4) **SMS Banking**

Providing various types of banking services such as account balance information, request for cheque book etc. through SMS is called SMS banking.



SMS Banking

5) **Internet Banking**

Now-a-days client can transact his account through internet by using a website and a password. client can check his statement of account and can pay bill by internet service.

6) **Any Branch Banking**

A client with account in one branch of the bank can make transaction from any other branch of the country by availing this service. For example, a client after opening his account at branch in Dhanmondi, Dhaka can make transaction in any branch located in Chattogram.

7) Call Center

Staying home, client can take the opportunity to collect account related information through a phone call. He can also send any complaint related with account.

11.7 Prospect of Modern Electronic Banking System and Bangladesh

Electronic banking system is now providing valuable banking facilities including money transfer, delivery of remittance and 24 hour banking services to remote areas of the country. To provide these services, initially a large investment is required by the bank. However, greater number of people can be provided with these services through a small number of skilled employees by charging commission and service charge. These banking facilities are more convenient in terms of both service and income. That is why like many other countries of the world, e-banking is gaining a huge acceptance in Bangladesh. Electronic banking is playing a vital role in providing services to a large number of people living in distant locations of the country. It is hoped that banking sector will further expand to provide its facilities to all the people of the country irrespective of rich or poor, educated or uneducated. This banking system has a growing popularity every day because it can facilitate banking service 24 hours a day. Clients of banks in Bangladesh are becoming more inclined to e-banking facilities day by day because the service is becoming cheaper and more easily available in present competitive market.

Activity: Which electronic banking is mostly used in your locality? Make a list on the basis of priority.

Sample Questions

Multiple Choice Questions

1. Which is the purpose of deposit for clients?
   A. Loan facility
   B. Formation of capital
   C. Investment
   D. Foreign exchange
2. Which is the place for risk-free investment?
   A. Business
   B. Share Market
   C. Bank
   D. Private Organization

Read the following stem and answer to question numbers 3 and 4

Mintu Borua and his family visited Cox's Bazar.Where he made all his expenditures by using an electronic card. When his deposited money against the card finished, he asked his brother to deposit money in his bank account. Then he withdrew some money and returned Dhaka after completion of his visit.

3. Which of the following Mintu Borua availed to withdraw money?

A. Online Banking B. ATM

C. SMS Banking D. Internet Banking

4. Mintu Borua's tour was successful due to

i. Internet banking

ii. Online banking

iii. SMS banking

Which one of the following is correct?

A. i and ii B. i and iii C. ii and iii D. i, ii and iii

Creative questions

1. Mr. Sabbir is an import-export agent. He opened an account in "Fresh" Bank to facilitate his business transactions. Recently, he purchased some raw materials from Chittagong and Feni, which he paid through the Dhaka branch of "Fresh" Bank. He inaugurated a new computer showroom in Dhaka city. For which he withdrew an additional 10 lakh taka from Fresh Bank. He also purchased 25 laptops of modern version from Japan. Which mean he paid through 'Fresh' Bank.

A. What is a school savings account?
B. Explain the role of banks in capital formation.
C. What type of account has Mr. Sabbir opened in "Fresh" Bank? Explain.
D. According to stem, analyze the importance of bank deposits in the customer's field.

2. Safina, a rice trader from Sherpur, maintains an account in "Shaili" Bank. This bank conducts transactions in different parts of the country through a main office. Safina has to visit the bank to know the balance of her bank account. On the other hand, Safina can check the balance of her account without going to the Shawkhin bank to check the balance from a regular bank. She makes purchases through her card. She can send money to her daughter studying in Dhaka from this bank using her mobile phone.

A. What is a listed bank?
B. What type of account can be opened that also provides insurance benefits? Explain.
C. What types of banking services are available in Shawkhin bank? Explain.
D. Analyze the rationale for introducing Shawkhin bank-like services in Shaili Bank.

Short Questions

1. Why banks allow you to open different types of accounts? Explain.
2. What is meant by Deposit Pension Scheme Account?
3. From which account can bankover draft money be withdrawn? Explain.
4. What is internet banking? Explain.
5. What is a fixed account? Explain.

Chapter Twelve

Bank and Client

Bank is a financial service oriented institution. Among all activities of bank, cliental service is very important. On the other hand, the clients have special responsibility towards bank. In this chapter, we will able to know the details of bank-client relationship, duties and responsibilities of bank towards clients and maintaining secrecy of the bank accounts.



After reading this chapter we shall be able to–

- evaluate the nature of Bank- Client relationship
- discribe the responsibility of banks and clients towards each other.
- explain the necessity of account security.

12.0 Introduction

Main ideology of a bank is the relationship and belief between the Bank and Client. If any step of each party is against this belief and trust, then relationship between them gets disrupted, which causes the business to be dissolved.

12.1 Nature of Bank-Client Relation

Person , corporations ro companies involed in banking business are called "Bankers". Such a way client means that person who is involved with the bank through his account or any of the service of the bank. On the basis of the functions and services provided by the bank to its clients, Bank - Client relationship can be considered as:

1. Debtor-Creditor relationship: When a client deposits money in the bank, the bank is a debtor and oppositely other party is creditor. Thus this relationship grows through depositing money by the client.

2. Contractual relationship: This relationship establishes through opening a bank account by the client. This relationship creates rights and responsibilities for both the parties. Under this contract, bank remains liable to return the client's deposited money.

3. Client's trustee: Most of the time banks give protection to the client's valuables, documents etc. through providing the locker services. This relationship can be considered as legal relationship.

4. Mortgage provider and receiver relationship: Bank provides loan against the client's various property.Thus the relationship between mortgage provides & receives is created.

5. Agency relationship: Payment dues and collect receivables are on behalf of the clients are the responsibilities of bank.

12.2: Bank's responsibilities towards the clients

According to the principle of banking business, doing welfare and protecting client's interest are wholly the responsibilities of the bank.

1. Pay back money: Generally bank is bound to pay back the client's money. But it is paid on the fulfillment of some conditions specified by the contract. For example: If money is deposited in the current or savings account, client can withdraw money by writing the cheque and any approval of the bank is not needed. But the client has to abide by some restrictions.

2. Secrecy of account: Bank never discloses any information of the clients except asked or advised by the Court, Bangladesh Bank or respective client.

3. Carrying on depositor's order: According to the order of the depositor, bank utilizes the deposited money. For example, if client orders bank to repay the dues to some specified person or party, bank does this as per order. In the same way if client orders bank, after meeting the condition, to collect the receivable, cheque or bill from a third party, the bank also does the same.

4. Exchanging of interest and service fee: Bank collects money of receivable interest on behalf of the client and deposits properly to the client's account and service fee is deducted from his account.

5. Opportunity of easy loan repayment: Banks will have adequate fair dealing with the borrower for loan repayment and will give the client suitable time and opportunity to repay the loan.

Inquiry based activity: Find someone from your family or close relations who is a bank client. Make a list asking him/her what are the services he/she desires from the bank as a client.

12.3 Client's responsibilities towards the bank

As bank has responsibilities towards the client, the client also has responsibilities towards the bank in a similar way. Client's responsibilities are the following:

1. Honesty: Client should show the honesty to maintain the relationship towards the bank. When opening a bank account, client should disclose all required information to the bank.

2. Loan repayment: Client should pay installment of loan as per repayment schedule. So if loan cannot be repaid according to contract, then bank will collect money by seizuring or selling the mortgaged property of the client by the adoption of law.

3. Collection of interest: If there is overdrawing in current account, banks cut interest in the case of a borrower. Though a bank provides other benefits and services, it takes off some reasonable service charge. It is also the responsibility of a client to repay the interest and principal of a loan as per contract.

4. Cautiousness: Clients have to follow cautiousness and rules in writing cheques. For example, there should be correct signature, correct date and money referred in the cheque should be in the account etc. By 'cheque', we understand a written order to a bank from the depositor.

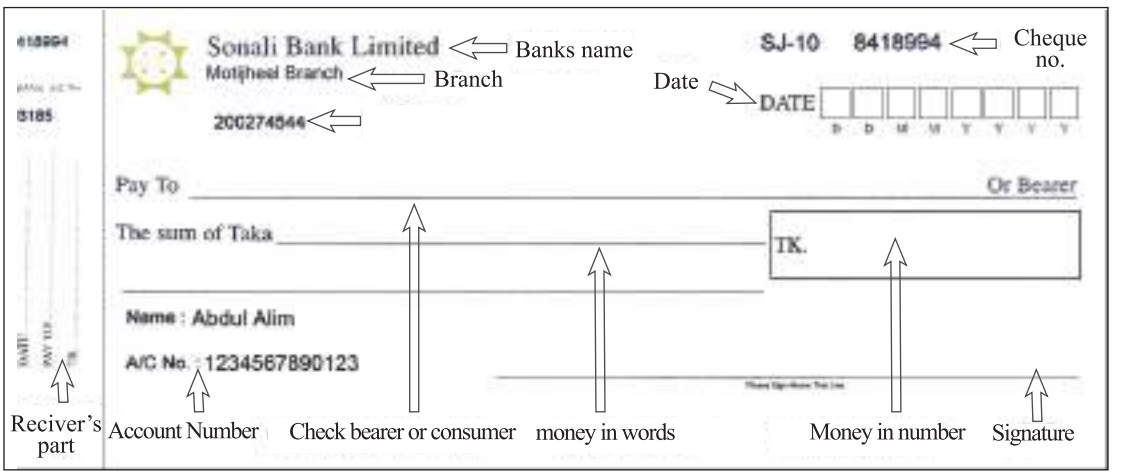
Cheque is a bill of exchange. Generally the following types of Cheques are available to use.

1. Bearer Cheque: In case of this Cheque, bank is bound by order of the client to pay the specified amount of money to the specified bearer within a specified time period.

2. Order Cheque: Order Cheque is such a cheque where the money of cheque cannot be drawn from bank without named person. An order cheque is generally issued to a specific named payee across the bank's account.

3. Crossed Cheque: When a bearer cheque or order cheque is marked with 2 parallel crossed lines in the left corner of it for assurance of the collection of money and security, the cheque is called a crossed cheque. Generally between the two parallel lines, 'A/C payee' or 'and co.' is written. Money of this type of cheque is withdrawn after depositing it in an account instead of withdrawing it directly in cash.

Activity : Different types of cheque, will be filled by groups.



Picture no 12.1: A specimen of MICR cheque
MICR (Magnetic ink character recognition)

12.4 Secrecy of bank account and related information regarding this

Relationship between the bank and client is of trust. This relationship dissolves only when conspiracy, fallacy or illegal activities occur. The possible reasons

those may dissolve the relationship between the bank and client:

1. Declared as bankrupt: If client is declared by the court as bankrupt, Bank-Client relationship dissolves.

2. Mental disorder: If client is not capable of doing the bank transaction or may not remember anything, at that time relationship will dissolve.

3. Garnishi order: If any Garnishi Order is enforced by the court, bank becomes bound to close the client account.

4. Bank's own decision: If client doesn't follow the bank's rules and principles, then bank may become bound to close the client's account.

5. Client's own decision: If client is not interested to continue his account, relation comes to an end.

6. Enmity due to war: If bank and client stay in a location on which division has taken place due to war, relationship dissolves.

7. Complete balance transfer: If client orders the bank to transfer all his account balance to the other bank, the client's account automatically closes down.

8. Death of client: Due to the death of the client account comes to an end.

9. Not making transactions for a long time: If any client doesn't make any transaction through the account for a long time, account of this client will be closed automatically.

Sample Questions

Multiple Choice Questions

1. What is Cheque?

A. Deed of contract
B. Written notice
C. Written order of the depositor
D. Personal document

2. Relationship between bank and client mainly is-

i. debtor-creditor relationship
ii. contractual relation
iii. social relationship

Which one of the following is correct?

A. i & ii
B. i & iii
C. ii & iii
D. i, ii & iii.

3. Which one is the bank’s responsibility towards a borrower?

A. To remit interest
B. To keep suitable mortgage

C. To lend small amount D. To give suitable time

Read the following stem and answer question no. 4

Sadia had been abroad for a long time, so her bank account was not active. She has now stopped all her bank transactions in order to permanently move abroad.

4. How did the relationship between Sadia and bank come to an end?

A. Due to the declaration by the court
B. Because of the decision of the bank
C. Due to long term discontinuation of transaction
D. Due to client's decision.

Creative Question

Mr. Abid is a customer of "Star" Bank. When he needed capital for his business, he mortgaged a piece of land and took a loan of 10 lakh taka for 10 years. A friend of Abid Saher went to the bank and asked how much money he had in his account and about the loan. The bank did not give him the information. The bank has been giving Abid Saher repeated notices to repay the loan amount with interest within 5 years.

A. What will be the relationship between the customer and the bank if Customers go bankrupt?
B. Explain "Order cheque is secure than bearer cheque".
C. Explain the nature of the relationship between Mr. Abid and the bank in terms of providing loans.
D. Do you think Star Bank has fulfilled its obligations to Mr. Abid as a customer? Answer with reasoning.

Short Questions

1. Why a bank is obliged to return the money deposited by its depositors on demand? Explain.
2. How a bank carries out the depositor's instructions? Explain.
3. How to make a cross check?
4. Why a garnishee order is issued? Explain.
5. Why a cheque is called a negotiable bill of exchange? Explain.

Chapter Thirteen

Central Bank

Different banks, insurances and other financial institutions are included in the financial and currency market of a country. For smooth functioning of the activities of these institutions, they require specific regulation and guidelines. The Central Bank plays a key role in preparing these regulations, providing guidelines, their implementation and control above all the economic development of the country. In this chapter, we will know the details about the Central Bank.



Picture: Bangladesh Bank

After reading this chapter we shall be able to–

- describe the concept of Central Bank.
- identify the objectives of Central Bank.
- analyze the functios of Central Bank.
- identify the relationship between Central Bank and Commercial Bank.
- evaluate the role of Central Bank in economic development.

13. The concept of Central Bank

During the 17th century, different kinds of banks were evolved in different regions; thus the money market controlling activity became most important activity. From this realization central bank was established. This bank couldn't leave money market in its own way rather it was liable to control the money market mechanism. At the very beginning of the civilization, central bank used to do its responsibilities in currency circulation, money supply and credit control.

13.1 Objectives of the Central Bank

Central Bank is the non-profitable public welfare based national institution. Implementing welfare activities and strengthening the economy are the main responsibilities of central bank. The objectives of the central bank can be classified in following ways:

1. Strong money market formation and control: Main objective of the central bank is forming, monitoring and controlling the money market.

2. Economic development: Achieving economic prosperity through economic planning and implementation is the objective of the central bank.

3. Notes and currency circulation: According to the market demand, central bank circulates notes and currency and thereby preserves the currency value.

4. Controlling foreign currency: Central bank maintains the foreign currency reserve and controls the exchange rate through the application of different control mechanism. Controling over foreign currency is inevitable to keep import and export in for our of national economy

5. Maintains currency value: Central Bank controls the home currency value with the intention of creating positive balance of trade.

6. Banker of the other Bank: Central Bank plays important role in structuring and building the efficiency of scheduled bank and non-scheduled bank and thus it acts as a banker of the other banks.

7. Acts as a clearing house: Central Bank provides services to the commercial banks in the resolution of different exchange and maintains co-ordination with the commercial bank all over the country.

8. Credit Control: One of the improtant objectives of central bank is to provide enough credits to the commercial banks if any excess credit is provided. Then central Bank has to ensure the financial market stability.

9. Gives advice to the Government: For the purpose of giving force in economic development of all internal and foreign aspects, central bank gives guidance and prepares plan and implements these.

10. Maintains price stability: Central Bank controls money supply to keep price level stable through applying different mechanism. Instability of price creates dull economy.

11. Bank of the government: Central Bank preserves money of the government and reconciles different transaction on behalf of the government.

12. Public welfare: As central bank is not a profit oriented company, it performs different social and national activities for public welfare.

13. Equal distribution of wealth: One of the objectives of the Central Bank is to ensure equal distribution of wealth of the country by formulating various projects and implementing them.

14.To Facilitate capital formation: By providing credit facilities to commercial banks, central bank increases the ability of their borrowers for capital formation.

15. Establishing organized banking system: Organized banking system development is another function of this bank.

16. Guide of banking system: Guiding other banks of the country is one of the main activities of the bank.

13.2 Functions of the Central Bank

Central Bank acts as a controller of money market and thus provides services towards the government, public and other banks and overall acts as a development body of the country.

(A) General Functions

1. **Notes and currency circulation:** Responsibility of circulating the money and currency is only vested upon central bank.

2. **Guardian of the money market:** Central Bank acts as a guardian and controller of the money market.

3. **Creation of easy medium of exchange:** This bank creates easy medium of exchange like currency, bill, hundi etc.

4. **Credit control:** One of the main functions of this bank is controlling the credit. Bank Rate policy, Open Market Operation, deposit rate etc. are the different mechanisms of credit control.

5. **Controls the purchasing power of currency:** By increasing and decreasing money supply, central bank maintains the currency value in the country.

6. **Controls foreign exchange:** Central Bank controls the exchange rate and preserves prestigious value for home currency.

7. **Maintains stability in price level:** By controlling money supply, central bank maintains stability in price level.

8. **Maintains foreign currency reserve:** Exchange rate of any country depends on the foreign currency reserve. So Central Bank preserves necessary amount of foreign currency.

9. **Development of banking:** Central Bank is responsible to develop the infrastructure of total banking sector.

10. **Creating employment opportunity:** By approving and permitting to open different branches, central bank creates opportunity for employment.

11. **Monitoring Govt. loan:** On behalf of the government, Central Bank monitors the uses and repayment of loan given by the government.

(B) Functions as a government bank

1. **Source of credit:** In financial crisis, government collects fund from Central Bank. So this bank is a source of government fund.

2. **Maintaining Government Fund:** Central Bank maintains government's fund, assets, and documents.

3. **Maintenance of accounts:** Central Bank maintains different accounts of the government.
4. **Handling of government transaction:** Central Bank provides supports in handling government documents.
5. **Purchase and sale of foreign currency:** On behalf of the country, central bank purchases and sells home currency and foreign currency.
6. **Advisor:** Central Bank acts as an advisor by involving in planning, policy making and implementing.
7. **Collection and maintenance of information and statistics:** Central Bank collects, coordinates and maintains different information and statistical data and reports in taking some plans.
8. **International relationship:** Central Bank helps to build relationship of government with the international financial organizations, foreign banks and other different foreign institutions.
9. **Representative of government:** Central Bank conducts different activities in home country and in foreign country as a representative of the government.

C) Banker of the other banks

1. **Approving and scheduling:** Central Bank does the activities of approving and scheduling the establishment of new banks.
2. **Opening new branch:** This bank provides approval for opening a new branch.
3. **Clearing House:** Central Bank resolves different inter-banking transactions through clearing houses.
4. **Lender of the last resort:** At the time of financial crises when fund cannot be collected from anywhere, Central Bank extends its financial support. So central bank can be called as Lender of the Last Resort.
5. **Controlling the activities of the commercial bank:** According to the rules, regulation and policy, Central Bank controls the activities of commercial banks.
6. **Examine the accounts:** Central Bank examines the accounts of the commercial banks.

7. **Advisor and consultant:** Central Bank provides different advice and consultancy related with banking issues to the commercial banks.
8. **Statutory reserve:** All scheduled banks are bound to retain specified portion of their total deposit to the central bank.
9. **Representative of other banks:** Central Bank is the representative of all scheduled banks.
10. **Recovery of loan:** This bank provides support in loan recovery of scheduled bank.
11. **Development in international trade:** For the expansion of international trade, central bank provides different support to the commercial banks.

D) Other functions

1. **Development in agriculture:** For the purpose of development in agricultural sector, central bank establishes agricultural bank under its direct supervision and makes arrangement to pay loan at low interest rate.
2. **Industrial development:** Central Bank extends its cooperation to the government in forming motivational plan and its implementation for the development of industrial sector.
3. **Development of co-operative bank:** Central Bank takes different initiatives for the development of co-operative banks.
4. **Research based activities:** To introduce different ways, policies, methods for the development of trade and commerce, this bank conducts many research activities.
5. **Ensuring the utilization of loan:** Another main responsibility of central bank is to ensure the proper utilization of floated loan.

13.3 Formation and management of central bank

Without one or two exceptions, all central banks of the world are formed under government ownership. In Bangladesh, central bank is known as "Bangladesh Bank". In Bangladesh Bank, as a chief of management, Governor is performing his responsibilities. As a chief of executive, deputy governors are co-operating the Governor.

In 1971 Bangladesh was born as an independent country. Being felt the necessity of a central bank, as a symbol of sovereignty, with the intension of economic restructuring of the financial sectors, Bangladesh Bank started its journey on 31 October in 1972 by the order named as " President Order - 127" in the Dhaka Office of the Local Deputy Governor of the then State Bank of Pakistan. However, effecting from 16 December, 1971 this ordinance was declared as the permanent and active rule of Bangladesh Bank. Bangladesh Bank is directed under the government ownership and is controlled by the same Governing Body of which the executive chief is Governor. 4 Deputy Governors, 12 Executive Directors and 1 Financial Advisor assist the Chief Executive. Moreover, Bangladesh Bank includes other officials in its management. Look at the organogram of Bangladesh Bank below.

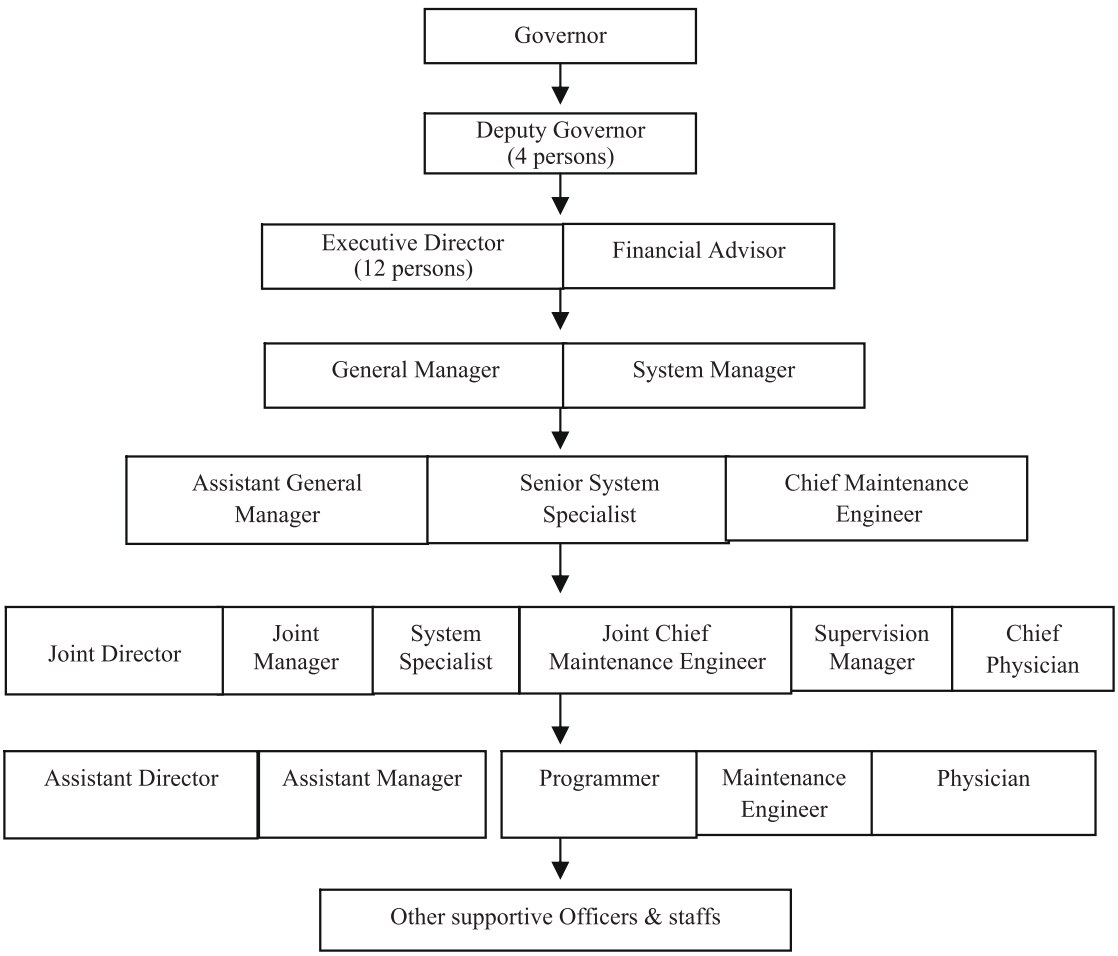


Figure 13.1: Organogram of Central Bank (Bangladesh Bank)

On the basis of divisions, functions of Bangladesh Bank can be classified as follows:

1. Note Issuing division
2. Banking Division
3. Accounts Division
4. Administrative Division
5. Banking Control Division
6. Bank Auditing Division
7. Exchange Control Division
8. Statistics Division
9. Secretariat Division

Activity: Mention some reasons of dependency of the commerical banks on the Central Bank.

13.4 Relationship between the Central Bank and Commercial Bank

From the view point of economic activity, specially as a guardian of money market, central bank has following relationships with the commercial bank:

1. Statutory Reserve: It is obligatory for the commercial banks to maintain fixed portion of their deposit as a statutory reserve with the central bank.

2. Clearing House: Central Bank provides the clearing house facility to the commercial banks and thus a good relation creates between them.

3. Working Paper: Commercial Bank has to send weekly or monthly working paper to the central bank. By analyzing the information of the working paper, central bank gives guidance to the commercial bank.

4. Information provider: Central Bank collects worldwide information of the money market, economic condition and other related information on banking.

5. Liquidity: Every commercial bank has to maintain specific portion of total deposit as liquid asset and central bank always monitors the liquidity position of the commercial bank to protect the client's interest.

6. Role as guardian: Central Bank acts as a guardian of the commercial banks.

7.Lender of the last resort: Central Bank provides loan to the commercial banks.

8. Benefit of scheduling: Central Bank provides advice, guidance, financial support to the scheduled bank.

9. Bank- Client relationship: Bank provides loan to the clients and clients keep their savings in the bank as deposit.

10. Assistance: Central Bank implements its plan and policy through commercial banks.

11. Banker of all Banks: Central Bank is closely related with the commercial banks as banker of the other banks.

Activity: Make a list of the fields of assistance that Central Bank extends to the commercial banks.

13.5 Role of Bangladesh Bank as a Central Bank in the economic development

Bangladesh Bank has great contribution in economic development of Bangladesh. Bangladesh Bank mainly:

1. Issue Notes
2. Maintain the foreign currency reserve
3. Conducts Government's Account.
4. In distributing the industrial and agricultural loan, this bank executes the policy of the government through commercial banks.
5. Controls scheduled and non- scheduled bank's activities and Monitoring Cell of Bangladesh Bank ties all commercial banks by rules and regulations.
6. Through the publication of economic and statistical information, Bangladesh Bank keeps aware of the entire scheduled banks.
7. Plays important role in transferring and handling the foreign currency.
8. Research Division of Bangladesh Bank provides guidance through different research based activities.
9. Through the monitoring of Rural Micro Credit projects and other special credit projects, this bank is struggling to ensure the economic freedom of the distressed class.
10. Creates employment opportunities to eliminate poverty.
11. Keeps on active rule to stabilize the price level by the controlling of foreign exchange rate.
12. Besides this, Bangladesh Bank assists government in implementing different developmental activities.
13. Nowadays Bangladesh Bank is contributing lots in protecting the law and order of the country which also has great economic impact.

Sample Questions

Multiple Choice Questions

1. What is the objective of Central Bank?

A. Acting as medium of exchange
B. Keeping price level stable
C. Creating employment opportunity
D. Creating tendency of savings

2. Which Bank does play the role for maintenance of monetary value?

A. Central Bank
B. Commercial Bank
C. Investment Bank
D. Exchange Bank

Read the following stem and answer the questions 3 & 4

Prottoy Bank, as the only bank in the country, provides various advice to Prottasha Bank and also plays a key role in the economic stability of the country.

3. Which financial institution is compatible with the activities of Prottoy Bank?

A. Central Bank
B. Industrial Bank
C. Grameen Bank
D. Investment Bank

4. Functions of Prottoy Bank-

i. can play a role in country's agricultural development.
ii. will get loan facility.
iii. will improve life style.

Which one of the following is correct?

A. i & ii
B. ii & iii
C. i & iii
D. i, ii & iii

Creative Questions

1. Mr. Karim is serving in 'B' bank, when he drew new notes for Eid festival all bank years old daughter asked him why the name of bank 'A' is written on his seven notes.

A. Which banks' functions are controlled by Central Bank?

B. What does a commercial bank deposit as 'Reserve' in the central bank? Explain.

C. Which type of bank is bank "A"? Explain.

D. What role will bank "A" play in liquidity crisis of bank "B"?

2. People of Ramgor are facing different types of problems as there is no commercial bank in that locality. Administration opened a branch of Bank "A" when the local people informed the local administration that there is no bank. The local people were benefitted. Later "B" bank opened another branch there. After a few days the central bank notify bank "B" to shutdown.

A. By which way does central bank resolve inter bank transactions of commercial banks?

B. Explain what central bank keeps stable?

C. Why does the central bank notify bank "B" to shutdown? Explain.

D. How can the central bank involve bank "A" to develop the area like Ramgor? Explain.

Short questions

1. What is statutory reserve? Explain.
2. "Central bank lending is the last resort" - explain.
3. Mention two relationships between the central bank and commercial banks.
4. Explain the reason for the origin of central banks.

The End

2026 Academic Year

Classes Nine and Ten : Finance and Banking

বুদ্ধিহীনের কাছ থেকে পরামর্শ না নেওয়াই ভালো।



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