

# **CHAPTER - I**

## **INTRODUCTION**

### **1.1 Background of the Study**

Nepal is a small landlocked secular country, situated in the lap of Himalayas; Nepal is a mountainous country and home place of natural beauty. It has remained an independent and peaceful country since time of immemorial with of artifacts. It is popular for its distinctive feature – a land of diversity. Located in between the latitude 26°22'to 30°27' north and longitude 80°4' east to 88°12' east and elevation ranges from 70 to 8848 meters boarding, between the two most populous countries of the world, India and china. India is in the east, south and west and china in the north of our country. The world, basically, divided into two broad categories; developed and underdeveloped countries. The people of the developed as well as developing countries want to minimize and finally to establish harmony between haves and have not. This gap can only be filled by revolution in various sectors in each country.

Nepal is a small underdeveloped country geographically divided into three geographical areas mountain, hill and Terai. Therefore there are at least three types of climates. Mountain, hill and Terai accommodating 35%, 42% and 23% of total land area based on area of districts. There are different types of flora and fauna and different kinds of crops are grown. The agriculture sector absorbs more than 80% of the total labour force of the country, per capita income of Nepal is U.S.\$742. Unbalanced distribution of income has made different classes of people, so in order to increase per capita income; one of the best ways is to encourage foreign investors. United Nations Development Program, in its report of the Human Development Index 2013, has reveled that 44 percent of the people in Nepal are still under the poverty line based on the multidimensional poverty measurement system. A lot of things are to be done for achievement of development goal. For a long

time, government has taking poverty eradication goal. Poverty eradication is a single objective of the ninth plan.

Poor nations are facing difficulties in capital formation because they have only small amount of household saving to be used for investment, which is very small for this purpose. Therefore, capital formation is a major problem for underdeveloped countries like Nepal. In context of capital formation, we must talk about banking industry. It has an important and vital role for capital formation and economic development of a country. Bank collects saving from its customer and it earns profit investing those saving. So, this business itself seems to be helpful on capital formation. Banking is the necessary for every kind of economy. Without banking industry, economy can't run and development becomes impossible. Commercial banks have been providing not only commercial services but providing social services. Bank is safety vault of people to save their valuable ornaments and jewelries. Banking industry influences all the economic activities of each and every country. Active banking industry can change the economic structure of the country.

In general terms, bank is a financial institution which plays a significant role in the development of a country. In the other words, the banks are sells and purchase the money. The banks are accepting the deposit with or without interest under current, saving and fixed account and provide loans taking securities, movable property. The collected deposit is then transferred to the other people in the form of credits, where the bank charges interest, the interest for the credit will be higher than the interest for the deposit. The difference between there is called the spread rate, which is the profit of the bank. In the modern banking system, commercial banks are providing various commercial services like: acceptance of deposit, granting loans, sales and purchase of securities, receipt of fund, issue of letter of credit, credit information etc.

The history of banking in Nepal may be described from the age of barter system. But the financial system is still in evolutionary stage in our country. Gold smiths, Merchants and Money lenders were the early bankers in

Nepal. 'Tejarath Addha' was the first institutional development of banking which was established during the period of Rana prime minister 'Ranodeep Singh' in 1938 B.S. another strong step of banking was the emergence of Nepal bank limited. Nepal bank limited came into existence as a public sector commercial bank with 49% ownership of public and 51% ownership of HMG/ Nepal in 1994 B.S. at that time, Nepalese economy was characterized by the prevalence of dual currency system. There were great fluctuations in the open market rate of exchange of the Nepalese rupees face to face the Indian currency which provided a great hindrance to the economic stability as well as development of the country. Thus, there was an immediate need of central bank. As a result, Nepal Rastrya bank was established as a central bank of the country in 2013 B.S. then in 2016 B.S. the government established Nepal industrial development corporation (NIDC). It worked as an industrial development bank with the package of both type of services such as financial and technical assistance to establish modern industries in private sector. Similarly, Rastriya Banijya Bank (RBB) was set up in 2022 BS. With the view of providing financial assistance for agriculture, agriculture development bank of Nepal (ADBN) was established in the government sector in 2024 BS. The security exchange center (SEC) was set up in 2032 B.S. In order to provide the liquidity to government securities. At the same time, employee's provident fund corporation, Nepal Insurance Corporation and other institutions were established. These institutions contributed positively to the generation of outputs, employment, revenue and infrastructure in Nepal. These also helped to enhance the private sector, but the growth rate of public sector was far faster than that of private sector.

In 1980 AD, government introduced "financial sector reforms" which facilitate the establishment of different private sector financial institutions in Nepal. As a result, different commercial banks, insurance companies, finance companies, development banks, cooperative societies and other financial institutions came into the scene of Nepalese economy. At present, 1 central bank, 32 commercial banks, 87 development banks, 76 finance companies, 21

rural development banks are working under the banking and financial institution ordinance. Reforms were introduced with the changes in commercial bank act 2031 B.S. and its amendment in 2041 BS. The entry barriers placed on commercial bank were eliminated. This change was introduced to allow both foreign banks and the private sector to operate in the banking sector. However, foreign participation in the financial sector is only allowed with the joint collaboration with domestic partners. The objection was to help transmit banking, managerial and technical knowledge in the country. The immediate impact of policy was the number of joint venture commercial banks and private sector commercial banks that came into operation.

Nepal Arab bank limited is the first private sector commercial bank in Nepal, which introduced computerized banking system and other modern technologies in this field. Nepal Arab bank limited established in 2041B.S. It was first joint venture commercial bank with Dubai bank limited. It was established in joint investments with Dubai bank limited UAE and Nepal investment partners were NIDC, Rastriya Bima Sasthan and Security Exchange Limited. Its 30% shares are issued to general public. This is now known as NABIL bank limited. Then whole lot of commercial banks was opened in Nepal. Currently, seventeen commercial banks are working in the country. Out of these, two banks are public sector commercial banks and fifteen are private sector (NRB, 2003). These banks are playing the vital role for development of the country.

Bank is an institution that exists legally as under the separate and distinct act. Now commercial banks being run by bank and financial institution ordinance 2060. This has replaced the previous commercial bank act 2031. According to the ordinance, bank and financial institution are divided into four groups. Commercial banks are placed in group "A" but not mentioned explicitly. Functions and objective of commercial banks are as follows:

- To accept the deposit with or without interest under current, saving and fixed account.

- To provide loans taking securities, movable property, company shares or debenture, bills of exchange and promissory notes or invest on them.
- To issue, accept, discount, buying or selling of bills of exchange and promissory notes and cheques etc.

## **1.2 Focus of the Study**

The study aims to analysis the capital structure of Nepalese commercial banks by using descriptive tools under descriptive and analytical research design. Thus, whole energy and effort concentrate on analysis of capital structure of selected commercial banks. More specially, the study focuses on the paid up capital and its trend, trend of total debt and equity capital, leverage position, debt servicing capacity and the trend of interest coverage ratio and finally capital adequacy of the Nabil bank during the period of 2007/08 to 2011/12.

## **1.3 Statement of the Problem**

Capital structure concept is not taken seriously by the Nepalese companies. Therefore optimal structure doesn't exist at all. Generally every company has its own policy in determining capital structure for operating business activities. Some of the business organization use only equity capital, some use only debt capital and some combine both equity and debt capital. Therefore determination of capital structure largely depends upon the company policy and cost of capital.

Unfortunately, there is no model for determining capital structure in the Nepalese business organization. In the initial period company want to use only equity capital and do not want to include debt capital due to the high interest charges.

Indisputably, balanced capital is one of the important factors of the successful company. But unfortunately, they do not pay attention for balanced capital structure. In that situation different question may arise as to why the companies are using existing capital structure ineffectively, whether the change

in capital structure can be effective, whether the cost of capital decline with leverage, whether the other factors except capital structure affect the cost of capital, how the leverage affect the cost of equity and debt.

To solve the problem, the management of the company should be aware of the importance of capital structure of the management. The purpose of the small study is to analyze, examine and make aware of the importance of the capital structure management for their firm.

#### **1.4 Objectives of the Study**

Any study and research work should have specific objective. Objective of the study make people know why the study is so important and is being held.

Main objective of this study is to analyze, evaluate and interpret their capital structure employed by the Nabil bank limited. The specific objectives of the study are pointed out as under.

1. To be familiar and analyze the composition of the capital of the Nabil bank limited of the mixture of the debt and equity.
2. To examine the existing financial position regarding capital structure.
3. To describe the relationship between deposit and capitalization of Nabil bank limited.
4. To provide the recommendation, suggestion for the development of an appropriate capital structure.
5. To show the overall trend analysis.

#### **1.5 Significance of the Study**

Research itself is very important because it aims to gain knowledge and to add the new literature in existing field. Thus, the research has its own importance. Mainly, the study is important for the researcher to fulfill the academic requirement of master degree. On the other hand, the study is important for commercial banks, researchers, scholars, investors, students,

government and many other parties. At last, it is expected that, the study will add a drop of literature in the field of commercial banks and their capital structure.

### **1.6 Limitation of the Study**

This study attempts to evaluate capital structure decision of Nepal's leading joint venture commercial bank. This study is carried out as an academic requirement for degree of master of business studies (MBS). So, the study may not be able to show the reliability and validity in every field. The following are the limitation of the study:

- 1) The whole study is based on secondary data such as financial statement, annual report & web sites of the company concerned. Accuracy, reliability and validity of the study depend upon the data provided by the concerned bank.
- 2) The study only covers the five fiscal years' (2007/08-2011/12) observations.
- 3) The study is to fulfill the requirement of master degree in business studies so the study can't cover all the dimension of the subject matter and the resource and the time period will also limit the study.

The main limitations are time constraints, financial problem, lack of research experience and lack of recent information.

### **1.7 Profile of the concerned Bank**

#### **Introduction to NABIL Bank Ltd.**

Nepal Arab bank limited, the first joint venture commercial bank in Nepal was established in 2041BS. As a joint venture with Dubai bank ltd. which introduced computerized banking system and other modern technologies in this field. It was the first bank of the Nepal to operate jointly with foreign investors. It was established in joint investments with Dubai bank limited, UAE. Nepali investment partners were NIDC, Rastriya Bima Sasthan and Security Exchange

limited. Its 30% shares are issued to general public. Nabil bank is rated as a successful commercial bank. It has helping business communities and the government in different ways since its establishment. Nepal Arab bank limited was called Nabil bank in its short form when it was a joint venture business organization. Now it is no more joint venture business with foreign partner because Dubai bank limited has already withdrawn its investment from this bank. Now the word Nabil is not the abbreviation of Nepal Arab bank limited but it has own meaning. Now the bank is known as Nabil bank limited.

After 29 years of operational experience, today Nabil bank is in unique position in the banking industry. The bank has a mission and drives to be the “Bank of 1<sup>st</sup> choice” of all the stakeholders; customers, shareholders, regulators, communities where bank work in and staff.

## **1.8 Research Methodology**

Research is common parlance refers to a research for knowledge. In other words research methodology describes the methods and process applied in the entire aspects of the study. Thus this chapter highlights the research methodology used in the study for analysis of financial performance of Nabil to draw some potential conclusion from this.

For the purpose achieving the objective, the following methodology has been proposed to follow:

### **1.8.1 Research design**

The method and definite technique which guides to study and give ways to perform research work is known as research design. First of all, the important information and data are collects, then selected. Then data is arranged in useful manner. After that, data are analyzed by using appropriate financial and statistical tools.

### **1.8.2 Sources of data**

This study mainly based on secondary data provided by Nabil bank limited. Secondary data have been collected through various books, published



annual / trading reports of NEPSE, Nepal Rastra Bank, TU library and previous study and reports as well as concerned websites.

### **1.8.3 Population and sample**

All the commercial banks that are operating in Nepal are considered as the population. It is not possible to study all the data related with all joint venture banks because of the limited time period. Thus to joint venture bank i.e. Nabil bank ltd. has been selected as sample for the present study.

### **1.8.4 Methods of data analysis**

Data collected from different sources are in raw form and in initial stage as judging independently does not help much. Thus these data converted by the help of various financial and statistical tools to achieve the objectives.

### **1.8.5 Methods of presentation**

The techniques of presentation used here are most of descriptive and analytical nature and the data have been presented basically in tabular form thereafter some of important tabulated information of the data has been presented by bar chart, line chart etc.

### **1.8.6 Organization of the study**

The study includes five chapters; those chapters are,

1. Introduction chapter
2. Review of literature
3. Research methodology
4. Presentation and analysis
5. Conclusion and recommendation

Introduction chapter includes background of the study, statement of the problem, and limitation of the study, scheme of the study and research methodology.

Review of literature includes meaning of capital structure, theory of capital structure, determinants of capital structure, definition of bank, function of commercial banks, development of the banking of the Nepal, role of Nabil bank in Nepalese economy and review of related thesis.

The third chapter deals with the research methodology it contains the research design, period covered population and sample, sources and design, types of data, data processing procedure and tools for analysis.

Presentation and analysis of data chapter includes analysis and presentation of different data. Mainly capital structure analysis includes different trend analysis and ratio analysis.

Conclusion, recommendation and suggestion includes conclusion of the study, recommendation and suggestion for the future package of plan of action.

# **CHAPTER - II**

## **REVIEW OF LITRATURE**

### **2.1 Introduction**

Conceptual foundation is a most important part of every study. Without clear concept on subject matter the study may not through right way. So, the review of literature is taken as an essential part, which works as a backbone of the study. It gives the more information and description of the relevant theoretical aspects. It tries to clear the conceptual thought and bank related terms.

### **2.2 Concept of the Commercial Bank**

In general, commercial banks are those financial institutions, which play the role of financial intermediary in collection and disbursement of funds from surplus unit to deficit unit. Commercial bank is established with a view to provide short term debt necessary for trade and commerce of the country along with other ordinary banking business such as collecting the surplus in the from of deposit, lending debts by discounting bills of exchange, accepting valuable goods in security acting as an Client etc. principally a commercial bank accepts deposits and provides loans primarily to business firm. On the other hand, the broad concept of commercial bank holds that the commercial bank is a banking institution other than central bank.

### **2.3 Definitions of the Commercial Bank**

It is very difficult to give a precise definition of a bank, because a modern bank performs number of functions. So, various writers have defined the bank in different ways. Some of the important and common definitions of a bank are as follows.

"A commercial bank is one which exchanges money, deposits money, accepts deposit, grants loans and performs commercial banking functions and

which is not a bank meant for cooperative, agricultural, industry or for specific propose." *Commercial bank act, 1974, Nepal*

"A bank is a business organization that receives and holds deposits of funds from others, makes loans or extends credit and transfers funds by written order of depositors." *The encyclopedia American, 1984, vol.4, Grolier incorporated*

"The Indian bank act defines bank as the accepting for the propose of lending or investment of deposit of money from public repayable on demand or otherwise and withdrawal by cheque, drafts order or otherwise or remitted upon draft, cheque or whole money is advanced or loaned on stocks, bonds, bullions and B/E and P/N are received for discount and sale." *Findlay Shiraz, principle of economic, p.209*

"Banks are precursor and creators of expansion of economic activity and no merely money lenders, but also influential adviser and efficient associate and collaborate with industrialists in the collaboration and adoption of problem nationalization with the conquest of national markets and invasion of foreign market." *R. Ozingar, Bank of the world, McMillan preface, 1967*

"Ordinary banking business consists of changing cash for bank deposit and bank deposit for cash. Transforming bank deposits from one person or corporation (one depositor's) to another, giving bank deposits it exchange for bills of exchange government bonds security or unsecured promises of businessmen to repay." *R.S. Syers, modern banking, oxford university press, p.22*

A commercial bank is a business profit seeking organization. So the main objective of the organization is profit maximization. Bank earns profit from the investment of the available resources. The existence of a commercial bank depends upon the belief of the clients. People believe that bank deposit is as liquid as the cash itself. People believe that bank is always able to meet their obligation. So, the bank must gain the confidence and trust of the people so as to create credits.

It is notable that the bankers are to be considered not only as dealers in money but also the leaders in development. It is not just the store house of the country's wealth but a reservoir.

From the above definition we can say that, commercial banking is the industrialized organization established for the purpose of gearing the economy with accepting the deposit from the public and disbursing the accumulated resources to the needed sectors.

"A bank business is basically to buying and selling credit, credit instrument are its stock in trade. Also on the basis of its own credit a bank creates money transferred by credit instrument." *E.S Klise, Money and Banking, South Western Publication co. 1972, p.108*

"Ordinary banking business consists of changing cash for bank deposit and bank deposit for cash. Transforming bank deposits from one person or corporation (one depositor's) to another, giving bank deposit in exchange for bills of exchange government bonds security or unsecured promises of businessmen to repay." *R.S. Syers, Modern Banking, Oxford University Press, P. 22*

#### **2.4 Functions of the Commercial Bank**

The words 'bank' always denotes commercial bank only. It is a profit seeking financial institution. Commercial bank performs different functions such as core function and support function to the general public as well as business world. Core function includes two types of function – fund based and non fund based functions. Similarly, support functions are those functions, which are carried out to fulfill the core functions. American institute of banking (1972) has fixed out four major functions of commercial bank, receiving payments, handling payments, Making loans & Investment and creating money by extension of credit. Upadhy and Tiwari (2037) have argued that there are three major functions of commercial bank these three functions are: primary function (accept deposits, provide loans & credit) , agency functions (sales and purchase of securities, transfer of funds etc.) general functions(safe custody of

valuable assets, dealing with foreign exchange etc.). It receives and holds demand deposits, acquires earning through the process of lending and investing. So, the main function of commercial bank is to create additional deposits and credits. Except that there are several functions of commercial bank. The main functions of the commercial banks are as follows;

**1. Acceptance of deposit:**

- Current account
- Saving account
- Fixed deposit account

**2. Granting loans:**

- Cash credit
- Overdraft
- loans and advanced
- discounting of bill of exchange
- Money to call and short notes

**3. Agency function**

- Sales and purchase of securities
- Collection of negotiable instruments
- Payment
- Receipt of payment
- Transfer of funds
- function of attorney

**4. General utility functions:**

- issue of letter of credit and other credit instruments
- dealings in foreign exchange

- Safe custody of precious materials
- underwriting function
- Credit information
- Compilation of trade information and statistics

## **5. Credit creation**

Credit creation is most significant function of commercial banks. While approving a loan to a customer, they do not provide cash to the borrower. Instead, they open a deposit account from which the borrower can withdraw. In other words, while approving a loan, they automatically create deposits, known as a credit creation from commercial banks.

### **2.5 Development of Banking in Nepal**

The word 'bank' may be new but the banking business is very old. Since Lichchhavi era, we have record to be in existence of such business. There was a cast "Tankadhari" in Malla era whose sole job was to collect money and lend them to people.

Shankhadhara Sakhkwa related myth also proves that this business is too old. He made all payments of loan holders in Kantipur city.

The history of banking in Nepal may be described from the age of barter system. But the financial system is still in evolutionary stage in our country. Gold smiths, Merchants and money Lenders were the early bankers in Nepal.

In Nepal, "Tejarath Adda" was the first institutional development of banking. It was established in 1938 B.S by the Prime Minister Ranodeep Shingh. Its main function was to grant loan to government employees at the 5% interest rate. The loan used to be given from the government treasury. It was beneficial for the government employees only not for general public.

Later in 1994 B.S, in initiation of Sardar Gunjaman Shingh and Singha Sumser Rana Nepal bank limited was established. It was a developed and advanced form of Tejarath Adda. It was semi government organization. It became a unanimous leader in banking industry for about two decades. It played a vital role in expanding banking habit among people. After issuance of Nepali currency notes in 2022 B.S, it played an important role of making people habit transact in Nepali notes.

Nepal Rastra bank was established in 2013 B.S feeling that a control bank is necessary for governing purpose of commercial and other types of banks. It was established under Nepal Rastra Bank Act-2012. After establishment of this bank. Government became able to make people use Nepali currency nationwide instead of Indian currency. It could the use of India currency in tarai region well.

Industry and commerce sector is backbone of our country. This sector needs long term loans. Nepal Industrial Development Corporation (NIDC), a bank was established to give facilities for industries in 2016 B.S. it provides long term and sometimes mid term loans for industrial sector.

Rastriya Banijya bank was established in 2022 B.S. Nepal bank limited was not being able to provide sufficient service to people due to being alone in this sector. So, the importance of another bank was felt and according Rastriya Banijya Bank Act-2012, it was established. Agriculture development bank, Nepal was established in 2024 B.S. it was a development like NIDC but its sector was agriculture.

Nepali customers were enjoying the facility of only two commercial banks. Government adopted liberal economic policy and allowed to establish banks from private sector and jointly with foreign or local partner. In 2041 B.S. Nepal Arab bank limited was established. It was a milestone in the banking history. It was a first joint venture bank in Nepal. The foreign partner of this bank was Dubai bank limited (UAE) and Nepali partner were Rastriya Bema Sasthan and Security Exchange Limited. It is a public institution because bank



must be public enterprise in Nepal. After one decade Dubai bank limited withdrew its shares and now its all shareholders are Nepali persons and institutions.

After establishment of Nepal Arab bank limited. Nepal Indosuez bank limited and Nepal Grinlays bank limited were established. These banks are also joint venture banks. Now there are almost dozen of banks in Nepal, fifty more finance companies and hundreds of cooperatives.

Nepali banking sector has been very competitive now. Modern banking technologies have been introduced. They have a great role of setting up banking culture among Nepali people.

Government has replaced the commercial bank act 2031 by financial institution ordinance-2060. In these seventy one years of banking history, it has crossed various economic conditions and situation. Now this industry has been backbone of the country. Without banking industry Nepalese economy cannot be imagined now

## **2.6 Role of NABIL Bank in Nepalese Economy**

Nabil bank limited, and then Nepal Arab bank limited is the first joint venture bank in Nepal with foreign investment. It was established in that time when government had just initiated liberal economic policy which promoted private sector, invited the foreign investment and privatized the public enterprises felt its success in its new policy.

This bank has become very popular within very short time of period. It provides modern services to customer. It could provide good service without any delay. Its service is an international standard. General public knew what banking can do. Their expectation from this sector increased.

After being this bank successful other two old commercial banks tried to improve their organization and operation. It was a good expose effect of Nepal Arab bank limited. Until then, two old banks used to flow the loans heavily by the government orders in the name of welfare programming, which is exactly

opposite to the banking business and ethics. Such types of loan flowing may bankrupt the bank. Old bank learned then full professional business practice of these new banks. So, they started to think seriously to control ordered and forced loan flowing.

When Nabil bank became successful other internationally famous banks imitated its path. So many joint venture banks established within a short period of time. Within ten years, more than a dozen banks established. This bank is using highly qualified academic human resources, which make it capable organization. A few staffs but energetic staffs can operate the organization well. In government owned banks large numbers of staffs can appointed and they have low qualification. This will decrease the whole quality of bank. This style of Nabil bank to run efficiently was first for nation helped other banks.

The competition also increased, amount of saving and investment along with banking habit of people. Nabil bank has a leading role in Nepali banking industry. Due to its better performance its future seems to be brighter.

After 29 years of successful operational experience, today the Nabil bank is in unique position. The bank has a mission and drives to be the “Bank of 1<sup>st</sup> choice” of all stakeholders. At a time when macro economy factors are unfavorable, the bank managed to maintain satisfying result. As a result net profit after tax, return on equity, and return on assets are growing up. All these have reflected in the share price which climbing up. Another area where bank have done well is non performing loan management.

## **2.7 Meaning of the Capital Structure**

Capital structure is used to represent the proportionate relationship between debt and equity. Equity includes paid up share capital, share premium and reserve and surplus (retained earning) and long term debt, debentures. *I.M. pandey, financial management, vikash publishing house, 1999*

“Capital structure is the mix of long term debt and equity maintained by the firm.” *Lawrence J. Gitman, principles of managerial finance, Harper Collins publishers, 5th edition, 1988, p22*

Capital structure is the composition of debt and equity securities that comprise a firm's financing of its assets. Both debt and equity securities are used in most large corporations. The choice of the amount of debt and equity is made after a comparison of certain characteristics of each kind of securities of internal factors related to the firm's operations and of external factor that can affect the firm. *John j. Hampton, financial decision making, concept, problem and cases, practice hall of India.4th edition, 1989.*

The capital structure is made up of debt and equity securities, which comprise a firm's finance of its assets. It is the permanent financing of firm, represented by long term debt, plus preferred stock, plus net worth, the determination of the degree of liquidity of a firm is not simple task. In the long term run, liquidity may depend on the profitability of a firm but whether it survives to achieve long term debt and total stockholders investment. It may be defined as one including both short term and long term fund. *P.V kulkarni, Himalayan publishing house, 2nd edition*

Capital structure concept hold major place in the field of financial management. Capital structure is the composition of various types of long term sources of funds, namely debt, preferred stocks, debentures and equity capital including retained earnings (reserves and surplus). Some times it is also referred to as financial structure, if there are no short term liabilities. Khan and Jain (1992) stressed that the capital structure or financial plan or financial structure refers to the composition of long term sources of funds. At the same time, Weston and Copeland (1992) argue that the capital structure or the capitalization of the firm is the permanent financing represented by long term debt, preferred stock and shareholder's equity. They further added that a firm's capital structure is only part of its financial structure.

Decision regarding the choice of capital components is known as the capital structure decision. The capital structure decision is a significant function as well as managerial decision. It affects the shareholder's return and risk. Consequently, the market value of the share may be influenced by the capital structure decision. Every type of corporations should have to plan their capital structure initially at the time of promotion. Subsequently, whenever funds are needed to finance investments, a capital structure decision is involved.

I.M Pandey (1999) has identified many more factors, which plays the vital role in the process of capital structure decision. Such as, stake holder's attitude, nature of required funds, risks and returns associated with investment, management's desire, existing capital structure, dividend policy, shareholder's expectation, government rules and regulations, access to capital market etc. Pandey adds that, the dividend decision of a firm works as a bearing on capital structure and capital structure decision.

The use of debt capital affects the return and risk of stakeholders and the return on equity as well as risk will increase. A proper balance will have to be struck between risk and return is maximized with minimum risk. The market value per share will be maximized and firm's capital structure would be optimum. Once the financial manager is able to determine the best combination of debt and equity, he must raise the appropriate amount through best available sources.

A capital structure with a reasonable proportion of debt and equity is called the optimum capital structure. *M.Y. Khan, P.K Jain, financial management Tata McGraw Hill Publishing Co., 1997, p.8*

So the financial manager is concerned with determining the best financial mix or capital structure, the optimal financing mix would exits in which market price per share could be maximized. *I.M. Pandey, financial management, Vikash publishing house, 1988, p.203*

Therefore, capital structure with a reasonable proportion of debt and equity is called the optimal capital financing mix of optimal capital structure. Since a proper balance between risk and return to stockholder is necessary, the financing of capital structure decision is significant managerial decision as it influences the shareholder's return and risk.

## **2.8 Theories of Capital Structure**

The two principal sources of long term financing are equity capital and debt capital. The composition of these two long term financing is known as capital structure. Capital structure is the determinant of overall cost and it affects the value of the firm by affecting either in expected earnings or in the cost of capital or in both. On the other hand, the use of debt in capital structure affects value of the firm through the cost of capital and optimum capital structure exists in practice. The optimum capital structure is obtained with the appropriate mix of capital components, which leads maximum value and minimum overall cost of capital in the firm. There is a long debate in this regard (capital structure, leverage and optimum capital structure) and running as a matter of research. As a result, various research works and empirical studies and carried out and different theories have been developed in this matter.

There are many theories proposed by scholars regarding the capital structure. The major four theories are:

- Net income approach
- Net operating income approach
- Traditional approach, and
- The Modigliani – miller approach

In order to have better understanding of capital structure theory, assumption and definitions are given below:

**Assumptions:**

- Two types of capital are employed, long term debt and shareholders' equity.
- The firm's total assets are fixed, but its capital structure can be changed immediately by selling debts to repurchase common stocks or vice versa.
- The net operating income (NOI or EBIT) is not expected to grow or decline over time.
- All earning of the firm are paid out in the form of cash dividends .i.e. the dividend payout ratio is 100 percent.
- There is no corporate income tax.
- The firm is expected to continue indefinitely.
- perpetual life of the firm

In addition to above assumption, the following symbols are employed.

S = total market value of equity

D = total market value of debt

V = total market value of firm ( $V=S+D$ )

NOI = expected net operating income or earning before interest and tax (EBIT)

I = interest charge (i.e.  $K_e/D$ )

NI = net income available to shareholders (EBIT-I), when corporate tax does not exist

Given this assumption, we shall also make use of some basic definitions.

1. Cost of debt ( $k_d$ ) =  $I/D$

So, value of debt (D) =  $I/k_d$

2. Cost of equity ( $k_e$ ) =  $\text{Div}_1/P_0 + g$

$$= \text{Div}_1/P_0 + 0$$

$$= \text{EPS}_1/P_0 \text{ (when Div = EPS, then } g = 0)$$

So,  $K_s = (\text{NOI} - I)/S$

Where,

$\text{Div}_1$  = Dividend per share

$\text{EPS}$  = earning per share of next year

$P_0$  = current market price per share

$G$  = growth rate

3. Overall cost of capital or weighted average cost of capital ( $K_o$ )

$$K_o = K_e (S/V) + K_d (D/V)$$

$$= X/V = (\text{NOI})/V$$

4. Total value of the firm ( $V$ ) = total market value of common stock + total market value of the debt.

$$V = S + D = X/K_o = (\text{NOI}) / K_o$$

### **The Net Income Approach (NI Approach)**

The net income approach is suggested by Durand d. in 1959. It is a relevancy theory of capital structure, which assumes that the capital structure decision is relevant for the valuation of the firm. Net income approach states that the value and the overall cost of capital are heavily influenced by the capital structure decision. Leverage can maximize the value of a firm and minimize the overall cost of capital. By using the debt value can be maximized and overall cost of capital.

The essence of the net income approach is that the firm can increase its value or lower the overall cost of capital by increase the proportion debt in the capital structure. The crucial assumptions of this approach are:

The use of debt does not change the risk perception of investors; as a result, the equity capitalization rate ( $K_e$ ), and the debt capitalization rate ( $K_d$ ), remain constant with changes in leverage.

The debt capitalization rate is less than the equity capitalization rate ( $K_d < K_e$ ) if the corporate income tax does not exist. The net income approach assumes that the capitalization rate of debt is less than the equity capitalization rate ( $K_d < K_e$ ). The overall cost of capital ( $K_o$ ) is assumed to decrease with the increasing level of leverage.

As per assumptions of the net income approach,  $K_e$  and  $K_d$  remain constant and  $K_d$  is less than  $K_e$ . Therefore, the overall cost of capital ( $K_o$ ) will decrease with the decreasing debt to total assets ratio or debt to equity ratio. The overall cost of capital is measured by dividing the net operating income by the value of the firm.

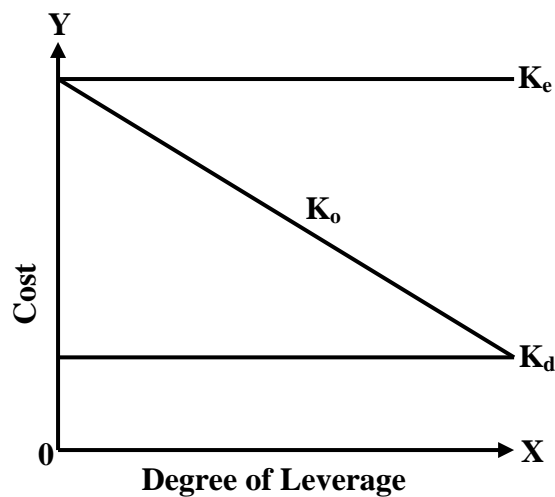


Figure 2.1

### The Net Operating Income Approach

The net operating income theory of capital structure was also suggested by Durand, d. in the same time. According to the net operating income approach, the value of the firm is independent of the capital structure decision. Therefore, the theory is called the irrelevancy theory of capital structure. The intrinsic nature of this approach is that the leverage or capital structure decision of the firm is irrelevant. Any change in leverage will not lead to any change in



the total value of the firm and the market price of the share, as the overall cost of capital is independent of the degree of leverage.

The market value of the firm (v) is determined by  $V = (D + S)$

$$= \text{NOI} / K_o$$

$$= X / K_o$$

Where,

$K_o$  is overall cost of capitalization rate and it depends on the business risk of the firm. It is independent of financial mix. If NOI and  $K_o$  are independent of financial mix, V will be constant and independent of capital structure change the assumptions of NOI approach are:

The market capitalizes the value of the firm as a whole. Thus the split between debt equity is not important.

The market uses overall capitalization rate,  $K_o$  to capitalize risk if the business risk is assumed to remain unchanged,  $K_o$  is constant.

The uses of less costly debt fund increases the risk of shareholders. This causes the equity capitalization rate to increase. Thus the advantage of debt is offset exactly. By the increase in the equity capitalization rate,  $K_e$ .

The debt capitalization rate,  $K_d$  is constant.

The corporate income tax does not exist.

As stated above, under NOI approach, the total value of the firm (V) =  $\text{NOI} / K_o = \text{EBIT} / K_o$

Where,

$$V = S + D$$

$$\text{So, } S = V - D$$

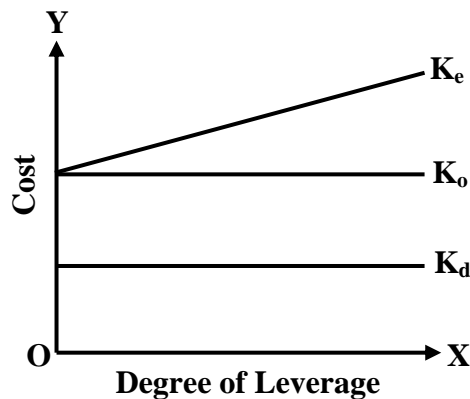
$$\text{The cost of equity (Ke) = } [\text{NOI} - I] / [V - D] = NI / S$$

Alternatively,

$$K_e = K_o + [K_o - K_d] D/S$$

Where,

If  $K_o$  and  $K_d$  were constant,  $k_e$  would increase, linearly with debt equity ratio,  $D/S$



**Figure 2.2**

In above figure 2.2 degree of leverage is plotted along the horizontal axis and cost of capital figure on the vertical axis. It shows that  $k_o$  and  $k_d$  are constant and  $k_e$  increase with leverage continuously. As the average cost of capital is constant, this approach implies that there is not any unique optimal capital structure.

### **Traditional Approach**

Net income approach and net operating approach represent two extremes as regards to the theoretical relationship between financing decision as determined by the capital structure, the overall cost of capital and total market value of the firm. The traditional approach is midway between the net income approach and net operating income approach. Thus, it is also known as the intermediate approach of capital structure. The traditional approach assumes that the value of the firm can be maximized by appropriate mix of debt and optimum capital structure can be obtained with judicious mix of debt and equity.

The rationale behind this view is that debt is a relatively cheaper source of funds as compared to ordinary shares. When a change in the leverage uses more debt in place of equity, a relatively cheap source of funds replaces a source of funds that involves a relatively higher cost. This obviously causes a decline in the overall cost of capital. If the debt-equity ratio is raised further, the firm would become financially more risky to the investor who would penalize the firm by demanding a higher equity capitalization rate. *Khan and Jain, financial management, Vikash Publishing House, 8th edition, 1999*

Traditional view with respect to optimal capital structure can be appreciated by categorizing the market reaction to leverage in three stages.

**Stages one: (increasing value)**

In the first, it is assumed that the cost of equity ( $K_e$ ) remains constant or rises slightly with debt. But when it increases, it does not increase fast enough to offset the advantage of low-cost debt. During this stage, the cost of debt ( $K_d$ ) remains constant or rises negligibly, since the market views the use of debt as a reasonable policy. As a result, the value of the firm increases or the weighted / overall cost of capital ( $K_o$ ) falls with increasing leverage.

**Stage two : (optimum values)**

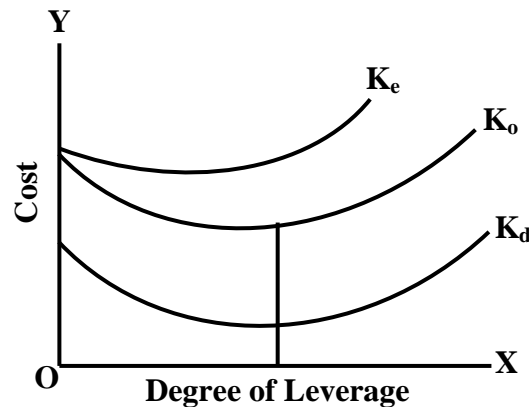
Once the firm has reached a certain degree of leverage, increases in leverage have a negligible effect on the value, or the cost of capital of the firm. This is so because the increase in cost of equity due to the added financial risk offsets the advantages of low cost of debt. Within that range or at the specific point, the cost of capital will be minimum. As a result, the value of the firm will be maximum which is optimum value and the leverage ratio is optimum leverage for a firm.

**Stage three : (decline value)**

Beyond the acceptable limit of leverage, the value of the firm decreases with leverage or the cost of capital increases with leverage. This happens

because investors perceive a high degree of financial risk and demand a higher equity capitalization rate, which offsets the advantage of low cost of debt.

The mentioned above can be depicted in the following picture.



**Figure 2.3**

### **Modigliani – Miller (M – M Approach)**

The Modigliani – miller theory of capital structure is suggested by Modigliani F. and M.H. Miller in 1958 A.D. the Modigliani – Miller approach relating to the relationship between the capital structure, cost of capital and valuation is similar to the net operating income approach, which assumes that the capital structure or leverage decision of the firm is irrelevant. In the same way, Modigliani – miller approach assumes that the weighted average cost or overall cost of capital does not change in the proportion of debt to equity capital in capital structure. The net operating income approach does not provide the operational justification for the irrelevance of capital structure decision. But M-M approach provides analytical sound and logically consistent behavioral justification about the capital structure and valuation. The M-M proposition supports the net operating approach or irrelevancy theory of capital structure. It provides behavioral justification for constant overall cost of capital and therefore total value of the firm, which is the significance of M-M approach.

## Assumptions

The MM hypothesis can be best explained in terms of their proposition (i) and (ii) should. However, be noticed that their proposition are based on certain assumptions. The assumptions as described below, particularly relate to the behavior of investors and capital market, the action of the firm and the tax environment.

1. Perfect capital markets: securities (share and debt instrument) are traded in the perfect capital market situation. This specifically means that,
  - i. Investors are free to buy or sell securities
  - ii. They can borrow without restriction at the same term as the firm do.
  - iii. They behave rationally, it is also implied that the transaction cost, i.e. the cost buying and selling securities do not exist.
2. Homogenous risk classes: Firms can be grouped into homogenous risk classes. Firm would be considered to belong to a homogenous risk class if their expected earning has identical risk characteristics.
3. Risk: the risk of investors is defined in terms of the variability of the net operating income (NOI). The risk of investors depends on both the random fluctuations of the expected NOI and the possibility that the actual value of the variable may turn out to be different than their best estimate
4. No taxes: the MM approach assumes that no corporate income tax exists.
5. Fully pay out: firms distributed as net earnings to the shareholders, which means a 100% pay out.

### Proposition - 1

The value of any firm is established by capitalizing its expected net operating income (NOI or EBIT) at a constant rate (i.e. overall cost of capital) which is appropriate for the firm's risk class.

Value of the unlevered firm ( $V_u$ ) =  $B + S$

Unlevered = no debt in its capital structure

Levered = debt + equity in capital structure

$$V = B + S$$

$$V = 0 + S$$

$$V = S$$

$$V = \frac{\text{net income available to the common stock holder}}{K_e}$$

$$V_u = EAC/K_e$$

### **Proposition – 2**

MM's proposition – 2 which is defines the cost of equity, follows from their proposition 1. The cost of equity formula can be derived from MM's definition of the average cost of capital. The expected yield or equity or the cost of equity is defied as follows:

Value of levered firm ( $V_L$ )

- i. with corporate tax only

$$V_L = V_u + Bt$$

Where,

$V_L$  = value of the levered firm

$V_u$  = value of the unleveled firm

$B$  = market value of the firm

$t$  = corporate tax

$Bt$  = present value of debt tax shield

- ii. With personal tax as well as corporate tax exist

$$V_L = V_u + B \left[ \frac{1 - (1 - T_c)(1 - T_{ps})}{1 - T_{pd}} \right]$$

$T_c$  = corporate tax rate

$T_{ps}$  = personal tax rate on stock income

$T_{pd}$  = personal tax rate on debt income

iii. if the agency cost & bankruptcy cost exist

$$V_L = V_U + B_t - \text{PV of bankruptcy and agency cost}$$

### **Arbitrage process**

Modigliani and Miller suggested an arbitrage process to prove their point. Arbitrage is the act of buying an asset or security in one market and selling simultaneously in another. This involves buying in the market in the low price. This restores equilibrium in market which is temporarily out of equilibrium. It implies that a security cannot sell at different prices. The total value of homogeneous firms that differ only in respect of leverage cannot be different because of the operation of the arbitrage. The essence of arbitrage process is that the investors are able to substitute personal or homemade leverage as against the corporate leverage. The behavior of the investors will have the effect of:

1. Lowering the price of shares of the firm whose shares are being sold.
2. Increasing the share price of the firm whose shares are being purchased.

This arbitrage process will continue the value of the two firms become equal.

## **2.9 Determination of the Capital Structure**

### **A. Earning Per Share**

The use of fixed cost sources capital to finance, such as debt and preference share capital to the finance, the assets of the company is known as financial leverage of trading of equity. *I.M. Pandey, financial management, Vikash publishing house, p. 260*

The leverage effect of EPS is more important consideration in any capital structure planning of the firm. Leverage is to increase of shareholder equity. EPS calculated as follows:

$$\text{EPS} = \frac{\text{Net profit after taxes \& preference dividend}}{\text{Number of common shares outstanding}}$$

Earning per share is one of the most used measures of firm's performance. It has to be the positive and negative considerations. For example, when a firm has to maximize EPS, the plant will choose the higher level of debt. In most cases, EPS criterion will favor debt. It may be that if the firm's cost after tax borrowing is less then its return of EPS ratio, then with the content EBIT, EPS will always increases with an increased leverage. On the other hand, after tax borrowing is greater than earning price ratio.

## **B. Cost of Capital**

The cost of source of finance is the minimum return expected by its suppliers. The expected return depends on the degree of risk assumed by investors. A high degree of risk is assumed by share holders than debt holders.

Therefore, debt is a cheaper source of funds then equity. This is generally the case even when taxes are not considered. If the tax deductibility of interest charges further reduces the cost of debt. Similarly, preference share capital is also cheaper than equity capital but not cheap as debt. Therefore using a specific cost of capital criteria for financing decision, a firm would always like to employ debt because it is a cheaper source of funds. The specific cost of capital criterion does not consider the entire issue. It ignores risk and the impact of financing decision. The overall cost of capital should be evaluated and the criterion should be minimized the overall cost of capital or to maximize the value of firm.

It should however, be realized that company can not continuously minimize its overall cost of capital by employing debt. A point or range is reached beyond which debt becomes more expensive because of increased risk



of excessive debt to creditors as well as to shareholders. When the degree of leverage increases, the risk of the creditors increase and they demand of higher interest rate and don't grant loan to the company at all once its debt has reached a particular level. Further more, the excessive amount of debt makes the shareholders position very risky. This has the effect of increasing the cost of equity.

### **C. Cash Flow Ability**

Conservation is a major feature of sound capital structure. It doesn't mean employing no debt or small amount of debt. It is related to the fixed charges created by the use of debt or preference capital in the capital structure and the firms ability to generate cash to meet these charges.

The fixed charges of a company include payment of interest, preference dividends and principal. Thus the fixed charges depend on both the amount of securities and the terms of debt or preference capital with short term maturity. Whenever a company thinks of raising additional debt, it should analyze its expected future cash flows to meet the fixed charges.

If a company is not able to generate enough cash to meet its fixed obligation, it may have to face financial insolvency. The firms expecting large and stable cash employ a large amount of debt in their capital structure, it is quite risky to employ charged sources of finance by those firms whose cash flows are not stable.

### **D. Control**

Control is another main determination of the capital structure for designing capital structure. The control factor is important in closely held companies then in widely held companies.

Since debt having voting rights, a company should use debt to avoid the loss of control. However, when a company uses large amount of debt, lot of restrictions are put by the debt holders on company to protect their interest. These restrictions control the freedom of the management to run the business.

A very excessive amount of debt can also cause bankruptcy which means a complete loss of control.

### **E. Flexibility**

It is another important consideration in setting up the capital structure. It means the firm's ability to adopt its capital structure to the needs of changing conditions. The capital structure of a firm is feasible if it has no difficulty in changing its capitalization or source of funds. The company should be able to raise funds, without undue delay and cost whenever needed to finance the profitable investment. The company should also be in position to redeem its preference capital or debt whenever warranted by the future conditions. The financial plan of the company should be flexible enough to change the composition of the capital structure.

The degree of flexibility in the capital structure depends on debt capacity, redemption terms and extension of fixed charges.

### **F. Flotation Cost**

Flotation cost is not a major influence on the capital structure of a company. The costs are incurred only when the new issue of shares which has certain cost for the underwriting commission or brokerage fees for the raised funds. Generally, cost of flotation of a debt is less than cost of flotation of equity. Sometime, in the case of small firms, flotation costs are not a significant consideration.

Flotation as a percentage of funds raised will decline. Therefore it can be an important consideration in deciding the size of a security issue. The companies will in terms of flotation cost if it raised funds through large issue can curtail company's financial flexibility.

### **G. Market Ability**

Marketability means the readiness of investors to purchase a particular type of security in a given period of time.

It is an important consideration for the time of security issue. General market condition plays a vital role for any type of share like debt, equity etc. because capital markets aren't constant at all. During buoyancy, shares are depended more while in depression debts are depended on.

#### **H. Size of the Company**

It greatly influences for the availability of funds from difference sources. It will be available, interest rate may be high. These types of capital structure are very inflexible and cannot run freely. On the other hand large company has a greater degree of flexibility in designing its required capital structure. The large company is easy to make available long term loan and for easy sell of common shares, debenture etc. therefore, size of the company is an important consideration in making the appropriate capital structure which leads the long term service of company.

#### **I. Legal Requirements**

The government has also issued certain guideline for the issue of shares and debentures. The legal restrictions are very significant as they lay down a framework within which capital structure decision has to be made.

#### **J. Interest Rate**

At certain point of time, when the general level of interest rates is low, the use of debt financing might be more attractive; when interest rates are high, the sale of stock may become more appealing.

### **2.10 Research Review**

#### **2.10. (a) Review of Articles**

The capital structure theory has taken the subject of controversy ever since the publication of Modigliani and miller's classic paper in 1958. While the traditional theory of finance claims that the cost of capital is a function of capital structure,

The Modigliani and Miller version of the theorem asserts that the cost of capital and the value of independent from the firm's capital structure. Both views are found logically consistent and have been supported by empirical observations. Many empirical studies exist supporting or refuting the M- M and the traditional view but the issue still remains unsettled. Although, different research works are carried out by different scholars within the various geographical region. Those studies and issues are reviewed in this section, which are related with capital structure and/ or the area of study.

Shrestha (1993) conducted a study on capital structure in public companies. She used data for 19 companies and the study covered different sectors manufacturing, finance, utility service and other area. She found that most of the companies have relatively higher debt capital then equity capital. Consequently, most of them are operating at losses, to the extent that interest payment on loan has been serious issue in these organizations. Due to the higher amount of debt in capital structure all the enterprises are facing the problem properly servicing the debt. In this way, she has suggested that the government have to consider in public enterprises by evaluating the relationship among the variables that are important in designing capital structure as well as the use of debt and its impact on overall earnings. Nepalese public enterprises are absorbing the huge amount of government funds. So, it is necessary to develop a suitable capital structure guideline for these enterprises from the side of government. Because the funds used in public enterprises is not a cost less fund. To make more realistic capital structure, it is needed to analyze the cost and risk return trade off. At last she concludes that most of the public enterprises have no transparent capital structure and ad hoc capital structure is determined without any realistic parameter. Thus, policy makers should have to be careful in developing capital structure guideline for public enterprises and the companies / organizations also to be aware of financial accountability.

Booth et al. (2001) have conducted a research work on capital structure in developing countries. The purpose of study was to analyze the capital structure choices made by companies from developing countries having different institutional structure and economic structures. The study was attempted to search the answer of three different questions. Data and information were collected from the international finance corporation. In addition with this source, other related data and information were collected from 10 different countries. Such as India, Pakistan, Thailand, Malaysia, Turkey, Zimbabwe, Mexico, Brazil, Jordan and Korea. Different common financial and mathematical tools were used to analyze the gathered data. In this study, a new firm level database was used to examine the financial structure of firm in a sample of 10 developing countries.

They found that the variables that are relevant for explaining capital structure in the United States and European countries are also relevant in developing countries. Although, there are the financial differences in institutional factors is essential to predict the financial structure and capital structure of a firm then the knowledge of its nationality. Furthermore, they found that the firms are adopting “pecking – order hypothesis” because of the higher costs involving in external financing in these countries. Finally they conclude that the debt ratios in developing countries seem to be affected in the same way and by the same types of variables that are significant in developed countries. However, there are systematic differences in the way these ratios are affected by country factors, such as GDP growth rates, inflation rates and the development of capital markets.

#### **(b) Review of Dissertations**

The study is in the topic of capital structure of Nepal bank Ltd by Shanti Raj Prasai (1999), the basic objective of the study is to analyze the interrelationship and trends among some of the components parts of capital and assets structure. To analyze facts in this study, he has used some of the statistical tools, such as ratio, percentage, index, average and coefficient of

correlation. From the study it is known that the bank is the composition of loan and advances, cash investment and other assets. Between these all components loan and advance are the major portions. During the study, total assets and capital are in increasing trend. But increasing rate of components is different. So the interrelationship of the components is fluctuating. The average growth rate of total deposits and other liabilities is higher than the average growth rate of net profit, and higher than the growth rate of total expenses. The total income and total expenses are not under control to the bank. And the net profit is only 40.64% of the total income. She has concluded that the bank showed total income as well as expenditure and suggested that the bank must control total deposit and the bank must also control investment. The bank needs to reduce its expenses and control fluctuation in the earning per share to improve its market price per share.

A comparative study between Nepal Indoswdz bank and Nepal Grindlays bank limited is done by Kamal Raj Pathak (1999). The capital structure of the both bank are highly levered, so it is difficult them to pay interest and principal that may ultimately lead them to liquidity or bankruptcy. There is no significant relationship between debt and equity ratio in terms of fixed deposits to net worth and overall capitalization rates of the banks. The ROE fluctuation was influenced by the dividend payout ratio and interest margin in Nepal Investment Bank ltd. both banks vary in the case of total assets, number of bank branches and volume of transactions. Both the banks are efficient and well established and doing well. He has suggested that Nepal Investment Bank ltd. should expand assets and branches, which may ultimately affect the bank's performance and increase the profitability more than ever.

Kamal Bahadur Rajlawat (1999) conducted a research work on capital structure of Necon Air limited. The general objective of the study was to analyze the capital structure of Necon air ltd. findings of the study was that the company is running with the higher proportion of debt capital. Due to the higher proportion of debt there is a burden of fixed charges in the company. As

a result market price per share as well as net worth is in declining trend. So, the company should think seriously about the higher proportion of debt and adopt the recovery strategy in order to improve the overall structure of the company.

Another study is in the topic of capital structure bottlers Nepal Ltd. by Aryal R.R (1991). The main objectives of the study was to evaluate the capital structure of bottlers Nepal Ltd. The researcher found that the company is using more debt in its capital structure. Due to the inefficient capital structure management, the profitability position of the firm was found to be poor and the overall performance was not better. Furthermore, the company is taking the burden of higher fixed charges. As a result, the cost of capital and financial risk was higher in the company during the study period. On the basis of all the findings, he concluded that the company is playing with the inefficient capital structure.

Pandey, M.K. (1999) carried out comparative study on capital structure of Standard Chartered Bank Limited and Nepal Bangladesh Ltd. General objective of the study was to analyze the capital structure of Standard Chartered Bank Ltd. and Nepal Bank Ltd. She found that the higher percentage of total debt in financing the assets in both the banks and they are operated with higher degree of financial risks during the study period. In the study, she found that the higher percentage of total debt in raising the assets in both the banks and they operated with higher degree of financial risks during the study period. Further she found that, the increasing trend of deposits, credit portfolios and profitability position over the last five years of study. Finally, she concluded that the outsider's claim in the total asset of the bank is higher than that of owner's. She stressed that the banking sector in Nepal is somehow doing well, even though it has to face a number of hurdle during the study period.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter is concerned with the procedures that are adopted in the research work. Research methodology deals with research design, nature and sources of data, method of data collection, data analysis tools and limitations of the methodology.

#### **3.2 Research Design**

Research design is an integrated framework of the whole study that the researcher in formulating, implementing and controlling the research work. The method and technique which guides to study and give ways to perform research work is known as research design. It is most necessary to complete the research and fulfill the objective of the research.

The main objective of the research is to evaluate the capital structure of Nabil Bank Limited. To complete this study following design and format has been adopted.

First of all, information and data are collected. The important information and data are selected. Then data are arranged in useful manner. After that, data are analyzed by using appropriate financial and statistical tools. In analysis part, interpretation and comments are also made wherever necessary.

Results and conclusion are given after analysis of data; recommendation and suggestion are also given. The design has been adopted from previous works. Previous thesis styles and formats have been followed.

#### **3.3 Nature and Sources of Data**

The study is based on secondary data provided by Nabil Bank Limited. Data and information are collected from annual reports of Nabil Bank limited.



Other relevant data and information are collected from different sources; the sources are mentioned in bibliography.

### **3.4 Data Collection Techniques**

Mainly, the study is dominated by secondary data collected from the above mentioned sources. Primary data and information also are used in this research work, which is collected by using unstructured interview with concerned personnel of the concerned institution. Thus, no questionnaire was constructed and no specific method was used to collect the required data. Other relevant data are collected from different sources.

### **3.5 Data Analysis Tools**

In this research work, only descriptive tools are used to get the meaningful result of the collected data and to meet the research objectives. Financial tools are the major tools for analysis. In addition to the financial ratios, other simple mathematical and statistical (descriptive) tools also are used in research. The major tools applied in this study are discussed in following section:

#### **3.5.1. Financial Tools**

Financial tools are: Share capital to total liabilities ratio, Reserve and surplus to total liabilities ratio, Total deposit to total liabilities ratio, Current liabilities ratio, Borrowing to total liabilities ratio Net worth to total liabilities ratio. Financial tools are used to examine the financial performance i.e. strength and weakness of band. In this study, financial tools like ratio analysis and financial statement analysis have been used. The analysis of financial mix is performed by using ratio analysis. It's a powerful tool of financial analysis. It is used to interpret the financial statements so that the strengths and weaknesses of a firm as well as its historical performance and current financial condition can be determined. Capital structure ratio. The ratio indicates the proportion of debt and equity in financing the firm's assets. It is concerned with the long term solvency of a firm. Capital structure ratios are calculated to measure the

financial risk and firm's ability of using the debt for the benefit of the shareholders.

**(a) Debt to Equity ratio**

This ratio is a measure of the relative amount provided by lenders and owners. It is also known as "External internal Equity Ratio." It is calculated according to the following Formula,

$$\text{Debt Equity Ratio} = \frac{\text{Amount of Debt}}{\text{Amount of Equity}}$$

This ratio indicates the cushion of ownership funds available to debt holder. It gives an idea of the amount of capital supplied to a firm by internal funds or owners an average debt to equity ratio of 1:1 is acceptable.

**(b) Debt ratio**

The debt ratio is defined as total debt divided by total assets. It indicates the percentage of assets that are financed through debt. It is calculated as under

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

This ratio should be 1:2 or 0.5:1. A ratio above 1:2 or 0.5:1 implies that lenders and creditors were providing more finance than ordinary shareholders and that too without expectation of a share in any surplus as compensation to creditors in extending credit. A very low ratio can cause worry to shareholders as it means company is not using debt to best advantage.

**(c) Interest Coverage Ratio**

It is designed to relate the interest Charge of a firm to its ability to service them. It is simply ratio of earning before tax and taxes for a particular reporting period to the amount of interest charge for the period. The reporting period here is of one year. This ratio measures the extent to which earning can decline without resultant financial embarrassment to the firm because of inability to meet annual interest cost. It means, too high or low ratio as well is unfavorable to the firms. High ratio implies that the firm is very conservative in using debt

and low ratio implies that the firm is using excessive debt and does not have the ability to offer assured payment of interest to the creditors.

Thus,

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest}}$$

**(d) Earning Per Share (EPS)**

A part from return the profitability of a firm from the point of view of the ordinary shareholders is earning per share. It measures the profit available to equity shareholder per share.

$$\text{EPS} = \frac{\text{Net after tax} - \text{Pref. Dividend}}{\text{Total No. of Share}}$$

**(e) Price Earning Ratio (P/E Ratio)**

Price-Earning ratio indicates investor's expectation about the growth of the firm's earnings.

$$\text{P/E Ratio} = \frac{\text{Market Price Per Share}}{\text{Earning Per Share}}$$

**(f) Return on Assets (ROA)**

This ratio measures the productivity of the assets. Higher ratio shows the higher return on the assets used in the business there by indicating effective use of the resources available and vice versa. The formula for computation of this ratio is as follows:

$$\text{ROA} = \frac{\text{Net Profit After Tax}}{\text{Total Assets}}$$

**(g) Return on Share holder's fund or Equity (ROSE)**

This ratio is ascertained for measuring the efficiency of the investment made by the shareholders in the business on the basis of the relationship between shareholder's fund and net profit:

$$\text{ROSE} = \frac{\text{Net Profit After Tax}}{\text{Shareholder fund}}$$

(Shareholders' Fund = Share Capital + Reserve Fund + Profit & Loss)

### **(g) Net income Approach (Overall Capitalization Rate)**

The overall cost of capital is measured by dividing net operating income by the value of firm is the book value debt and market value of equity overall cost of capital ( $K_o$ ).

$$K_o = \frac{\text{Earning Before Interest and Tax(EBIT)}}{\text{Total Value of firm}(V_o)}$$

### **(h) Net Operating income Approach (Equity Capitalization Rate)**

This approach argues that the value of the firm remains constant to the degree of leverage and equity capitalization rate tends to increase with the degree of leverage Equity capitalization Rate ( $K_e$ ).

$$K_e = \frac{EBIT - I}{S} \text{ or } \frac{EPS}{MVPS}$$

## **3.5.2 Statistical Tools**

Statistical and Research cannot be separated whenever research work is carried on statistics is most to have output of the research .To achieve the objective of the study, some important statistical tools such as mean, standard deviation, coefficient of variance, of correlation, regression analysis of important variables has been used which are as follows:

### **Average**

The most popular and widely used measure of central tendency is the arithmetic mean. It is also called simply “the mean” the mean is calculated by the sum of all the observations divided by the number of observations is called arithmetic mean. In such a cases, all items are equally important.

Thus, the average is expressed as:

$$\begin{aligned} \text{Average} &= \frac{\text{Sum of the value}}{\text{No.of observations}} \\ &= \frac{X_1 + X_2 + X_3 + \dots\dots\dots X_n}{N} \end{aligned}$$

Where,

N= Number of values

$X_n$ = Individual value for period t.

### **Standard deviation**

Standard deviation is best measure of dispersion. It is the absolute measure of dispersion of the value and shows the deviation or dispersion in absolute term. Here, the standard deviation is used to find out the deviation in absolute term. It is also known as “root mean – square deviation”.

$$S.D = \sqrt{\frac{\sum X^2}{N} - \left(\frac{\sum X}{N}\right)^2}$$

Here,

N = no. of observations

x = individual value

= simple arithmetic mean / average

### **Coefficient of Correlation**

Correlation coefficient is calculated of relationship between the deferent variables. When change in the value of one variable is accompanied by the change in value of the other two variables are said to have correlation. The study used Karl Pearson's correlation coefficient. The correlation coefficient between two variables x and y usually denoted by  $r_{xy}$  is a numerical measure of linear relationship between them.

$$r = r_{xy} = \frac{xy}{\sqrt{\sum x^2 \sum y^2}}$$

### **Probable Error (P.E.)**

The Probable error of the coefficient of correlation helps in interpreting its value. The probable error helps to determine reliability of computed correlation coefficient. So far, as it depends on the condition of random sampling. The probable error is defined by:

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}}$$

It can be interpreted to know whether it calculated value of is significant or not in the following way:

- If  $r < PE$  There is no evidence of correlation i.e.  $r$  is not at all significant.
- If  $r > 6 P.E.$  The existence of correlation is practically certain i.e.  $r$  is significant.
- The P.E. of correlation may be used to determine the limits within which the population correlation coefficient lies. The limit of the population correlation is  $r + P.E.$

### **3.6 Limitations of the Methodology**

The study is carried out within the framework of descriptive research design. So, it is difficult to illuminate the limitations of the descriptive research design, in which the study as well as the methodology is bounded.

The whole study is based on secondary data such as financial statement, annual report and web sites of the company concerned. Accuracy, reliability and validity of the study depend upon the data provided by concerned bank.

Simple random sampling, lottery method without replacement is used to draw the sample which is not free from criticisms. So, it also imposes to draw the line of limitation. Finally, the different tools are used to analyze the collected data, which are based on certain assumptions. So, reliability of the analysis depends upon the circumstances on which the models are based.

## CHAPTER – IV

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Introduction

This chapter deals with the presentation and analysis of data collected from the different sources. This chapter can be said the most important chapter of this study which brings the result. All interpretations, comments, recommendations and suggestion are based on this analytical part.

In this chapter, collected data or information are presented in a well manner of tables, diagrams, graphs etc. and those are analyzed using proper financial and statistical tools and techniques. The interpretations and comments are made along with the analysis.

#### 4.2 Analysis of Capital Structure and Ownership

It describes the capital structure position; on the basis of the ownership and proportion of ownership of share capital.

##### 4.2.1 Analysis of Capital Structure position

**Table No. : 4.2.1**

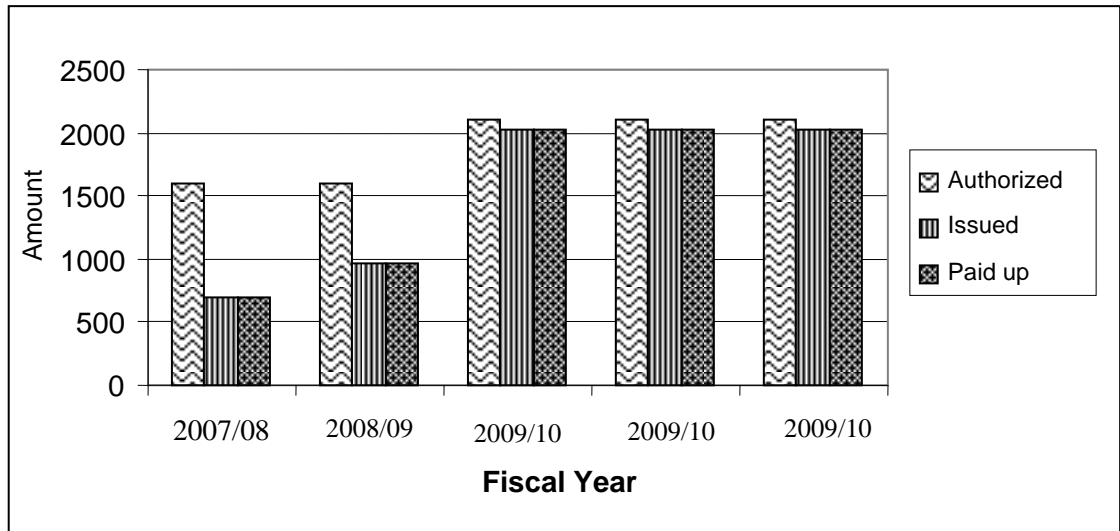
#### **Capital Structure Position**

*Amount in million*

<b>Years→ Capital ↓</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Authorized	1600	1600	2100	2100	2100
Issued	689	966	2030	2030	2030
Paid up	689	966	2030	2030	2030

*Source: Annual Report of NABIL Bank*

**Figure No: 4.2.1**  
**Capital Structure position**



The bank has authorized capital of Rs. 1600 million and its issued capital and paid up capital is Rs. 689, Rs. 689 respectively in the Fiscal Year 2007/08. In Fiscal Year 2008/09, the authorized capital and issued capital and paid up capital is Rs. 1600 million, Rs.966 million and Rs. 966 million respectively. During the period Fiscal Year 2009/10 to 2011/12 the bank has continued same capital structure i.e. authorized capital, issued capital and paid up capital is Rs. 2100 million, Rs. 2030, Rs. 2030 respectively.

#### 4.2.2 Analysis of Share Capital Ownership

**Table No. : 4.2.2**

#### Share Capital Ownership

*Amount in million*

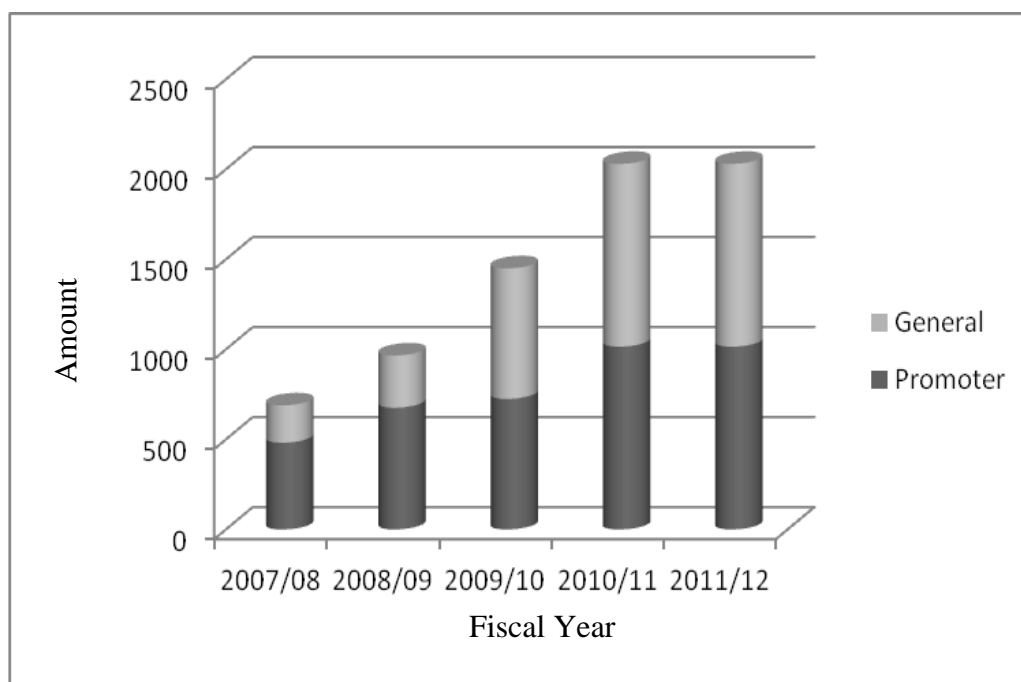
<b>Years→ Owners ↓</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Promoter	482	676	725	1015	1015
General	207	290	725	1015	1015
<b>Total</b>	<b>689</b>	<b>966</b>	<b>1450</b>	<b>2030</b>	<b>2030</b>

*Source: Annual Report of NABIL Bank*



**Figure No.: 4.2.2**

**Share Capital Ownership**



**Table No.: 4.2.2.1**

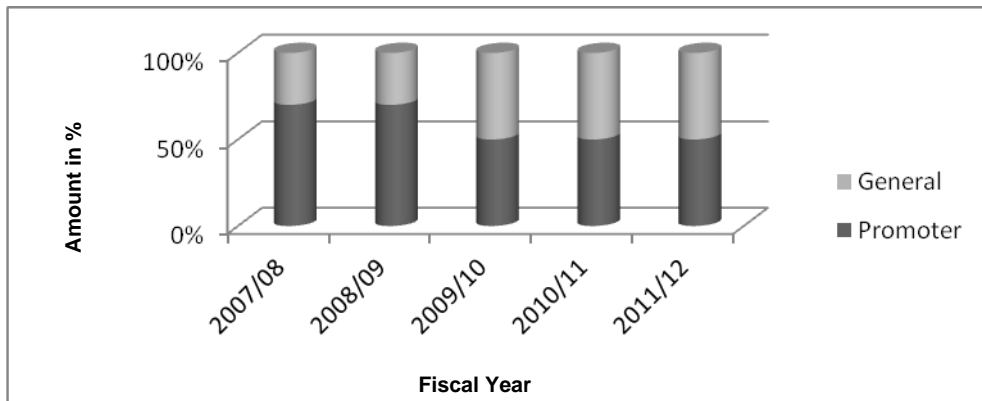
**Proportion of Ownership**

<b>Years→ Owners ↓</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Promoter	70%	70%	50%	50%	50%
General	30%	30%	50%	50%	50%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.2.2.1**

**Ownership of Share Capital**



It is found that the majorities of the share from promoter in the Fiscal year 2007/08 and 2008/09 i.e. Promoter's share is 70% and General's share is 30%. During the period of three Fiscal Years from 2009/10 to 2011/12 the proportions of Share of Promoter and General is 50% and 50% respectively.

**4.2.3 Analysis of Source of Capital**

The NABIL Bank has the following different source of fund.

**Table No. 4.2.3**

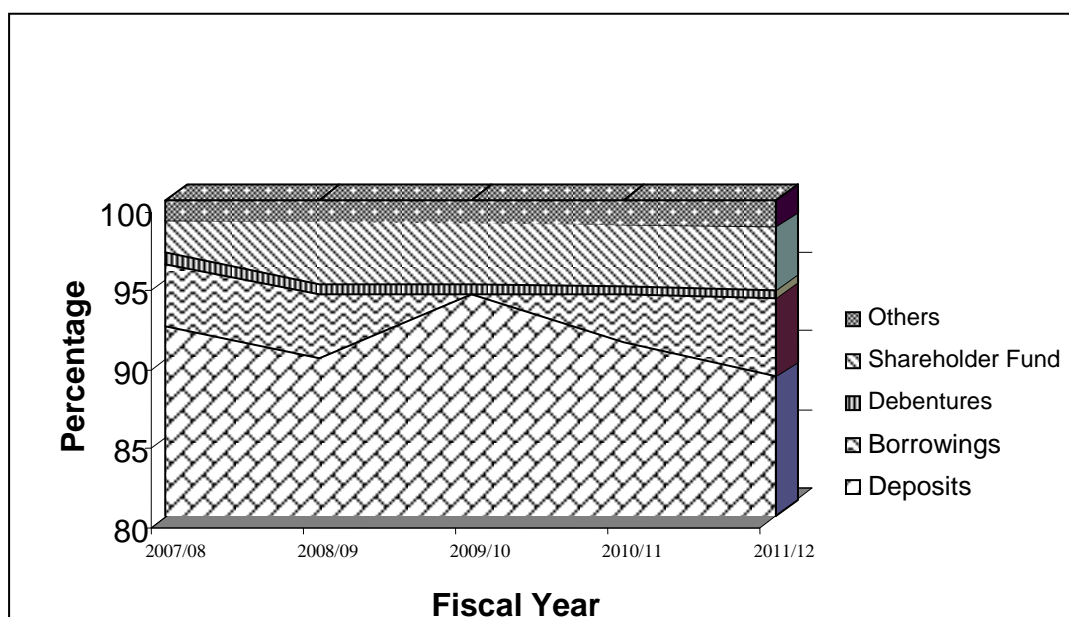
**Sources of Capital**

Years→ Sources of Fund ↓	2007/08	2008/09	2009/10	2010/11	2011/12
Deposits	92.00 %	90.00%	94.00%	91.00%	88.80%
Borrowings	4.00 %	4.00%	0.10%	3.00%	5.00%
Debentures	0.70 %	0.70%	0.60%	0.50%	0.50%
Shareholders' Fund	2.00 %	4.00%	4.00%	4.00%	4.00%
Others	1.30 %	1.30%	1.30%	1.50%	1.70%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Sources: Annual Report of NABIL Bank*

**Figure No.: 4.2.3**

**Sources of Capital**



The bank has managed the funds from various sources like Deposits, Borrowings, Debentures, Capital Fund and Other sources. In the Fiscal Year 2007/08, the bank used Deposits 91%, Borrowings 4%, Debentures 0.70%, Shareholders' Fund 2.00% and others sources as 1.30%. In the Fiscal Year 2008/09 the bank used Deposits, Borrowings, Debentures, Shareholders' Fund and Others sources as 90%, 4%, 0.70%, 4%, 1.3% respectively. In the Fiscal Year 2009/10, the bank used Deposits, Borrowings, Debentures, Shareholders' Fund and Others sources as 94%, 0.10%, 0.60% 4% and 1.30% respectively. In the Fiscal Year 2010/11, the bank used Deposits, Borrowings, Debentures, Shareholders' Fund and others sources as 91%, 3%, 0.50%, 4% and 1.5% respectively. Similarly in the Fiscal Year, the bank has used Deposits 88.80%, Borrowings 5%, Debentures 0.50%, Capital Fund 4% and other sources 1.70%.

**4.2.4 Analysis of Share Capital**

Total capital and liabilities are all items included in liabilities side of balance sheet. The commercial bank s has to manage the liabilities very carefully to minimize risk and achieve desirable Profit. Commercial banks have

to consider various components of liabilities in details regarding how to manage them properly. The total liabilities of commercial banks consist of their liabilities to depositor, Shareholder, lenders, and the central Bank being the lender of the last lender. The various item included in the liabilities of commercial banks are equity, reserve, borrowings, deposits, new accounts, money market liabilities, deposit account , wholesale and retail certificate of deposits, negotiable instruments. Brokered deposits, Euro dollar deposits, Interest paying liabilities, shot-term loan loans, bills payable, and other outstanding expenses. The following table shows the position of total equity Share capital of NABIL Bank.

**Table No. : 4.2.4**

**Share Capital**

*Amount in million*

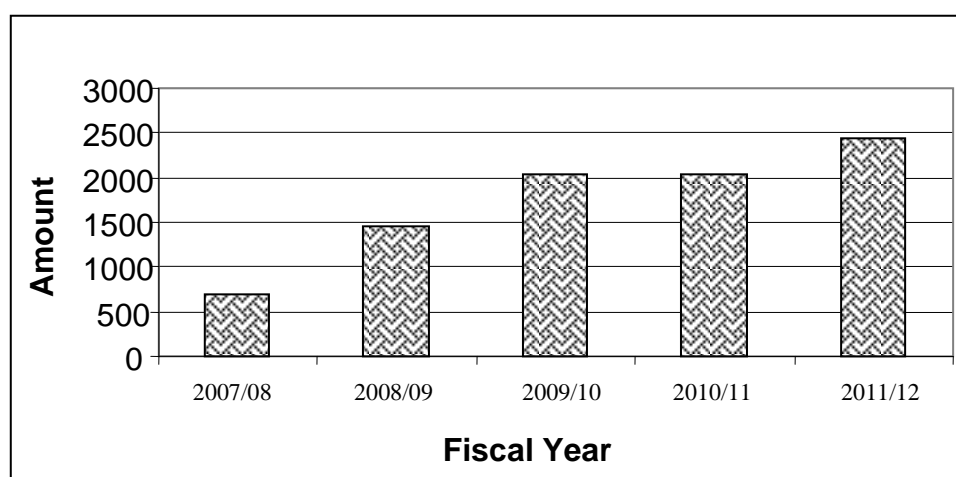
<b>Fiscal Year</b>	<b>Amount</b>	<b>Change Rate</b>	<b>Proportion to Total Liabilities</b>
2007/08	689.216	-	1.89%
2008/09	1448.621	52.42%	3.36
2009/10	2028.774	28.60	3.95
2010/11	2029.769	0.05	3.55
2011/12	2435.723	16.67	3.93
<b>Average</b>		24.43%	3.34%

*Source: Annual Report of NABIL Bank*

Proportion of share capital among the total capital and liabilities is 1.89% in 2007/08, 3.36% in 2008/09, 3.95% in 2009/10, 3.55% in 2010/11 and 3.93% in 2011/12. The proportion of share capital over the total capital and liabilities is highest in the fiscal year 2009/10. The proportion is smallest in the fiscal year 2007/08. The proportion is in fluctuation trend. It shows the liabilities are increasing more than share capital. The average proportion rate is 3.34%. It can be present presented in the following bar chart:

**Figure No. 4.2.4**

**Share Capital**



**4.2.5 Reserve and surplus**

The reserve and surplus is Rs.1747.983 millions in 2007/08, 1681.620 millions in 2008/09, 1807.933 millions in 2009/10, 2536.748 millions in 2010/11 and 3015.162 millions in 2011/12 respectively.

Table No.: 4.2.5

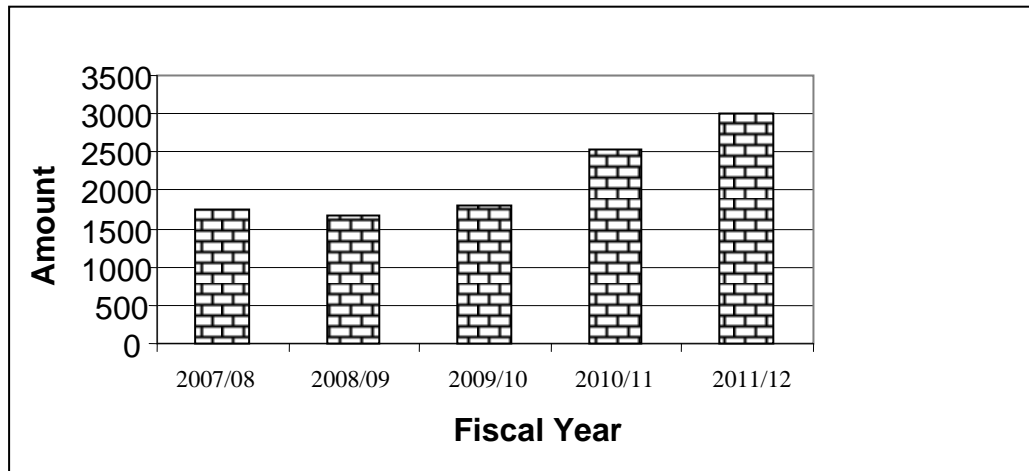
**Position of Reserve & Surplus**

F.Y	Reserve & surplus	Change rate	Proportion to total capital & liabilities
2007/08	1747.983	-	4.80%
2008/09	1681.620	-3.95%	3.90
2009/10	1807.933	6.99	3.52
2010/11	2536.748	28.73	4.44
2011/12	3015.162	15.87	4.86
Average		11.91%	4.30%

*Source: Annual reports of Nabil bank limited*

**Figure No. : 4.2.5**

**Reserve and Surplus**



The amount is regularly increasing but the increasing trend is not consistent. The increasing trend is fluctuating. From 2007/08 to 2008/09 it has changed by -3.95%, from 2008/09 to 2009/10 it has changed by 6.99%, from 2009/10 to 2010/11 the change rate is 28.73% and from 2010/11 to 2011/12 it has changed by 15.87%. The average changed rate is 11.91%.

The proportion of reserve and surplus over the total capital and liabilities are 4.80%, 3.90%, 3.52%, 4.44%, and 4.86% for year 2007/08, 2008/09, 2009/10, 2010/11 and 2011/12 respectively. The average proportion is 4.30%. The trend of proportion is in decreasing order upto year 2009/10 and after that year it is increasing in trend.

**4.2.6 Analysis of Deposit Position**

The bank uses different types of deposit schemes to collect money from customer. They are fixed deposit, called deposit, saving deposit, and other non-interest bearing deposits. The bank introduced various types of schemes on saving accounts with different interest rate.

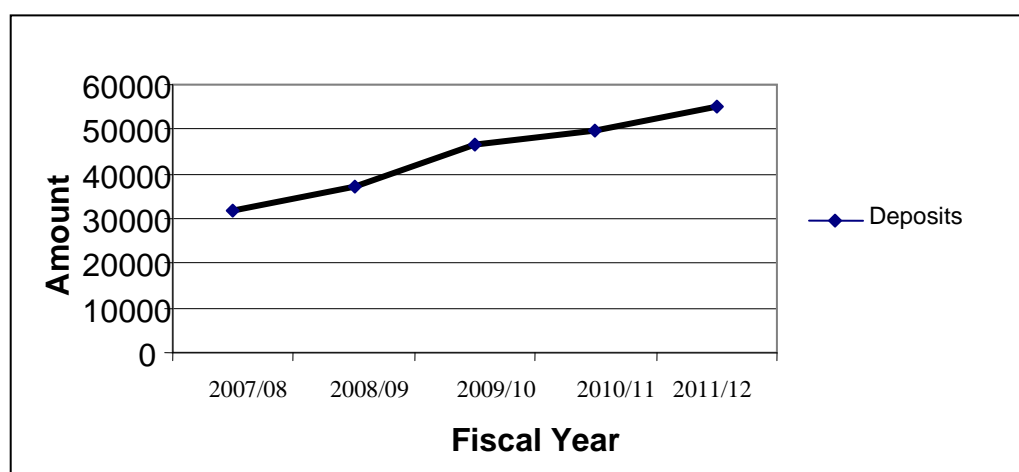
**Table No. : 4.2.6**  
**Position of Deposits**

F.Y	Deposits	Yearly change	Proportion to capital & liabilities
2007/08	31915.047	-	87.64%
2008/09	37348.256	14.55%	86.56
2009/10	46410.701	19.53	90.31
2010/11	49696.113	6.61	86.90
2011/12	55023.695	9.68	88.69
<b>Average</b>	<b>44078.76</b>	<b>12.59</b>	<b>88.02</b>
<b>Standard Deviation</b>		<b>4.90</b>	

*Source: Annual Reports of Nabil bank limited*

**Figure No.: 4.2.6**

**Total Deposits Trend**



The proportion of deposit over the total capital and liabilities are 87.64%, 86.56%, 90.31%, 86.90% and 88.69% in 2007/08, 2008/09, 2009/10, 2010/11 and 2011/12 respectively. It shows that the proportion of deposit is in increasing. The deposit is directly related in investment policy. The average proportion is 88.02%.

The annual change rate of deposit is in fluctuating trend. It has changed by 14.55% in 2007/08 to 2008/09, by 19.53% in 2008/09 to 2009/10 by

6.61% from 2009/10 to 2010/11 and 9.68% from 2010/11 to 2011/12. The average change rate of deposit per year is 88.02%. and standard deviation is 4.90.

#### 4.2.7 Analysis of Deposit Mixed

**Table No.: 4.2.7.1**

#### **Deposit Mixed Analysis**

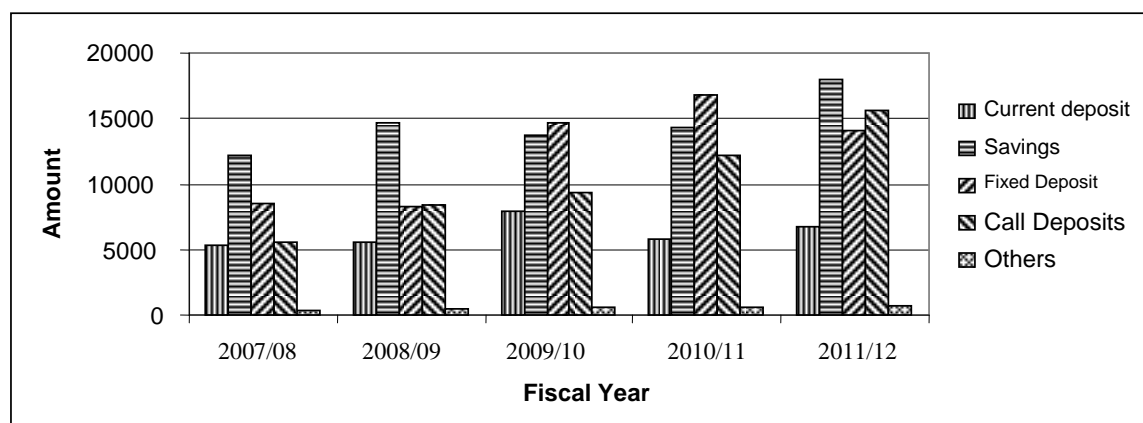
*Amount in million*

<b>Years→ Deposit Mixed ↓</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Current Deposit	5365.8	5515.9	7920.7	5818.4	6734.4
Savings	12160.0	14620.4	13783.6	14288.5	17994.8
Fixed Deposit	8464.1	8310.7	14711.1	16840.8	14044.9
Call Deposits	5563.4	8438.3	9294.0	12166.3	15566.7
Others	361.8	463.0	625.5	577.3	682.9
<b>Total</b>	<b>31915.0</b>	<b>37348.3</b>	<b>46334.8</b>	<b>49691.4</b>	<b>55023.7</b>

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.2.7.1**

#### **Deposit Mixed Analysis**





**Table No.: 4.2.7.2**

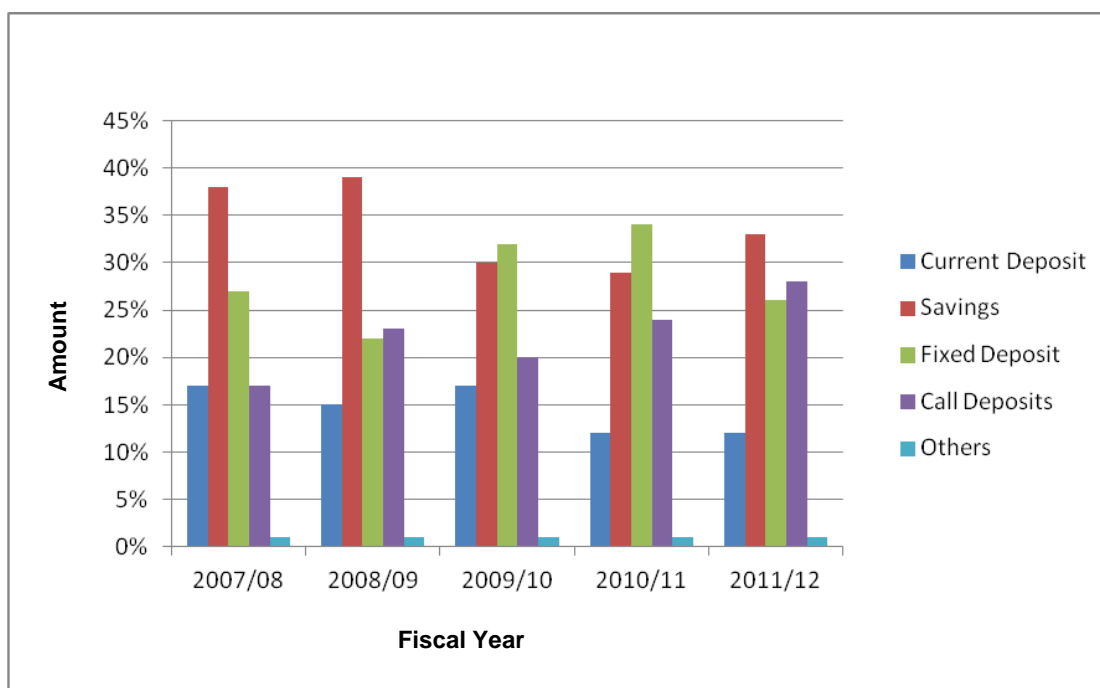
**Proportion of Deposit Mix**

<b>Years→ Deposit Mixed ↓</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
Current Deposit	17%	15%	17%	12%	12%
Savings	38%	39%	30%	29%	33%
Fixed Deposit	27%	22%	32%	34%	26%
Call Deposits	17%	23%	20%	24%	28%
Others	1%	1%	1%	1%	1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.2.7.2**

**Proportion of Deposit Mix**



Generally, the bank has the following deposit sources: Current deposit, Savings, Fixed deposit, Call deposit and others.

In the Fiscal Year 2007/08, the bank has Rs.5365.8 million(i.e.17%) of Current deposit, Rs.12160 (i.e.38%) of Savings, Rs.8464.1 (i.e.27%) of Fixed deposit, Rs. 5563.4 (i.e. 17%) of Call deposits and Rs.361.8 million(i.e.1%) of other deposits

In the Fiscal Year 2008/09, the bank has Rs. 5515.9million (i.e.15%) of Current deposit, Rs. 14620.4 (i.e.39%) of Savings, Rs. 8310.7 (i.e.22%) of Fixed deposit, Rs. 8438.3(i.e. 23%) of Call deposits and Rs. 463.0 million (i.e.1%) of other deposits.

In the Fiscal Year 2009/10, the bank has Rs. 7920.7 million (i.e.17%) of Current deposit, Rs. 13783.6 (i.e.30%) of Savings, Rs. 14711.1 (i.e.32%) of Fixed deposit, Rs. 9294.0 (i.e. 20%) of Call deposits and Rs. 625.5million (i.e.1%) of other deposits.

In the Fiscal Year 2010/11, the bank has Rs. 5818.4 million (i.e.12%) of Current deposit, Rs. 14288.5 (i.e.29%) of Savings, Rs. 16840.8 (i.e.34%) of Fixed deposit, Rs. 12166.3 (i.e. 24%) of Call deposits and Rs. 577.3 million (i.e.1%) of other deposits.

In the Fiscal Year 2011/12, the bank has Rs. 6734.4 million (i.e.12%) of Current deposit, Rs. 17994.8 (i.e.33%) of Savings, Rs. 14044.9 (i.e.26%) of Fixed deposit, Rs. 15566.7 (i.e. 28%) of Call deposits and Rs. 682.9 million (i.e.1%) of other deposits.

## 4.2.8 Borrowings

**Table No.: 4.2.8**

### **Borrowings**

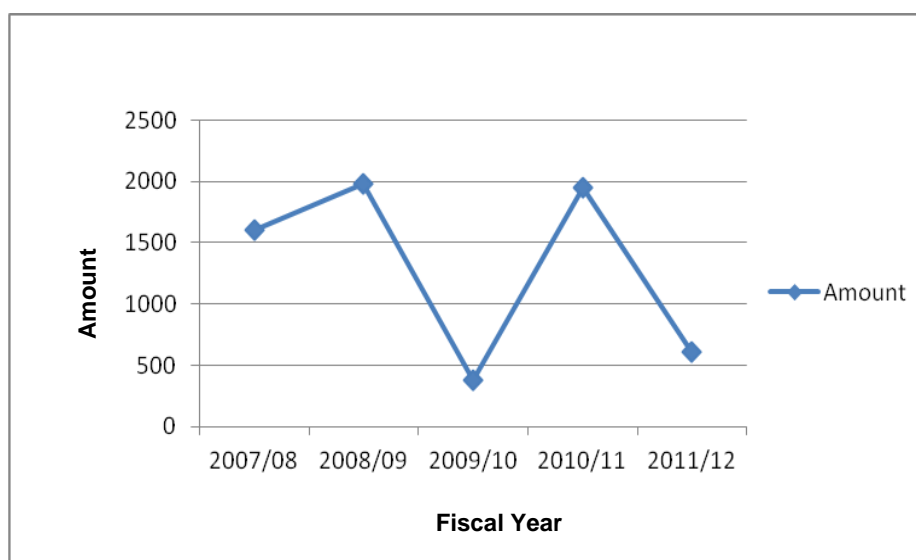
*Amount in Million*

<b>Years</b>	<b>Amount</b>	<b>Change Rate</b>	<b>Proportion to Total Liabilities (%)</b>
<b>2007/08</b>	1600	81.24	4.16
<b>2008/09</b>	1981.3	23.83	4.31
<b>2009/10</b>	374.9	81.00	0.70
<b>2010/11</b>	1950.60	420.30	3.18
<b>2011/12</b>	611.10	68.67	0.85
<b>Average</b>	<b>1303.58</b>	<b>135.008</b>	<b>2.64</b>

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.2.8**

### **Borrowings**



The value of Borrowing is Rs. 1600 million in the Fiscal Year 2007/08, in the Fiscal Year 2008/09 is Rs. 1981.30 million, in the Fiscal Year 2009/10 is Rs. 374.90, in the Fiscal Year 2010/11 is Rs. 1950.60 and in the Fiscal Year 2011/12 is Rs. 611.10. The average change rate is 135.008 percent. The highest change rate is 420.30 in the Fiscal Year 2010/11. Borrowing proportion among the total liabilities are 4.16 in FY 2007/08, 4.31 in FY 2008/09, 0.70 in 2009/10, 3.18 in FY 2010/11 and in FY 2011/12 is 0.85. The average proportion is 2.64.

#### 4.2.9 Bills Payable

**Table No.: 4.2.9**

#### **Bills Payable**

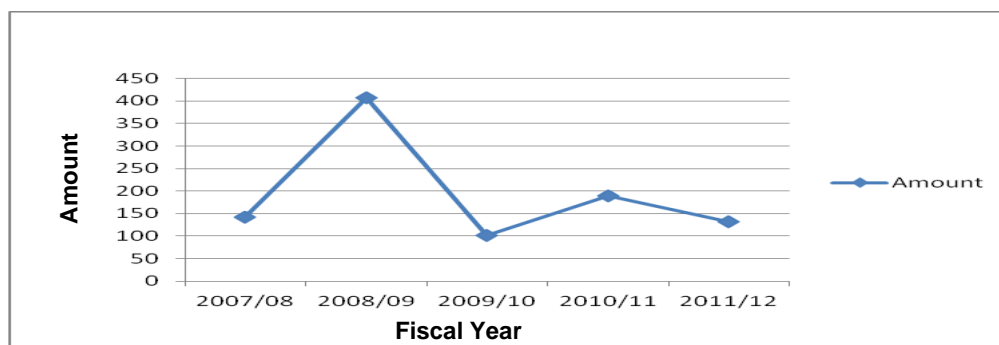
*Amount in Million*

<b>Years</b>	<b>Amount</b>	<b>Change Rate (%)</b>	<b>Proportion to Total Liabilities (%)</b>
<b>2007/08</b>	141.90	50.63	0.37
<b>2008/09</b>	407.70	187.31	0.89
<b>2009/10</b>	101.10	303.26	0.19
<b>2010/11</b>	189.60	87.54	0.31
<b>2011/12</b>	132.40	43.20	0.19
<b>Average</b>	<b>194.54</b>	<b>134.39</b>	<b>0.39</b>

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.2.9**

**Bills Payable**



The value of Bills Payable is Rs. 141.90 million in FY 2007/08. In FY 2008/09 is Rs.407.70 million, in FY 2009/10 is Rs. 101.10, in FY 2010/11 is Rs. 189.60 million and in FY 2011/12 is Rs. 132.40. The average Bills Payable throughout the five years period is Rs. 194.54 millions. The average change rate is 134.39 percent. The Bills Payable proportion among the total liabilities is 0.37 in FY 2007/08, 0.89 in FY 2008/09, 0.19 in FY 2008/09, 0.19 in FY 2009/10, 0.31 in FY 2010/11, 0.19 in FY 2011/12. The average proportion is 0.39.

**4.2.10 Analysis of Debenture**

**Table No.: 4.2.10**

**Debenture**

*Amount in Million*

Years	Amount	Change Rate (%)	Proportion to Total Liabilities (%)
<b>2007/08</b>	240	-	0.62
<b>2008/09</b>	300	25	0.65
<b>2009/10</b>	300	-	0.55
<b>2010/11</b>	300	-	0.49
<b>2011/12</b>	300	-	0.42
<b>Average</b>			<b>0.55</b>

*Source: Annual Report of NABIL Bank*

The bank has the provision of depositing amount in Debenture Redemption Fund at 20% p.a. after the six year period from the date of issuing debenture. The NABIL bank issues debenture at 8.5 p.a. at par value 1000. The debenture will mature in the Fiscal Year 2075B.S. at the end of Ashadh month.

#### 4.2.11 Analysis of Total Capital and Liabilities

**Table No.: 4.2.11**

#### **Overall Capital Analysis**

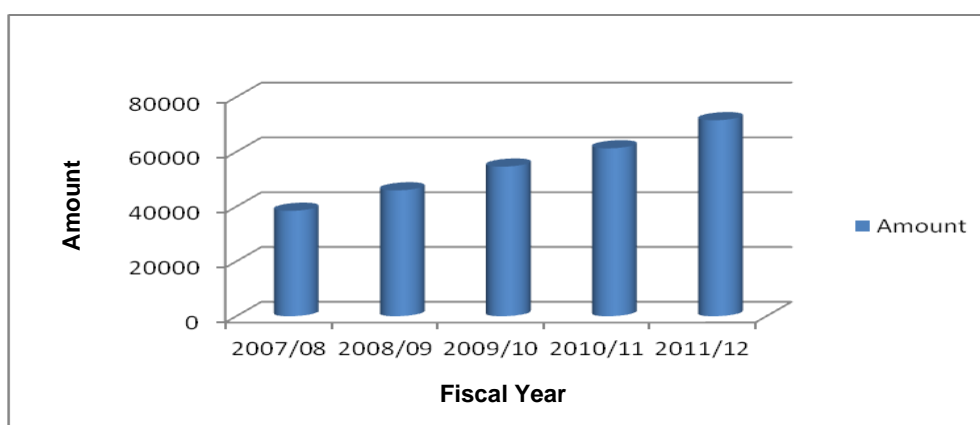
*Amount in Million*

<b>Years</b>	<b>Amount</b>	<b>Change Rate (%)</b>	<b>Proportion to Total Liabilities (%)</b>
<b>2007/08</b>	38478.60	29.73	100
<b>2008/09</b>	45941.60	19.40	100
<b>2009/10</b>	54609.80	18.87	100
<b>2010/11</b>	61292.60	12.24	100
<b>2011/12</b>	71545.30	16.73	100
<b>Average</b>	<b>54373.58</b>	<b>19.39</b>	<b>100</b>
<b>Standard Deviation</b>	<b>12908.77</b>		

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.2.11**

#### **Overall Capital Analysis**



The value of Total Capital and Liabilities is Rs. 38478.60 million in FY 2007/08, Rs. 45941.60 million in FY 2008/09, Rs. 54609.80 million in FY 2009/10, Rs. 61292.60 in FY 2010/11 and Rs. 71545.30 in FY 2011/12. The average change rate is 19.39 percent and standard deviation is 12908.77.

#### **4.2.12 Analysis of Capital Structure Adequacy on Risk Weighted Assets Analysis**

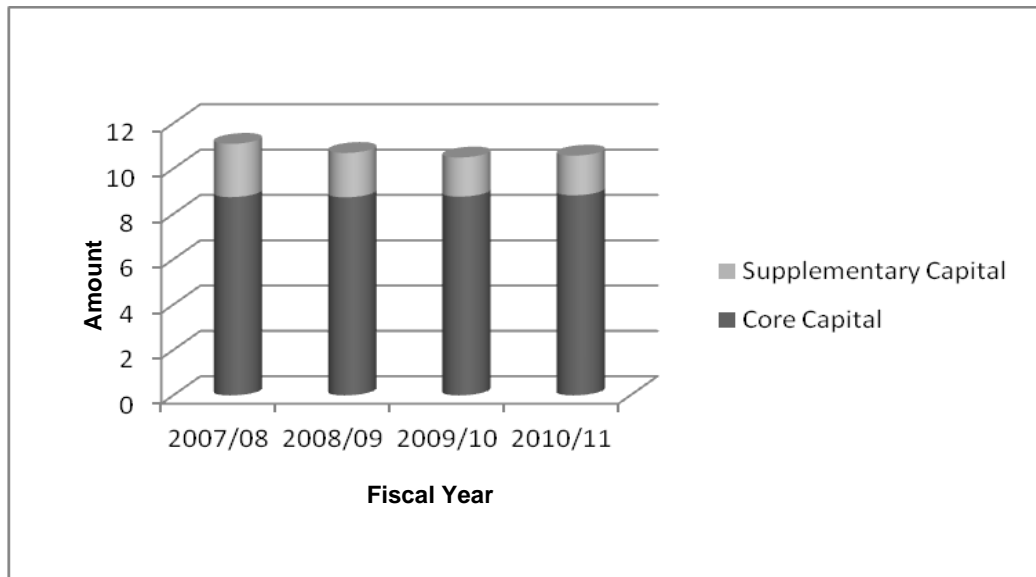
Qualifying capital of capital consists of Tier 1(core) capital and Tier 2 (supplementary) capital elements, net of required deductions from capital. Thus for the purpose of calculation of regulatory capital, banks are required to classify their capital into two parts: Core capital and Supplementary capital.

**Table No.: 4.2.12  
Capital Structure Adequacy**

<b>Years</b>	<b>Core Capital (%)</b>	<b>Supplementary Capital (%)</b>	<b>Total Capital</b>	<b>% Change</b>
<b>2007/08</b>	8.75	2.35	11.10	
<b>2008/09</b>	8.74	1.96	10.70	3.74
<b>2009/10</b>	8.77	1.73	10.50	1.90
<b>2010/11</b>	8.83	1.75	10.58	0.76
<b>2011/12</b>	9.30	1.71	11.01	4.06
<b>Average</b>	<b>8.88</b>	<b>1.90</b>	<b>10.78</b>	
<b>Standard Deviation</b>	<b>0.238474</b>	<b>0.270924</b>	<b>0.264613</b>	
<b>Correlation coefficient</b>			<b>-0.468</b>	
<b>PE (r)</b>			<b>0.236</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.2.12**  
**Capital Structure Adequacy**



The composition of total capital is made by core capital and supplementary capital. Adequacy of capital fund on weighted assets is 11.10 in FY 2007/08, in FY 2008/09 is 10.70, in FY 2009/10 is 10.50, in FY 2010/11 is 10.58 and in FY 2011/12 is 11.01. All the period the standard adequacy under NRB rule is sufficient.

**4.3 Financial Analysis**

The ratios of a firm by themselves do not reveal anything. For meaningful interpretation, the ratios of a firm should be compared with the ratios of similar firms and the international and national standard and industry norms. Such comparisons will reveal whether the firm is significantly out of line with its competitors. If it significantly out of line, the firm should undertake a detailed analysis to spot out the troubled areas. The study is conducted using each of the bank's financial statement for the last six fiscal years. Hence, various as well as statistical tools to analyze the compatibility of the banks.



### 4.3.1 Leverage Ratio Analysis

Leverage ratio reflects the extent to which the banks depend on debt capital structure. Financial leverage is magnification of risk and return introduced through the use of fixed cost financing such as debt and preferred stock. In order to know the long-term financial position, leverage ratios are calculated. These ratios are also called „capital structure ratios“. These ratios will indicate the proportion of debt equity in the capital structure of a bank.

#### 4.3.1.1 Total Debt to Total Assets Ratio

Debt ratio measures relationship between total debts and total assets. Debt to total asset ratio measure the proportion of total assets financed by the debt. This ratio is:

$$\text{Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

**Table No.: 4.3.1.1**  
**Debt to Total Assets**

*Amount in Million*

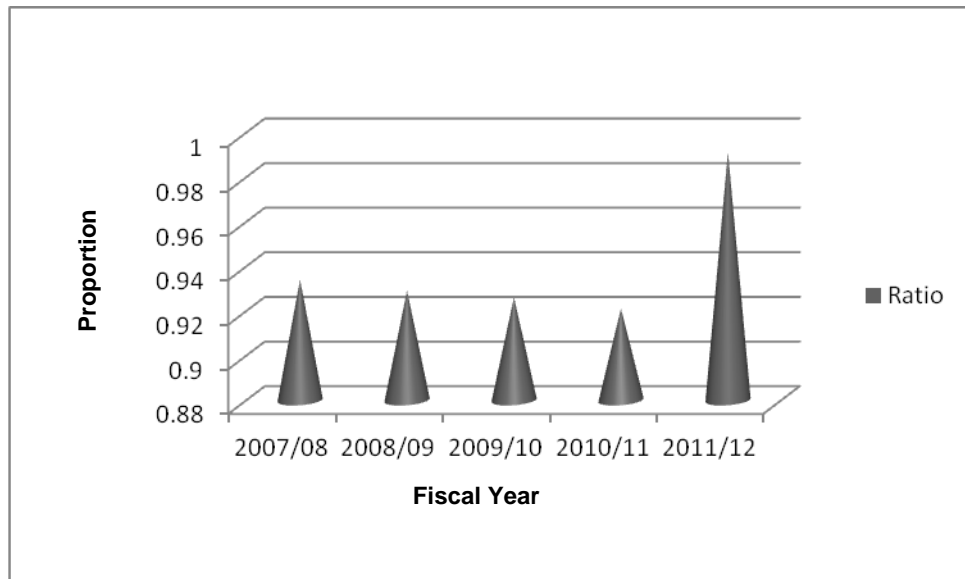
<b>Years</b>	<b>Total Assets</b>	<b>Total Debts</b>	<b>Ratio</b>	<b>% Change</b>
<b>2007/08</b>	37133	34696	0.934	-
<b>2008/09</b>	43867	40737	0.929	0.54
<b>2009/10</b>	52152	48315	0.926	0.32
<b>2010/11</b>	58141	53575	0.921	0.54
<b>2011/12</b>	63200	62655	0.991	7.6
<b>Average</b>	<b>50898.60</b>	<b>47995.60</b>	<b>0.94</b>	
<b>Standard Deviation</b>	<b>10539.01</b>	<b>10905.23</b>	<b>0.0288</b>	
<b>Correlation coefficient</b>			<b>0.990</b>	
<b>PE (r)</b>			<b>0.006</b>	

*Source: Annual Report of NABIL Bank*

The High Debt Ratio shows bank's success in exploring debt to be more profitable as well as it also indicates its riskier capital structure and vice versa.

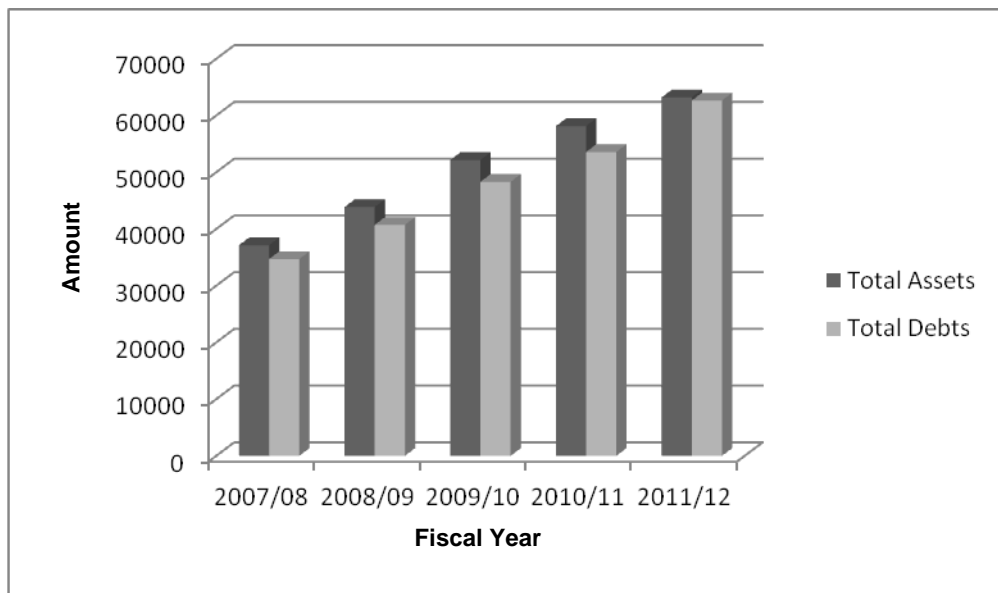
**Figure No.: 4.3.1.1**

**Debt Ratio**



**Figure No.: 4.3.1.2**

**Total Assets and Debt**



The Debt to Total Assets ratio in FY2007/08 is 0.934, in FY 2008/09 is 0.929, in FY 2009/10 is 0.926, in FY 2010/11 is 0.921 and in FY 2011/12 is 0.991. The average ratio is 0.94 and standard deviation is 0.0288. The correlation coefficient is 0.990.

The assets and debts are increased every year. The assets and debt in FY 2007/08 is Rs. 37133 and 34696 million, in FY 2008/09 is Rs. 43867 and Rs.40737 million, in FY 2009/10 is Rs. 52152 and Rs. 48315 million, in FY 2010/11 is Rs. 58141 and Rs. 53575 and in FY 2011/12 is Rs. 63200 and Rs. 62655 million respectively. The average Total Assets and Debts are Rs.50898.01 and Rs.47995.60 million respectively. The standard deviation is 10539.01 and 10905.23 respectively.

#### **4.3.1.2 Total Credit to Deposit Ratio**

This ratio explains how much credit is created through the investment of fund collecting from the customer. The bank received deposit from one customer, invest it to other customer and credit. This ratio is specially indicates the efficiency of investment. It can be calculated by the following formula:

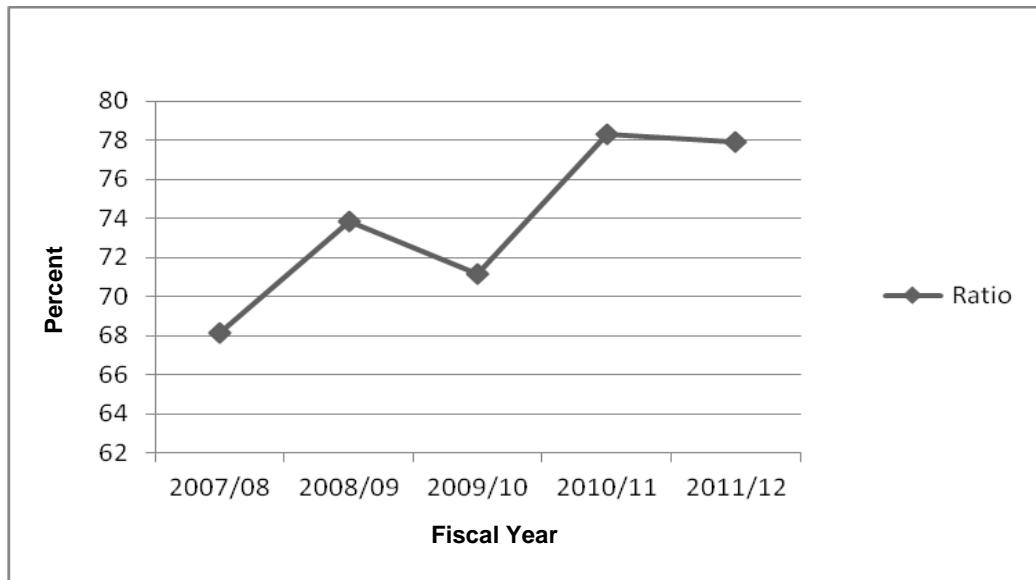
$$\text{Credit to Deposit Ratio} = \frac{\text{Total Credit}}{\text{Total Deposit}}$$

**Table No.: 4.3.1.2**  
**Total Credit to Deposit Ratio**

<b>Years</b>	<b>Total Credit to Deposit Ratio %</b>	<b>% Change</b>
<b>2007/08</b>	68.18	-
<b>2008/09</b>	73.87	8.35
<b>2009/10</b>	71.17	3.79
<b>2010/11</b>	78.29	10.00
<b>2011/12</b>	77.91	0.49
<b>Average</b>	<b>73.884</b>	
<b>Standard Deviation</b>	<b>4.345</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.1.2**  
**Credit to Deposit Ratio**



The credit to deposit ratio in FY 2007/08 is 68.12 percent, in FY 2008/09 is 73.87 percent which is increased by 8.35%, in FY 2009/10 is 71.17 percent which is decreased by 3.79 percent, in FY 2010/11 is 78.29 percent which is increased by 10.00 percent and in FY 2011/12 is 77.91 percent which is decreased by 0.49 percent. The average credit to deposit ratio is 73.884 percent and standard deviation is 4.345.

#### **4.3.1.3 Total debt to equity ratio analysis**

The debt-equity ratio shows the relationship between banks debt and equity financing. It measures the relative interest of creditors and owners. Debt equity ratio, an important tool of financial analysis, depicts an arithmetical relation between debt funds and owners' funds. The total debt includes current accounts, saving accounts, calls and short deposits, overdraft fixed deposit, loan and advances and borrowing from other banks. Shareholder's equity or net worth includes paid-up capital, reserve and surplus.

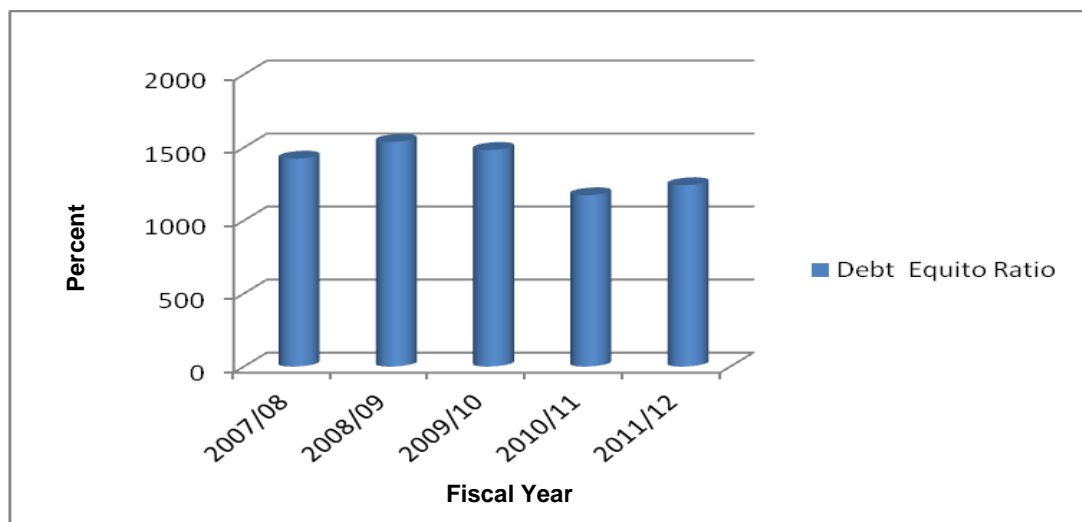
**Table No.: 4.3.1.3**  
**Debt Equity Ratio**

*Amount in Million*

<b>Fiscal Years</b>	<b>Equity Capital</b>	<b>Debt Capital</b>	<b>Ratio (%)</b>	<b>% Change</b>
<b>2007/08</b>	2437	34696	1423.72	-
<b>2008/09</b>	2647	40737	1538.99	8.10
<b>2009/10</b>	3257	48315	1483.42	3.75
<b>2010/11</b>	4567	53575	1173.09	26.45
<b>2011/12</b>	5045	62655	1241.92	5.87
<b>Average</b>	<b>3590.60</b>	<b>47995.60</b>	<b>1372.228</b>	<b>11.04</b>
<b>Standard Deviation</b>	<b>1162.013</b>	<b>10905.23</b>	<b>157.69</b>	
<b>Correlation coefficient</b>			<b>0.964</b>	
<b>PE (r)</b>			<b>0.0055</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.1.3**  
**Debt Equity Ratio**



The Debt Ratio in the Fiscal Year 2007/08 is 1423 percent, in FY 2008/09 is 1538.99 percent, in FY 1483.42 percent, in FY 1173.09 percent and in FY 2011/12 is 1241.92 percent. The average Debt Equity Ratio is 1372.228 percent and standard deviation is 157.69 and correlation coefficient between total debt and share capital is 0.964 The Probable Error of correlation coefficient is 0.0055.

#### 4.3.1.4 Equity Multiplier

It is the relationship between total assets and equity which measures rupees amount of assets for rupees of equity. The equity multiplier ratio is amount of assets for each amount of equity. This ratio is calculated as follows:

$$\text{Equity Multiplier} = \frac{\text{Total Assets}}{\text{Total Equity}}$$

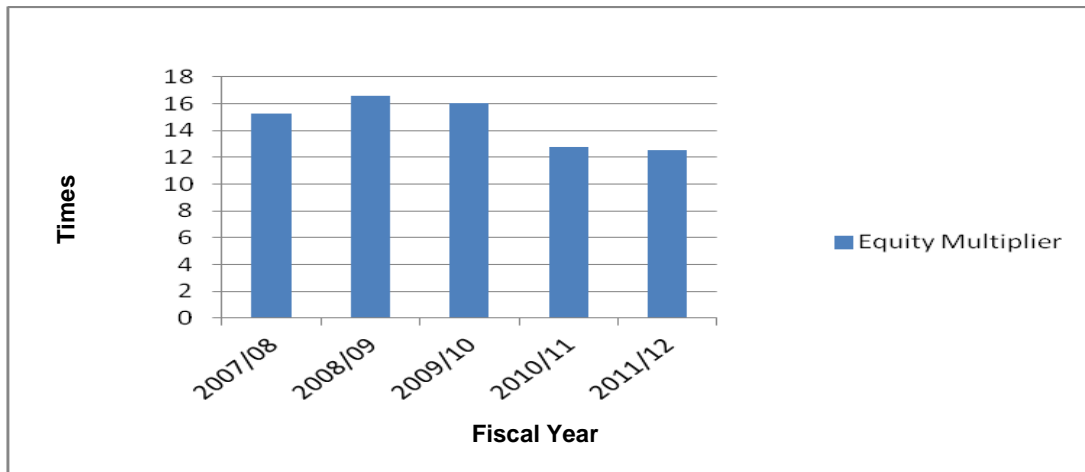
**Table No.: 4.3.1.4**  
**Equity Multiplier Ratio**

*Amount in Million*

<b>Fiscal Years</b>	<b>Total Assets</b>	<b>Total Equity</b>	<b>Ratio</b>	<b>% Change</b>
<b>2007/08</b>	37133	2437	15.24	-
<b>2008/09</b>	43867	2647	16.57	8.73
<b>2009/10</b>	52152	3257	16.01	3.50
<b>2010/11</b>	58141	4567	12.73	25.77
<b>2011/12</b>	63200	5045	12.53	1.60
<b>Average</b>	<b>50898.60</b>	<b>3590.60</b>	<b>14.62</b>	<b>9.90</b>
<b>Standard Deviation</b>			<b>1.875</b>	
<b>Correlation coefficient</b>			<b>0.961</b>	
<b>PE (r)</b>			<b>0.0231</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.1.4**  
**Equity Multiplier Ratio**



The Equity Multiplier in Fiscal Year 2007/08 is 15.24 times, in FY 2008/09 is 16.57 times which is increased by 8.73 percent, in FY 2009/10 16.01 times which is decreased by 3.50 percent, in FY 2010/11 is 12.73 times which is decreased by 25.77 percent and in FY 2011/12 is 12.53 times it is decreased by 1.60 percent. The average Equity Multiplier is 14.62 times. The standard deviation is 1.875, coefficient of correlation is 0.961 and probable error on correlation is 0.0231.

#### **4.3.1.5 Interest Coverage Ratio.**

The interest coverage ratio is calculated to analyze the debt capacity of the bank or to indicate the firm's ability to meet interest obligations. Interest coverage ratio is one of the most conventional coverage ratios which measures the relationship between what is normally available from operations of the firm and the claims of the outsiders' it is used to test firm's debt servicing capacity. It is determined by dividing operating profit by the fixed interest charges on debt.

Thus, interest coverage ratio (ICR) =  $EBIT / \text{interest}$

From the point of view of creditors the larger the coverage becomes the greater the ability of the firm to handle fixed charges and assurance of the payment of interest to the creditors. However, too high or low ratio will

unfavorable to the firms. High ratio implies that the firm is very conservative in using debt and low ratio implies that the firm is using excessive debt and doesn't have the ability offer assumed payment of interest to the creditors.

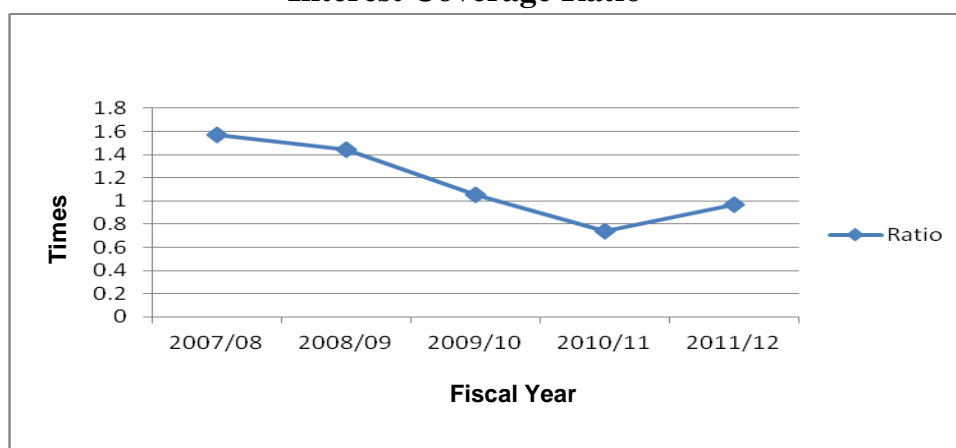
**Table No.: 4.3.1.5**  
**Interest Coverage Ratio**

*Amount in Million*

<b>Fiscal Years</b>	<b>EBIT</b>	<b>Interest</b>	<b>Ratio</b>
<b>2007/08</b>	1187	758	1.57
<b>2008/09</b>	1656	1153	1.44
<b>2009/10</b>	2063	1960	1.05
<b>2010/11</b>	2191	2955	0.74
<b>2011/12</b>	3061	3155	0.97
<b>Average</b>	<b>2031.60</b>	<b>1996.20</b>	<b>1.17</b>
<b>Standard Deviation</b>			<b>0.34</b>

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.1.5**  
**Interest Coverage Ratio**



The Interest Coverage Ratios of FY 2007/08, FY 2008/09, FY 2009/10, FY 2010/11 and FY 2011/12 are 1.57, 1.44, 1.05, 0.74 and 0.97 times respectively. The standard deviation is 0.34. The overall interest coverage ratio



of the Nabil bank limited is a bit small to cover the debt cost. At least the ratio should be more than one.

### 4.3.2 Profitability Ratios

Profitability is important measure of a company's operating success. There are two areas for judging profitability (1) relationships in the income statement that indicate a company's ability to recover the costs and expenses, (2) relationship of income to various balance sheet measures that indicate the company's relative ability to earn interest from the assets employed. The first measure is the profit margin and the second one is the return on investment.

#### 4.3.2.1 Net Profit Margin

Profit margin measure the relationship of net income and operating income. It can be calculated as follows:

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Operating Income}}$$

**Table No.: 4.3.2.1**  
**Net Profit Margin**

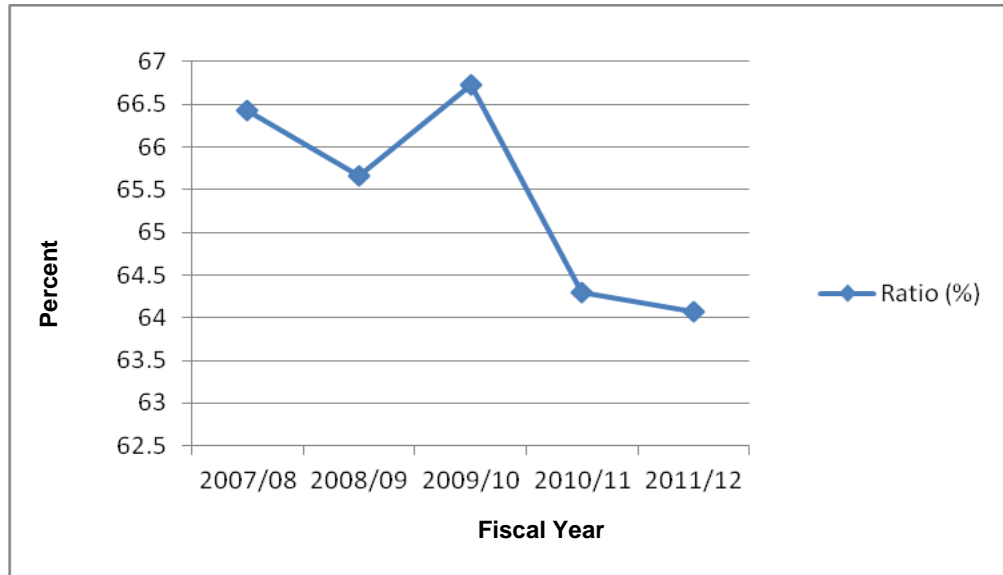
*Amount in Million*

<b>Fiscal Years</b>	<b>Net Income</b>	<b>Operating Income</b>	<b>Ratio (%)</b>	<b>Change %</b>
<b>2007/08</b>	7465	1123	664.74	-
<b>2008/09</b>	1031	1570	65.67	1.16
<b>2009/10</b>	1139	1707	66.73	1.61
<b>2010/11</b>	1338	2081	64.30	3.78
<b>2011/12</b>	1696	2647	64.07	0.36
<b>Average</b>	<b>1190</b>	<b>1825.60</b>	<b>185.10</b>	<b>1.73</b>
<b>Standard deviation</b>	<b>354.60</b>	<b>572.92</b>	<b>268.13</b>	
<b>Correlation coefficient</b>			<b>-0.6161</b>	
<b>PE (r)</b>			<b>0.1871</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.2.1**

**Net Profit Margin**



The Net Profit Margin in FY 2007/08 is 66.43 percent, in FY2008/09 is 65.67 percent which is decreased by 1.16 percent, in FY 2009/10 is 66.73 percent which is increased by 1.61 percent, in FY 2010/11 is 64.30 percent which is decreased by 3.78 percent and in FY 2011/12 is 64.07 percent, it is decreased by 0.36 percent. The average profit margin is 65.40 percent and average change rate is 1.73 percent. The standard deviation of net profit margin is 1.211. The correlation of coefficient is -0.6161 and probable error on correlation of coefficient is 0.1871.

**4.3.2.2 Return on Total Assets**

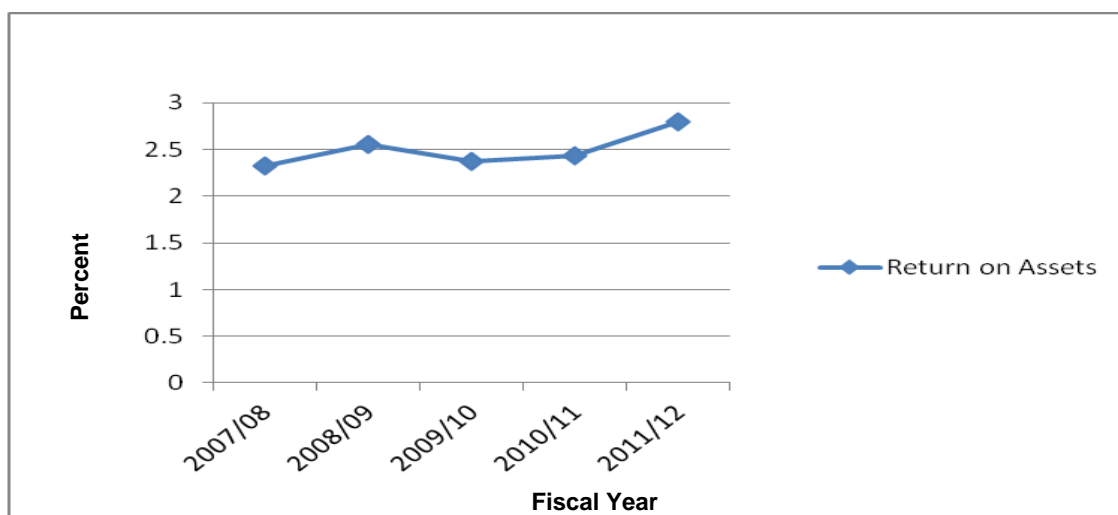
Return on total assets ratio measures the profitability of bank that explains a firm to earn satisfactory return on all financial resources invested in the bank's assets; otherwise its survivable is threatened. The ratio explains net income for each unit of assets. Higher ratio indicates efficiency in utilizing its overall resources and vice versa. Rate return on total assets is major tool to judge the operational efficiency of a bank. The return on total assets of selected banks is as follows: Total capital and liabilities are all items included in liabilities side of balance sheet. The following table shows the position of total capital and liabilities of Nabil Bank.

**Table No.: 4.3.2.2**  
**Return on Total Assets**

<b>Fiscal Years</b>	<b>Ratio</b>	<b>Change %</b>
<b>2007/08</b>	2.32	-
<b>2008/09</b>	2.55	9.91
<b>2009/10</b>	2.38	7.14
<b>2010/11</b>	2.43	2.10
<b>2011/12</b>	2.80	15.23
<b>Average</b>	<b>2.496</b>	
<b>Standard deviation</b>	<b>0.1898</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.2.2**  
**Return on Total Assets**



The ratio of Return on Total Assets is 2.32 percent, 2.55 percent, 2.38 percent, 2.43 percent and 2.80 percent for the FY 2007/08, 2008/09, 2009/10, 2010/11 and 2011/12 respectively. The smallest ratio is in FY 2007/08 i.e. 2.32 percent and largest ratio is in FY 2011/12 i.e. 2.80 percent. The average return on assets is 2.496 percent. The standard deviation is 0.1898.

### 4.3.2.3 Return on Shareholder's Equity

A return on shareholder's equity is the measure of productivity of shareholder's Fund. It carries the relationship of return on shareholder's equity. The shareholder's equity includes common share capital, preference share capital, reserve, and surplus. Management's objective is to generate the maximum return on shareholder's investment in the firm. ROE is therefore the best single measure of the company's success in fulfilling its goal. Thus, this ratio is of great interest and value to the present as well as the perspective shareholders and also the great concern to management, which has the responsibility of maximizing the owner's welfare. The ratio equals the net profit after taxes divided by the common stockholder's equity.

**Table No.: 4.3.2.3**  
**Return on Shareholder's Equity**

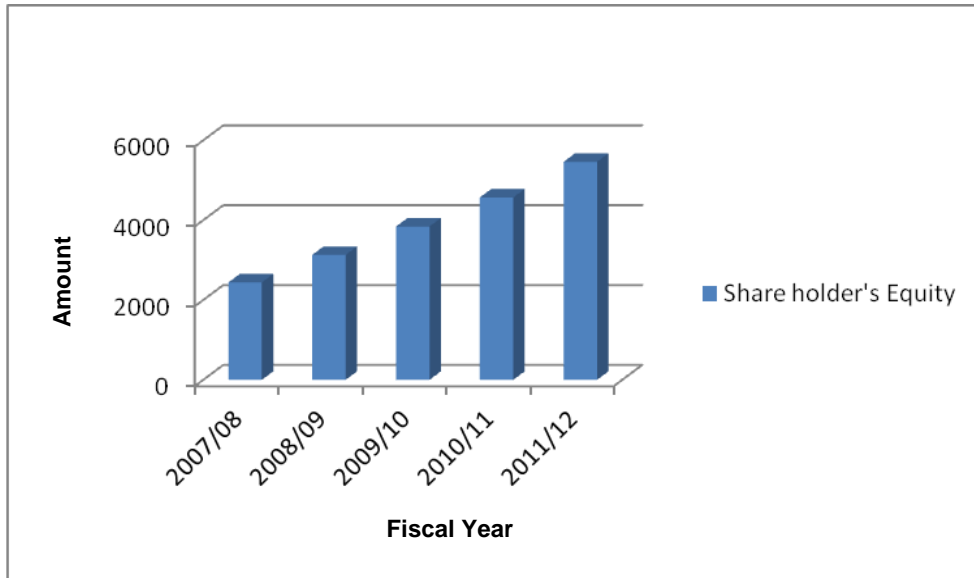
*Amount in Million*

<b>Fiscal Years</b>	<b>Share holder's Equity</b>	<b>Net Income</b>	<b>Ratio</b>	<b>Change %</b>
<b>2007/08</b>	2440	7465	305.94	-
<b>2008/09</b>	3129	1031	32.95	828.50
<b>2009/10</b>	3840	1139	29.66	11.09
<b>2010/11</b>	4567	1338	29.30	1.23
<b>2011/12</b>	5460	1696	31.06	6.00
<b>Average</b>	<b>3887.20</b>	<b>2533.80</b>	<b>85.782</b>	<b>211.705</b>
<b>Standard deviation</b>			<b>123.080</b>	
<b>Correlation coefficient</b>			<b>-0.6149</b>	
<b>PE (r)</b>			<b>0.1876</b>	

*Source: Annual Report of NABIL Bank*

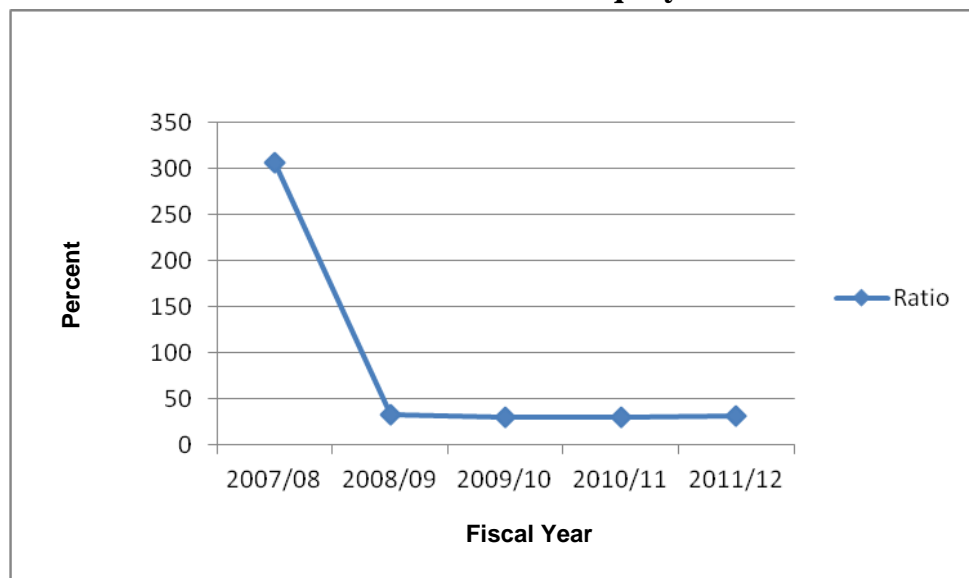
**Figure No.: 4.3.2.3.1**

**Shareholder's Equity**



**Figure No.: 4.3.2.3.2**

**Return on Shareholder's Equity**



The Shareholder's Equity is Rs. (in millions) 2440, 3129, 3840, 4567 and 5460 in the Fiscal Year 2007/08, 2008/09, 2009/10, 2010/11 and 2011/12 respectively. The average Shareholders' Equity during the five year period is 3887.20 millions. The average change rate is 211.705 percent.

The return on Shareholder's equity in the Fiscal Year 2007/08 is 305.94 percent, in 2008/09 is 32.95 percent, in 2009/10 is 29.66, in 2010/11 is 29.30 percent and in the Fiscal Year 2011/12 is 31.06 percent. The average return on shareholders' equity is 85.782 percent and standard deviation is 123.080. The correlation coefficient on net income and return on equity is -0.6149 and probable of error on correlation coefficient is 0.1876.

#### 4.3.2.4 Return on Total Deposits

**Table No.: 4.3.2.4**  
**Return on Total Deposit**

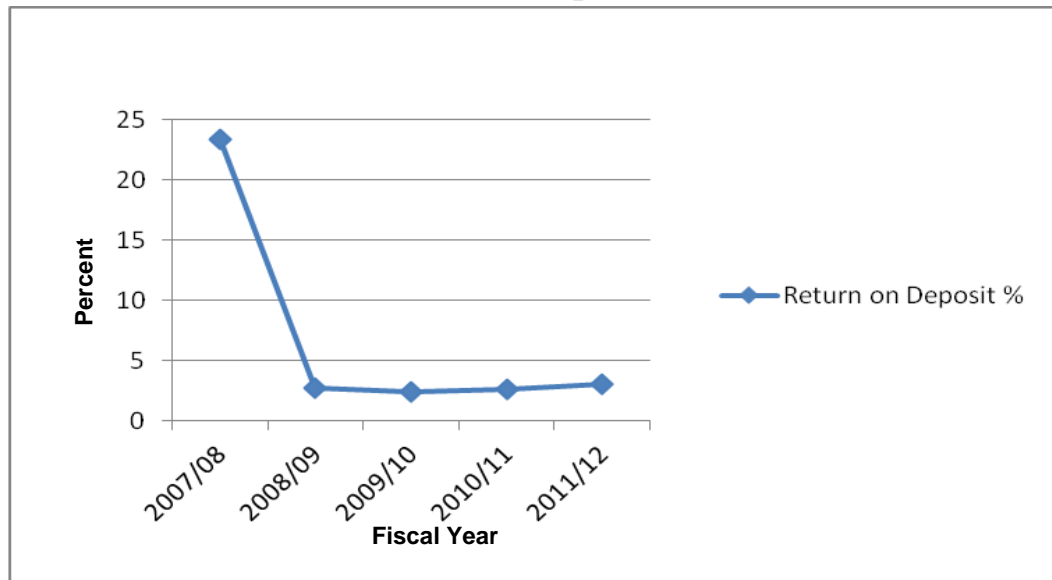
*Amount in Million*

<b>Fiscal Years</b>	<b>Net Income</b>	<b>Total Deposit</b>	<b>Ratio (%)</b>	<b>% Change</b>
<b>2007/08</b>	7465	31915	23.39	-
<b>2008/09</b>	1031	37348	2.76	747.46
<b>2009/10</b>	1139	46411	2.45	12.65
<b>2010/11</b>	1338	49696	2.69	9.79
<b>2011/12</b>	1696	55024	3.08	14.50
<b>Average</b>	<b>2533.80</b>	<b>44079</b>	<b>6.88</b>	<b>196.10</b>
<b>Standard deviation</b>			<b>9.235</b>	
<b>Correlation coefficient</b>			<b>-0.6662</b>	
<b>PE (r)</b>			<b>0.1678</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.2.4**

**Return on Total Deposit**



The return on Total Deposit in the Fiscal Year 2007/08 is 23.39 percent, in 2008/09 is 2.76 percent; it is decreased by 747.46 percent, in 2009/10 is 2.45 percent which is decreased by 12.65 percent, in 2010/11 is 2.69 percent, it is increased by 9.79 percent and in 2011/12 is 3.08 percent which is increased by 14.50 percent. During the five year period it is found that return is decreasing because deposit is increasing in higher ratio than Net income. Average return on Total deposit is 6.88 percent. The standard deviation is 9.235. The correlation coefficient is -0.6662 and probable of error on correlation coefficient is 0.1678.

**4.3.3 Interest Margin Analysis**

Net interest margin measure the profitability of commercial bank. It is another most popular tool of profitability measurement. It can be calculated as follow:

$$\text{Net Interest Margin} = \frac{\text{Net Interest Income}}{\text{Interest Earning Assets}}$$

(Interest Earning Assets= Loans+ Investment)

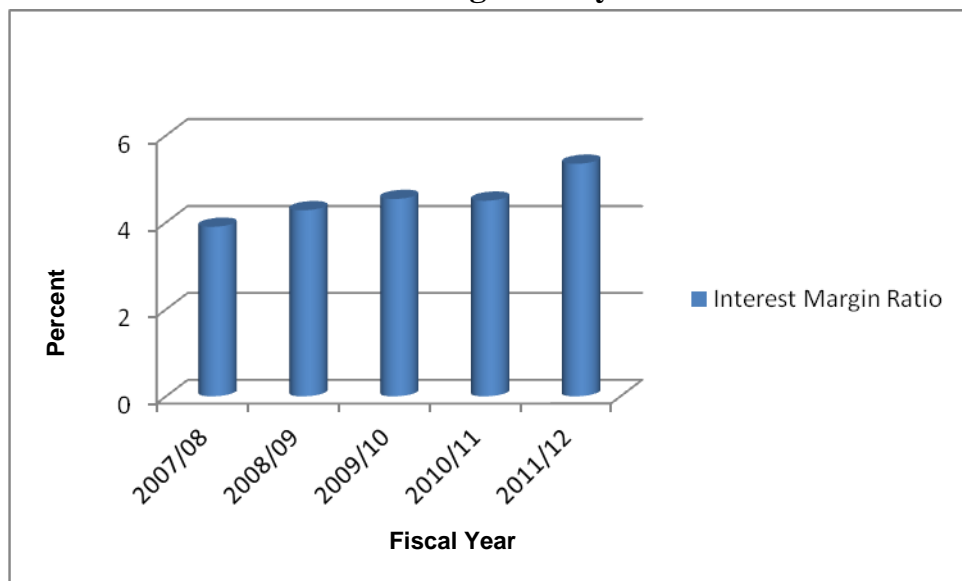
**Table No.: 4.3.3**  
**Interest Margin Analysis**

*Amount in Million*

<b>Fiscal Years</b>	<b>Net Int. Earning</b>	<b>Int. Earning Assets</b>	<b>Ratio (%)</b>	<b>% Change</b>
<b>2007/08</b>	1220	31305	3.90	-
<b>2008/09</b>	1645	38416	4.28	9.74
<b>2009/10</b>	2088	45972	4.54	6.07
<b>2010/11</b>	2299	51115	4.50	0.89
<b>2011/12</b>	2978	55662	5.35	18.89
<b>Average</b>	<b>2046</b>	<b>5562</b>	<b>4.51</b>	<b>8.90</b>
<b>Standard deviation</b>	<b>666.61</b>	<b>9767.78</b>	<b>0.53</b>	
<b>Correlation coefficient</b>			<b>0.9782</b>	
<b>PE (r)</b>			<b>0.0130</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.3.4**  
**Interest Margin Analysis**





Interest margin ratio in the Fiscal Year 2007/08 is 3.90 percent. In the FY 2008/09 is 4.28 percent which is increased by 9.74 percent, in FY 2009/10 is 4.54 percent which is increased by 6.07 percent, in the FY 2010/11 is 4.50 percent which is decreased by 0.89 percent and in the FY 2011/12 is 5.35 percent and it is increased by 18.89 percent. The average interest margin ratio is 4.51 percent. The standard deviation is 0.53. The correlation of coefficient is 0.9782 and probable error on correlation coefficient is 0.0130.

#### 4.3.4 Market Related Ratios

These ratios show the banks performance in summary. By these ratios we can easily know the banks' position and compare the various banks each other. So that we can make buying and selling decision of the banks share.

**Table No.: 4.3.4**  
**Common share information**

<b>Particulars</b>	<b>07/08</b>	<b>08/09</b>	<b>09/10</b>	<b>10/11</b>	<b>11/12</b>
EPS(Rs.)	115.86	113.44	83.81	70.67	83.57
Return on Equity (%)	29.35	33.93	30.27	29.02	30.25
No. of Share outstanding (Thousand)	6443	9089	13591	18930	20298
Market capitalization (Rs. Millions)	33987	47944	32401	23700	27504

*Source: Annual Report of NABIL Bank*

##### 4.3.4.1 Earning Per Share (EPS)

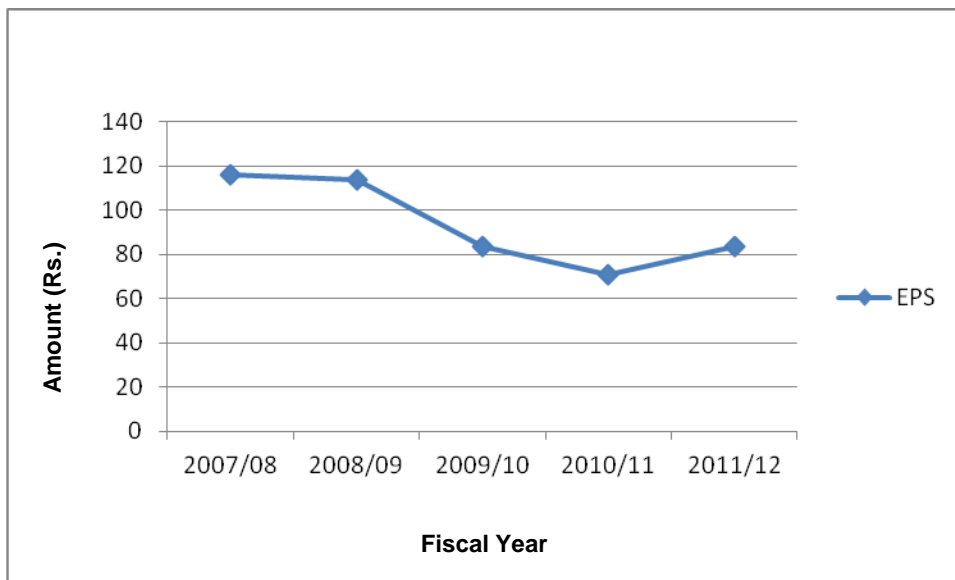
Earning Per share shows the profitability of the firm on a per share basis; it does not reflect how much is paid as dividend and how much is retained in the business. EPS is one of the most widely used measures of the bank's performance. It is an important index of the bank's performance and the investors rely heavily on it for their investment decisions. In order to see the strength of the share in the share in the market, EPS of this bank are calculated as below:

**Table No.: 4.3.4.1  
Earning Per Share**

<b>Fiscal Years</b>	<b>EPS (Rs.)</b>	<b>Change %</b>
<b>2007/08</b>	115.86	-
<b>2008/09</b>	113.44	2.13
<b>2009/10</b>	83.81	35.35
<b>2010/11</b>	70.67	18.59
<b>2011/12</b>	83.57	18.25
<b>Average</b>	<b>93.47</b>	<b>18.58</b>
<b>Standard deviation</b>	<b>20.07</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.4.1  
Earning Per Share**



Earning Per Share is one of the market related ratio which is computed to know the market performance of the bank. The EPS of Nabil bank is Rs. 115.86, Rs.113.44, Rs. 83.81, Rs. 7067 and Rs. 83.57 in the Fiscal Year 2007/08, 2008/09, 2009/10, 2010/11 and 2011/12 respectively. The average EPS is Rs. 93.47. The standard deviation is 20.07. The annual change rate of EPS is

decreased by 2.13 percent from 2007/08 to 2008/09, decreased by 35.35 percent from 2008/09 to 2009/10, decreased by 18.59 percent from 2009/10 to 2010/11 and increased by 18.25 percent from the Fiscal Year 2010/11 to 2011/12. The average change rate is 18.58 percent.

#### 4.3.4.2 Market Value per Share (MVPS)

**Table No.: 4.3.4.2**

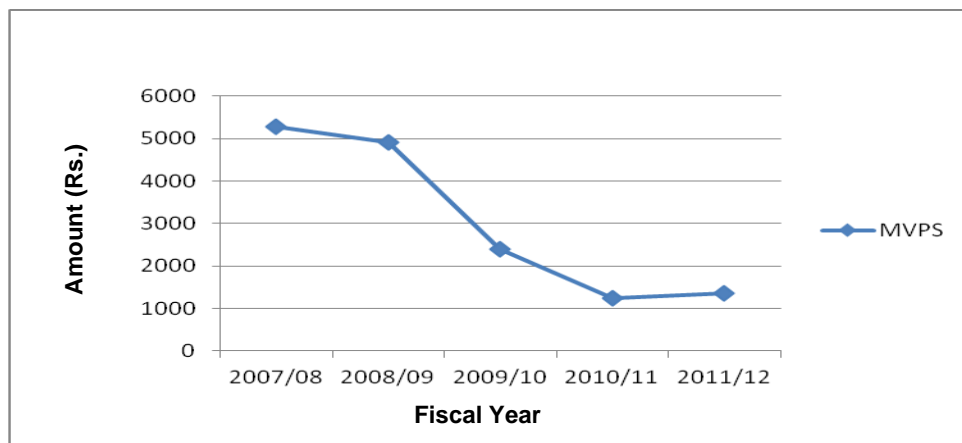
#### **Market Value per Share**

<b>Fiscal Years</b>	<b>MVPS</b>	<b>Change %</b>
<b>2007/08</b>	5275	-
<b>2008/09</b>	4899	7.67
<b>2009/10</b>	2384	105.07
<b>2010/11</b>	1252	90.42
<b>2011/12</b>	1355	0.24
<b>Average</b>	<b>3033</b>	<b>50.85</b>
<b>Standard deviation</b>	<b>1931.15</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.4.2**

#### **Market Value per Share**



The market value of Nabil Bank is Rs. 5275, Rs. 4899, Rs. 2384, Rs. 1252 and Rs. 1355 for the Fiscal Years 2007/08, 2008/09, 2009/10, 2010/11

and 2011/12 respectively. The average MVPS is Rs. 3033. The market value per share is decreased by 7.67 percent from 2007/08 to 2008/09, decreased by 105.07 from 2008/09 to 2009/10, decreased by 90.42 percent from 2009/10 to 2010/11 and increased by 0.24 percent from 2010/11 to 2011/12. The average change rate is 50.85 percent. The standard deviation is 1931.15.

#### 4.3.4.3 Equity Market Capitalization Analysis

**Table No.: 4.3.4.3**

#### **Equity Market Capitalization Analysis**

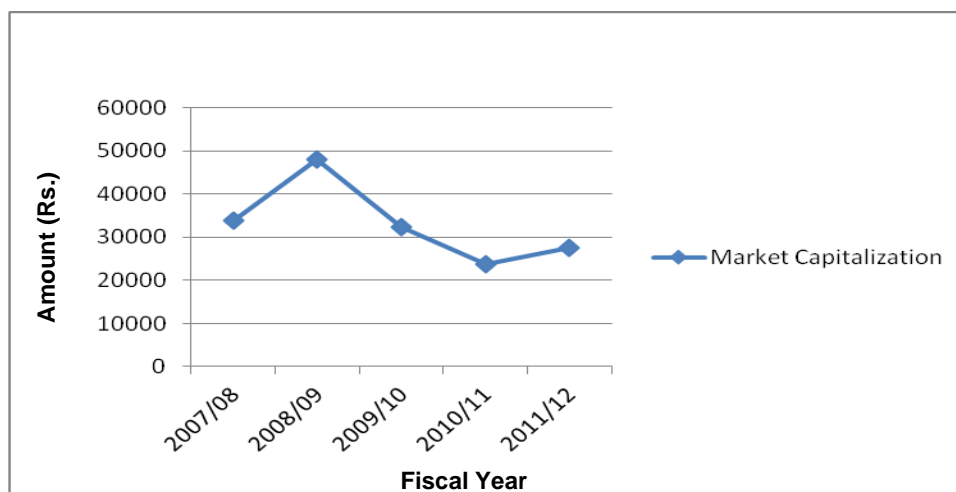
*Amount in Million*

<b>Fiscal Years</b>	<b>Market Capitalization</b>	<b>Change %</b>
<b>2007/08</b>	33987	-
<b>2008/09</b>	47944	41.07
<b>2009/10</b>	32401	47.97
<b>2010/11</b>	23700	36.71
<b>2011/12</b>	27504	16.05
<b>Average</b>	<b>33107</b>	<b>35.45</b>
<b>Standard deviation</b>	<b>9237.081</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.4.3**

#### **Equity Market Capitalization Analysis**



The equity market capitalization in the Fiscal Year 2007/08 is Rs. 33987 million, in FY 2008/09 is Rs. 47944 million which is increased by 41.07 percent. In the Fiscal Year 2009/10 is Rs. 32401 million which is decreased by 47.97 percent. In the Fiscal Year 2010/11 is Rs. 23700 million which is decreased by 36.71 percent and in the Fiscal Year 2011/12 is 27504 million which is increased by 16.05 percent. The average equity market capitalization of Nabil Bank is Rs. 33107 million, average change rate is 35.45 percent and standard deviation is 9237.081.

#### 4.3.4.4 Retention Ratio (1 - DPR)

**Table No.: 4.3.4.4**

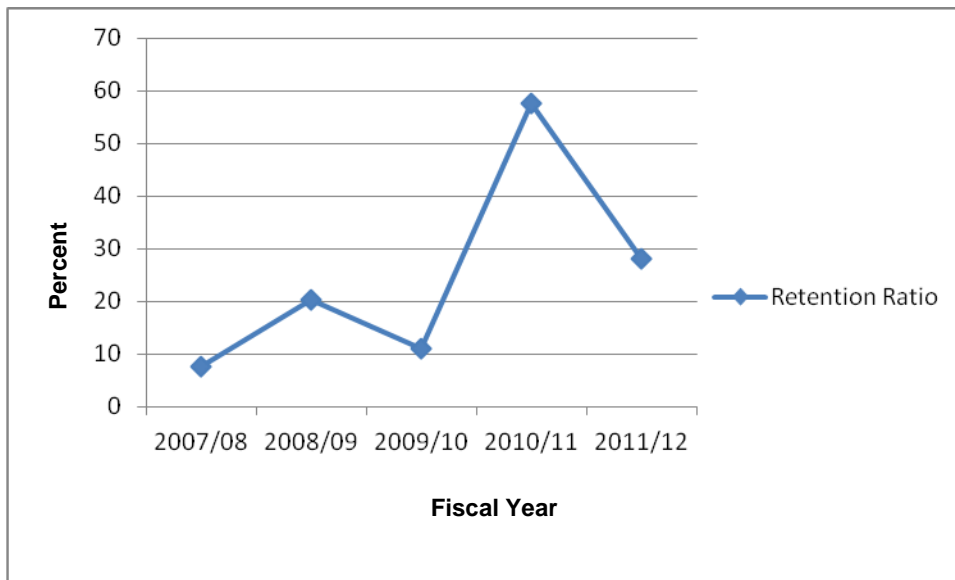
#### **Retention Ratio**

<b>Fiscal Years</b>	<b>Retention Ratio</b>	<b>Change %</b>
<b>2007/08</b>	7.67	-
<b>2008/09</b>	20.38	165.71
<b>2009/10</b>	10.95	86.12
<b>2010/11</b>	57.55	425.57
<b>2011/12</b>	28.20	104.08
<b>Average</b>	<b>24.95</b>	<b>195.37</b>
<b>Standard deviation</b>	<b>19.93</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.4.4**

**Retention Ratio**



The Retention ratio of Nabil Bank is 7.67 percent, 20.38 percent, 10.95 percent, 57.55 percent and 28.20 percent for the Fiscal Year 2007/08, 2008/09, 2009/10, 2010/11 and 2011/12 respectively. The average retention ratio is 24.95 and standard deviation is 19.93. The annual change rate of retention ratio throughout the five years period is 195.37 percent.

**4.3.4.5 Price Earning Ratio**

Price Earning Ratio measures investor expectations and the market appraisal of the performance of a firm. Price Earning ratio reflects the price currently being paid by the market for the each rupees of currently reported EPS. In other words, It is an indication of the way investors think that the banks would perform better in the future. Higher market price suggest that investor expect earning to grow and this gives a high P/E implies that investor feel that earning are not likely to rise. Price earning ratio is calculated as below:

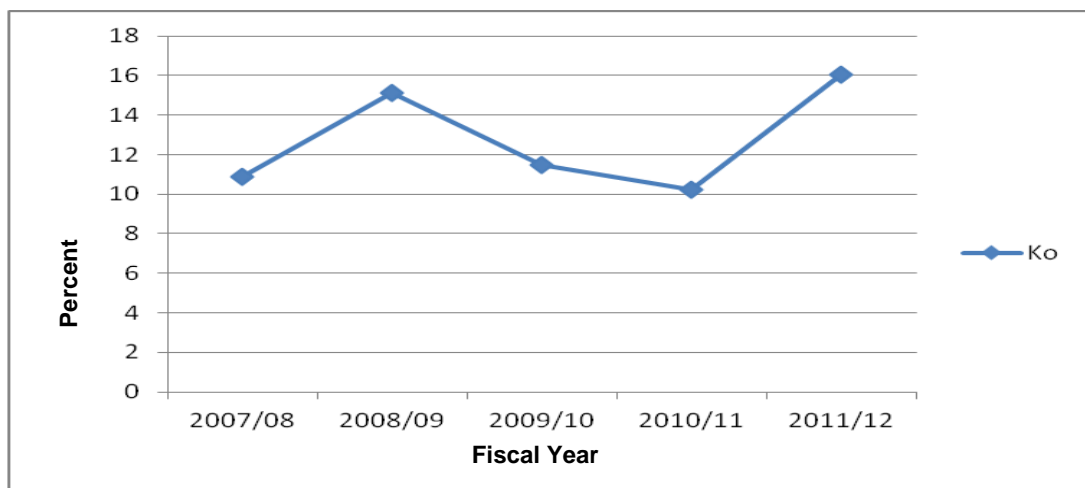
$$\text{Price Earning Ratio} = \frac{\text{Market price per share}}{\text{Earning per share}}$$

**Table No.: 4.3.4.5**  
**Price Earning Ratio**

<b>Fiscal Years</b>	<b>Price Earning Ratio</b>	<b>Change %</b>
<b>2007/08</b>	45.53	-
<b>2008/09</b>	43.19	4.95
<b>2009/10</b>	28.45	51.81
<b>2010/11</b>	17.72	6.06
<b>2011/12</b>	16.21	9.32
<b>Average</b>	<b>30.22</b>	
<b>Standard deviation</b>	<b>13.76844</b>	

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.4.5**  
**Price Earning Ratio**



The Price Earning Ratio is 45.53 time, 43.19 time, 28.45 time, 17.72 time and 16.21 time for the Fiscal Year 2007/08, 2008/09, 2009/10, 2010/11 and 2011/12. The average Price Earning Ratio is 30.22 time. The Price Earning Ratio is in decreasing trend. It is changed by 4.95 percent in the FY 2008/09, by 51.81 percent in 2009/10, by 6.06 percent in 2011/12 and changed by 9.32 percent in the Fiscal Year 2011/12. The standard deviation of Price Earning Ratio is 13.76844.

### 4.3.5 Analysis of Capital Structure

The analysis of capital structure is a concept of vital importance for this study. Here, capital structure adequacy on risk weighted assets and both NI and NOI approach are considered to analyze the capital structure of the overall capitalization.

#### 4.3.5.1 Net Income Approach (Overall Capitalization Rate - $K_0$ )

The total market value of firm is simply obtained by adding the market value of debt to the market value of equity.

$$\text{Overall Capitalization Rate } (K_0) = \frac{EBIT}{V}$$

Where,

[Value of Firm (V) = Market value of Debt + Market Value of Equity]

**Table No.: 4.3.5.1**  
**Overall Capitalization Rate**

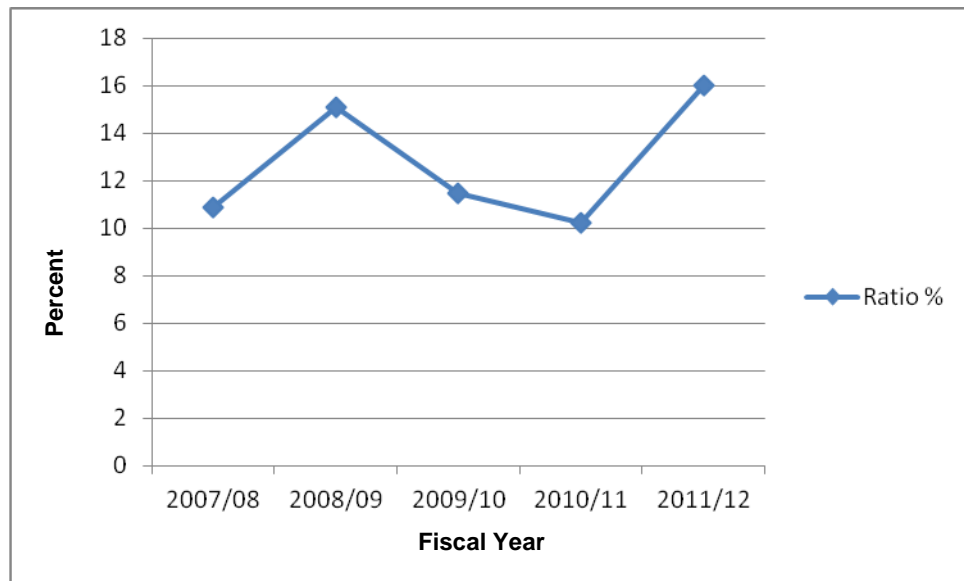
*Amount in Million*

<b>Fiscal Years</b>	<b>EBIT</b>	<b>Value of Firm</b>	<b>Ratio %</b>
<b>2007/08</b>	1187	10901.1	10.89
<b>2008/09</b>	1656	10957.7	15.11
<b>2009/10</b>	2063	17968.1	11.48
<b>2010/11</b>	2191	21407.8	10.23
<b>2011/12</b>	3061	19089.9	16.03
<b>Average</b>	<b>2031.60</b>	<b>16064.90</b>	<b>12.748</b>
<b>Standard deviation</b>			<b>2.6339</b>

*Source: Annual Report of NABIL Bank*



**Figure No.: 4.3.5.1**  
**Overall Capitalization Rate**



According to Net Income approach the overall capitalization rate ( $K_o$ ) in FY 2007/08 is 10.89 percent, in FY 2008/09 is 15.11 percent, in FY 2009/10 11.48 percent, in FY 2010/11 is 10.23 percent and in FY 2011/12 is 16.03 percent. The average overall capitalization rate is 12.748 percent and standard deviation is 2.6339.

#### **4.3.5.2 Net Operating Income (NOI) Approach (Equity Capitalization Rate – $K_e$ )**

The net operating income approach focus on the equity capitalization rate and appears as irrelevancy theory of capital structure, as already explained in detail in Chapter II. According to this approach, overall capitalization rate,  $K_o$  as well as the debt capitalization rate,  $K_d$  is independent of degree of leverage. However, the equity capitalization rate,  $K_e$ , increase linearly with financial leverage. Equity capitalization rate is obtained simply dividing the earning per share by market value per share. Thus, under net operating income approach, the equity capitalization is computed as follows:

$$\text{Equity Capitalization Rate } (K_e) = \frac{EPS}{MVPS}$$

**Table No.: 4.3.5.2**

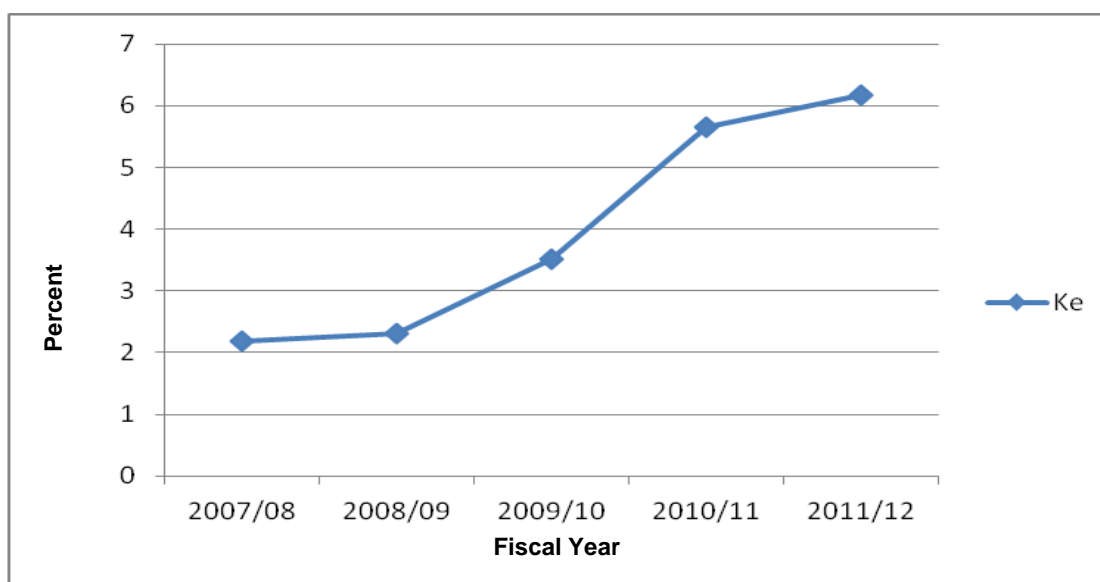
**Equity Capitalization Rate**

<b>Fiscal Years</b>	<b>EPS(Rs.)</b>	<b>MVPS(Rs.)</b>	<b>Ratio %</b>
<b>2007/08</b>	115.86	5275	2.10
<b>2008/09</b>	113.44	4899	2.31
<b>2009/10</b>	83.81	2384	3.52
<b>2010/11</b>	70.67	1252	5.64
<b>2011/12</b>	83.57	1355	6.17
<b>Average</b>	<b>93.47</b>	<b>3033</b>	<b>4</b>
<b>Standard deviation</b>			<b>1.852</b>

*Source: Annual Report of NABIL Bank*

**Figure No.: 4.3.5.2**

**Equity Capitalization Rate**



According to Net Operating Income approach the Equity Capitalization rate in FY 2007/08 is 2.10 percent, in FY 2008/09 is 2.31 percent, in FY 2009/10 is 3.52 percent, in FY 2010/11 is 5.64 percent and in FY 2011/12 is 6.17 percent. The average Equity Capitalization Rate is 4.00 percent and standard deviation is 1.852.

## 4.4 Statistical Analysis

### 4.4.1 Correlation coefficient analysis

Two variables are said to have “Correlation” when they are so related that the change in the value of one variable is accomplished by the change in the value of the other. The measure of correlation is called correlation coefficient summarized in one figure, the degree and direction of movement. But the important things that is to be noted here is that correlation analysis only helps in determining the extent to which the two variables are considered but does not tell us about cause and effect relationship. Though, there is a high degree of correlation between two variables one cannot say which one is the cause and which one is the effect.

**Table No.: 4.4.1**

#### **Analysis of Correlation Coefficient**

S.N.	Particulars	r	r <sup>2</sup>	PE(r)	6xPE(r)	Level of Significance
1	Core Capital & Suppl. Capital	-0.468	0.2190	0.236	1.413	Not Significant
2	Total Assets & Total Debt	0.990	0.9801	0.006	0.036	Significant
3	Equity Capital & Debt Capital	0.964	0.929	0.0055	0.0330	Significant
4	Total Assets & Total Equity	0.961	0.923	0.0231	0.1386	Significant
5	Net Income & Operating Income	-0.6161	0.379	0.1871	1.1226	Not Significant
6	Shareholders' Equity & Net Income	-0.6149	0.3781	0.1876	1.1255	Not significant
7	Net Income & Total Deposit	-0.6662	0.4438	0.1678	1.0066	Not significant
8	Net Interest Earning & Interest Earning Assets	0.9782	0.9569	0.0130	0.0780	Significant

#### **4.4.1.1 Coefficient of Correlation between Core Capital and Supplementary Capital**

The correlation coefficient between Core capital and Supplementary Capital is -0.468. Coefficient of correlation determination ( $r^2$ ) is 0.2190. Whose

PE and 6PEr is 0.236 and 1.413 respectively. Correlation of coefficient (r) is < 6PE, so its level of significant is negative i.e. Not significant.

#### **4.4.1.2 Coefficient of Correlation between Total Assets and Total Debt**

The correlation of coefficient between Total Assets and Total Debt is 0.990. Coefficient of correlation determination ( $r^2$ ) is 0.9801, whose PE is 0.006 and 6xPE is 0.036. Correlation of coefficient (r) is > PE and 6xPE both so its level of significant is positive i.e. Significant.

#### **4.4.1.3 Coefficient of Correlation between Equity Capital and Debt Capital**

The correlation of coefficient between Equity Capital and Debt Capital is 0.964. Correlation of coefficient determination ( $r^2$ ) is 0.929. PE and 6xPE is 0.0055 and 0.0330 respectively. The correlation coefficient (r) is > 6xPE so its level of significant is positive. i.e. Significant.

#### **4.4.1.4 Coefficient of Correlation between Total Assets and Total Equity**

The correlation coefficient between Total Assets and Total Equity is 0.961. Coefficient of correlation determination ( $r^2$ ) is 0.923. PE and 6xPE is 0.0231 and 0.1386 respectively. The correlation coefficient (r) is > 6xPE so its significant level is positive i.e. Significant. When the bank increases the equity then Total Assets will also increases or vice-versa.

#### **4.4.1.5. Coefficient of Correlation between Net Income & Operating Income**

The correlation of coefficient between Total Assets and Total Equity is -0.6161. Coefficient correlation of determination ( $r^2$ ) is 0.379. PE and 6xPE is 0.1871 and 1.1226 respectively. The correlation of coefficient (r) is < 6xPE means negative i.e. Insignificant.

#### **4.4.1.6 Coefficient of Correlation between Shareholder's Equity & Net Income**

The coefficient of correlation between Shareholder's Equity and Net Income is -0.6149. Coefficient of correlation determination ( $r^2$ ) is 0.3781. PE

and 6xPE is 0.1876 and 1.1225 respectively. The coefficient of correlation (r) is less than 6xPE which is Insignificant. When the bank increases shareholders' equity, the Net income will also increase or vice-versa.

#### **4.4.1.7 Coefficient of Correlation between Net Income and Total Deposit**

The coefficient of correlation between Net Income and Total Deposit is -0.6662. Coefficient of correlation determination ( $r^2$ ) is 0.4438. PE and 6xPE is 0.1678 and 1.0066 respectively. The coefficient of correlation (r) is < 6xPE which is Insignificant. If the deposit is decreased then Net income will increase or vice-versa.

#### **4.4.1.8 Coefficient of Correlation between Net Interest Earning and Interest Earning Assets**

The coefficient of correlation between Net Interest Earning and Interest Earning Assets is 0.9782. Coefficient of correlation determination ( $r^2$ ) is 0.9569. PE and 6xPE is 0.0130 and 0.0780 respectively. The coefficient of correlation (r) is > 6xPE whose level of significant is positive i.e. Significant.

### **4.5 Major Findings of the Study**

- 1) The Bank has increased authorized capital from 1600 million to 2100 million in the Fiscal Year 2011/12 and increases its Issue capital but since last three years it is remaining constant. The bank has Paid capital of Rs. 2030 million.
- 2) The bank has maintained the ratio of Paid up capital in 7:3 between Promoters and Public shareholders upto Fiscal Year 2008/09 but since last three years period (i.e. 2009/10 to 2011/12) it is found that the bank has maintained proportion of ownership in 50:50 in between promoters and public shareholder.
- 3) The bank collects capital from different sources like Deposits, Borrowings, Shareholders' equity, debenture and others sources. The bank collects maximum fund from Deposits.

- 4) The bank has various schemes on deposit: Current Deposits, Savings, Fixed Deposits, Call Deposits and Other Deposits. The bank uses maximum fund from Savings, Fixed deposits, called deposits, current deposits and others deposits respectively.
- 5) The proportion of share capital is in increasing trend. The average proportion of shares capital to total liabilities is 3.34 percent.
- 6) The Reserve and Surplus is in increasing trend. Its proportion with the total liabilities is also increasing. The average proportion of Reserve and Surplus is 4.30 percent. The highest Reserve and Surplus is in Fiscal Year 2011/12.
- 7) The Borrowing and its proportion with the total liabilities is highly fluctuated. The average proportion of Borrowing is 2.64 percent. The highest proportion of Borrowing with the total liabilities is in is 4.31 percent in the FY 2008/09.
- 8) The proportion of Bills payable is in fluctuating trend. The average proportion of Bills payable is 0.39 percent. The highest Bills payable is in the FY 2008/09.
- 9) The Bank has issued Debenture 2075B.S. at 8.5% p.a. at par value 1000. This Debenture will mature in 2075B.S. The bank is collecting the fund by issuing the debenture of Rs. 300 millions every year except in FY 2007/09.
- 10) The average Debt Ratio is 94 percent which indicates the ratio of debt on assets.
- 11) Credit to Deposit Ratio is an important ratio which measures the efficiency of credit creation through the investment of fund received by the customer. The average credit to deposit ratio is 73.884 percent which good for a commercial bank.
- 12) The equity multiplier ratio is amount of assets for each amount of equity. It is the relationship between total assets and equity. The average equity multiplier is 14.62 times. This ratio is in decreasing trend.

- 13) Profit margin measure the relationship of net income and operating income. The average profit margin is 65.40 percent. This ratio is in decreasing trend.
- 14) The Return on Shareholders' equity is in increasing trend. The average return on shareholders' equity during five years studying period is 85.782 percent.
- 15) The EPS is in decreasing trend. The average EPS Rs. 93.47 during five years studying period. The higher EPS is in FY. 2007/08 i.e. Rs. 115.86 and lowest EPS is in FY 2010/11 i.e. Rs. 70.67.
- 16) MVPS is in decreasing trend. The average MVPS during five years' studying period is Rs. 3033. The highest MVPS is in FY 2007/08 i.e. Rs. 5275 and lowest MVPS is in FY 2010/11 i.e. Rs. 1252.
- 17) Price earning ratio reflects the price currently being paid by the market for each rupee of currently reported EPS. The highest price earning ratio is 45.52 which is in FY 2007/08 and the lowest price earning ratio is in FY 2011/12 i.e. 16.21. The average price earning ratio is 30.22. The overall price earning ratio is in fluctuating trend during the five year studying period.
- 18) According to Net Income approach, the average overall capitalization rate  $K_o$  is 12.748 percent. During the five year studying period the highest overall capitalization rate is 16.03 percent in the FY 2011/12 and lowest overall capitalization rate is 10.23 percent which is in FY 2010/11. The standard deviation is 2.6339. The overall capitalization is in fluctuating trend.
- 19) According to net operating income approach the average equity capitalization rate  $K_e$  is 4.00 percent. The highest equity capitalization rate is 6.17 percent in FY 2011/12 and lowest is in Fy 2007/08 i.e. 2.10 percent. The standard deviation is 1.852.

# **CHAPTER - V**

## **SUMMARY CONCLUSION AND RECOMMENDATION**

### **Summary**

Capital structure is the combination or composition of the long-term debt, preferred stock and common stock. Managers may use capital structure changes to convey information about the profitability and risk of the firm. This concluding chapter deals with the findings in a logical and rational manner to the problems of research within the framework stated in introduction chapter. The relevance of the related ratios to the capital structure and their contribution to analysis are described in this chapter. Similarly, this chapter is also related with the findings and conclusions derived from the study of the selected joint venture bank in Nepal. This chapter is the composition of three sections firstly, the summary of the study; secondly, conclusion of the study; and lastly, some practical recommendations are suggested to help to solve the problems observed on the basis of finding.

The study is concerned about the capital structure of Nabil bank. Capital structure is influenced by various factors, but this study excludes those factors. For our convenience, annual data has been taken which becomes easy for us to perform the study.

The first chapter consists of framework of the study as well as profile of selected bank. Similarly, second chapter is good review of the issues related with abstracts of capital structure. The possible valid uses of ratios and mechanism, financial and statistical tools and techniques are briefly reviewed in chapter three- research methodology. Lastly, fourth chapter consists of analytical framework of data and finding that is considered as the important part revealing the performance of selected bank.

### **Conclusions**

This study particularly deals with conclusion about “Analysis of capital structure of Nabil bank”. The analysis of capital structure is very significant in



project appraisal of the stiff competition. Thus, this study is mainly an endeavour to confer general account of joint venture banks in terms of ratios related with capital structure on the basis of financial statement.

- 1) Many joint venture banks are operating in Nepal as commercial and merchant banks. The growth is still going on as so many new banks are coming into existence after this study. So joint venture banks are operating with higher technology and new efficient methods in banking sector. But this study has been undertaken only one bank to examine and evaluate the financial data. Besides, latest financial statements of five years from 2007/08 to 2011/12 have been conferred for the purpose of the study. The following conclusions may be in a nutshell:
- 2) The average ROE of the Nabil Bank is 85.782%. The ROE ratio has a great impact to show the relative performance and strength of the bank in attractive future investment. Hence the bank has been able to utilize the shareholder's equity in efficient way.
- 3) The ICR shows that bank is able in paying interest. The bank is operating efficiently in terms of ICR.
- 4) Earning per share should be in increasing trend. Continuous progress in EPS will prosper the firm in share market. I think dividend per share is also optimum. Because in crises condition more reserve are needed than in past. Market value of the firm is not satisfactory.
- 5) The NI approach implies that proportion of higher leverage consequently increases the value of the firm. This approach is well acquainted with this study as the value of the banks has increased in accordance to the increasing portion of leverage.
- 6) It is found that the total capital and liabilities is increased. Deposit is the highest, amount of the bank. Among the various deposits: Savings deposit is the highest contribution in deposit, then Fixed deposit, Call deposit, current deposit and other deposits respectively. This suggests the deposit is the main concern to the capital structure: it affects an investment policy. If the bank can increase more fixed deposit as a long

term debt investment became more possible and bank becomes more successful and competent as per its capacity to collect the fixed deposit. So, fixed deposit should be collected more as can as possible.

In short, the banking sector in Nepal is somehow doing well even though it has to face a number of hurdles during the past few years. In general, these banks are performing well in their own criteria.

### **Recommendations and Suggestions**

The bank's performance can be seen by various ways. Different analysis gives different recommendation and suggestion to the bank. On the basis of above analysis and descriptions, the following recommendations and suggestions have been made for this organization.

- 1) Deposit is major liabilities to the capital structure. So, the increasing trend of deposit is good sign for bank. Deposit is effects on investment policy too. In future also the bank should operate different programmers to attract people to save money in this bank, because deposit of general public, is the main business of the bank.
- 2) The capital structure of Nabil bank is highly leveraged. The proportion of debt and equity capital should be decided keeping in mind the efforts of tax advantage and financial distress. The banks, when it is difficult to pay interest and principal, ultimately lead to liquidation or bankruptcy. For such, the banks should reduce the high use of debt capital.
- 3) Some Return Ratios like- return on total assets, return on shareholder's equity and return on total deposits are not satisfactory in the selected bank. Having geared up capital structure position and insufficient returns indicates the weak aspect of the banks. The bank is suggested to use the resources into most profitable sector and be more concerned to get better return and be careful about their financial condition so that their returns would not be depressed anymore.

- 4) It is visible that Joint venture bank is playing significant role in the modern banking system to uplift the economical development of the nation but they are not playing merchant banking role. Hence, the bank is suggested to play the role of financial intermediary and merchant banking like underwriting of securities, brokers development of capital market and supportive role to the security exchange center which consequently be helpful for the upliftment of nation.
- 5) Nepalese shareholders are very much concerned about the payment of cash dividend by the joint venture banks rather than their financial statement. As such, banks are suggested to pay cash dividend consistently. Dividend payout ratio should be determined considering the shareholder's expectation and the growth requirements of the banks. A higher payout attracts both the existing and potential investors leading to increase in market price of share, which consequently leads to the strengthened financing capability. Hence, the bank is recommended to maintain consistent dividend policy

In brief, we can conclude that the bank performing well. The whole economy of the country is in slack. So, to get rid of the crises, effort of single bank is not sufficient. Nevertheless, Nabil bank should open all the doors to make it more competent. Especially it should invest properly and profit should be generated more than in past. The study's main demand is to invest in well manner and increase profit or continue to well performing.

Even though, there is top competition in this industry and the country's whole economy is down streaming, this bank is rated as a successful bank and running well among two dozen competitors. It does not need other sources of fund. It is satisfactory symbol for all the stakeholders of the bank. Today Nabil bank is in unique position in the banking industry in Nepal. The bank has a mission and drive to be the "bank of first choice" of all stakeholders', customers, shareholders, regulators, communities and staff.

## BIBLIOGRAPHY

- Abrol, P. N and Gupta, O. P (2002), **Commercial Dictionary**, New Delhi: Anomol publications.
- Adhikari, M (1998). **Capital structure effect on average cost of capital**, Nepal Rastra bank, 37<sup>th</sup> anniversary
- American Institute of banking ;( 1972). **Principle of banking operation**, USA; a/c
- Annual reports of **Nabil Bank Limited**, 2007/08-2011/12.
- Aryal, R.R (1991). **An evaluation of capital structure of bottler's Nepal Pvt. Ltd.**, Unpublished master's thesis, central department of management
- Bajracharaya, B.C; (2060) "**Basic Statistics**", M.K publishers
- Banking and financial institution ordinance 2061
- Barges, Alexander, (1983) "*The effect of capital structure on the cost of capital*", prantice, hall of India
- Botton, Steven E. and JOHN, Robert L; (1981) "*Essentials of Managerial Finance, Principles and Practices*", houghleton Milton Co.
- Baral, K.J. (1994). **Capital structure and cost of capital in public enterprises in Nepal**. Unpublished Ph.D. thesis, university of Delhi
- Commercial bank Act, 1994, Nepal
- Crosse, H.D. (1963). **Management policies for commercial banks**. USA; prentice hall India.
- Gitman, L.J. (1979), **Principle of managerial finance**, New York; Harper and Row.
- Hampton, john J; (1989), "*Financial decision making: concept, problems and cases*", prantice hall of India, 4<sup>th</sup> edition

- Khan, M. Y; Jain P.K; (1997), **Financial management, text and problem, Tata Mcgrow Hill publishing Co; 2<sup>nd</sup> edition**
- Kothari, C; (1990), **Research Methodology Techniques; Willey eastern limited**
- Kulkarni, P.V. **“Ram Doot”**, Himalayan publishing house, 2<sup>nd</sup> edition
- Modigliani, H and Miller H, **“The Cost of Capital, Corporate Finance and the Theory of Investment,”** American economic review
- Nepal Commercial Bank Act 2031.
- Nepal Rastra Bank Act 2058
- Pandey, I.M; (1995) **“Financial Management”**, Vikash publishing house, 7<sup>th</sup> edition
- Pandey, M.K (1999), **A study on capital structure of standard chartered bank ltd and Nepal Bangladesh bank limited.** Unpublished master’s degree thesis, central department of management, Tribhuvan University.
- Pringle, J.J (1974), **The capital structure decision in commercial banks.** The journal of finance
- Subedi, D.S (2005), **A study on capital structure of Nabil bank limited,** unpublished mater’s degree, thesis, central department of management, Tribhuvan University
- Shrestha, Amuda; (2048) **“Elements of Finance”** Educational Publishers
- Shrestha, S (1990), **A Portfolio behavior for commercial banks in Nepal,** unpublished Ph. D. thesis, central department of management, Tribhuvan University
- Upadhyaya, G.B and Tiwari, N R (1980), **principle of money and banking in Nepal, Kathmandu: Ratna Pustak**

Van Horne, Jems C; (1997), *“Financial Management and Policy”*, prantice Hall of India

Van Horne, Jems C; (2003), **Financial management and policy 12<sup>th</sup> edition**, New Delhi, pearson education

Weston, J.F. and Copeland, Thomas E.; *“Managerial finance”* the Dryden press, 9<sup>th</sup> edition

Weston, J.F. and Brigham E.F; *“Managerial Finance”* the Dryden press. 7<sup>th</sup> edition

Wolff, H.K., & Pant, P.R. (2002). **A hand book for social science research and thesis writing (3<sup>rd</sup> edition)**: Buddha academic publishers & distributors Pvt. Ltd.

### **WEBSITES:**

[www.cbs.gov.np](http://www.cbs.gov.np)

[www.google.com](http://www.google.com)

[www.nabilbank.com.np](http://www.nabilbank.com.np)

[www.nepalsharemarket.com.np](http://www.nepalsharemarket.com.np)

[www.nepalstock.com](http://www.nepalstock.com)

[www.nrb.org.np](http://www.nrb.org.np)

[www.sebonp.com](http://www.sebonp.com)

[www.wikipedia.com](http://www.wikipedia.com)

## Appendix -I

### Calculation of correlation coefficient between Core capital and Supplementary Capital of Nabil Bank Ltd.

Core(x)	Suppl.(y)	$X = x - \bar{x}$	$X^2$	$Y = y - \bar{y}$	$Y^2$	XY
8.75	2.35	-0.128	0.016	0.45	0.203	-0.058
8.74	1.96	-0.138	0.019	0.06	0.004	-0.008
8.77	1.73	-0.108	0.012	-0.17	0.029	0.018
8.83	1.75	-0.048	0.002	-0.15	0.023	0.007
9.30	1.71	0.422	0.178	-0.19	0.036	-0.08
$\Sigma x = 44.39$	$\Sigma y = 9.5$		$\Sigma x^2 = 0.227$		$\Sigma y^2 = 0.294$	$\Sigma XY = -0.121$

$$\bar{X} = \frac{\sum X}{N} = \frac{44.39}{5} = 8.878$$

$$\bar{Y} = \frac{\sum y}{N} = \frac{9.5}{5} = 1.9$$

Correlation of Coefficient:

$$r = \frac{\sum XY}{\sqrt{\sum x^2 \sum y^2}} = \frac{-0.121}{\sqrt{0.227 \times 0.294}} = -0.468$$

$$P.E. = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - (-0.468)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.781}{2.2361} = 0.236$$

$$6 \times P.E. = 6 \times 0.236 = 1.413$$

## Appendix -II

### Calculation of correlation coefficient between Total Assets and Total Debt of Nabil Bank Ltd.

Total Asset (x)	Total Debt (y)	$X = x - \bar{x}$	$X^2$	$Y = y - \bar{y}$	$Y^2$	XY
37133	34696	-13765.6	189491743	-13299.6	176879360	183076974
43867	40737	-7031.6	49443399	-7258.6	52687274	51039572
52152	48315	1253.4	1571011.6	319.4	102016.36	400335.96
58141	53575	7242.4	52452358	5579.4	31129704.4	40408247
63200	62655	12301.4	151324442	14659.4	214898008	180331143
$\Sigma x = 254493$	$\Sigma y = 239978$		$\Sigma x^2 =$ 444282953		$\Sigma y =$ 475696363	$\Sigma XY =$ 455256271

$$\bar{X} = \frac{\sum X}{N} = \frac{254493}{5} = 50898.60$$

$$\bar{Y} = \frac{\sum y}{N} = \frac{239978}{5} = 47995.60$$

Correlation of Coefficient:

$$r = \frac{\sum XY}{\sqrt{\sum x^2 \sum y^2}} = \frac{455256271}{\sqrt{444282953 \times 475696363}} = 0.990$$

$$P.E. = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - (0.990)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.0199}{2.2361} = 0.006$$

$$6xP.E. = 6 \times 0.006 = 0.036$$



## Appendix -III

### Calculation of correlation coefficient between Equity Capital and Debt Capital

Equity Capt. (x)	Debt Capital (y)	$X = x - \bar{x}$	$X^2$	$Y = y - \bar{y}$	$Y^2$	XY
2437	34696	-1153.6	1330793	-13299.6	176879360	15342419
2647	40737	-943.6	890380.96	-7258.6	52687274	6849215
3257	48315	-333.6	111288.96	319.4	102016.36	-106551.8
4567	53575	976.4	953356.96	5579.4	31129704.4	5447726.2
5045	62655	1454.4	2115279.4	14659.4	214898008	21320631
$\Sigma x = 17953$	$\Sigma y = 239978$		$\Sigma x^2 =$ 5401099.2		$\Sigma y =$ 475696363	$\Sigma XY =$ 48853439

$$\bar{X} = \frac{\sum X}{N} = \frac{17953}{5} = 3590.60$$

$$\bar{Y} = \frac{\sum y}{N} = \frac{239978}{5} = 47995.60$$

Correlation of Coefficient:

$$r = \frac{\sum XY}{\sqrt{\sum x^2 \sum y^2}} = \frac{48853439}{\sqrt{5401099.2 \times 475696363}} = 0.964$$

$$P.E. = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - (0.964)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.0182}{2.2361} = 0.0055$$

$$6xP.E. = 6 \times 0.0055 = 0.033$$

## Appendix -IV

### Calculation of correlation coefficient between Total Assets and Total Equity

Total Asset (x)	Total Equity (y)	$X = x - \bar{x}$	$X^2$	$Y = y - \bar{y}$	$Y^2$	XY
37133	2437	-13765.6	189491743	-1153.6	1330792.96	15879996
43867	2647	-7031.6	49443399	-943.6	890380.96	6635017.8
52152	3257	1253.4	1571011.6	-333.6	111288.96	-418134.2
58141	4567	7242.4	52452358	976.4	953356.96	7071479.4
63200	5045	12301.4	151324442	1454.4	2115279.36	17891156
$\Sigma x = 254493$	$\Sigma y = 17953$		$\Sigma x^2 =$ 444282953		$\Sigma y^2 =$ 5401099.2	$\Sigma XY =$ 47059515

$$\bar{X} = \frac{\sum X}{N} = \frac{254493}{5} = 50898.60$$

$$\bar{Y} = \frac{\sum y}{N} = \frac{17953}{5} = 3590.60$$

Correlation of Coefficient:

$$r = \frac{\sum XY}{\sqrt{\sum x^2 \sum y^2}} = \frac{47059515}{\sqrt{444282953 \times 5401099.2}} = 0.961$$

$$P.E. = 0.6745 \times \frac{1 - r^2}{\sqrt{n}} = 0.6745 \times \frac{1 - (0.961)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.0765}{2.2361} = 0.0231$$

$$6xP.E. = 6 \times 0.0231 = 0.1386$$

## Appendix -V

### Calculation of correlation coefficient between Net Income and Operating Income

Net Income (x)	Opr. Income (y)	$X = x - \bar{x}$	$X^2$	$Y = y - \bar{y}$	$Y^2$	XY
7465	1123	4931.2	24316733	-702.6	493646.76	-3464661
1031	1570	-1502.8	2258407.8	-255.6	65331.36	384115.68
1139	1707	-1394.8	1945467	-118.6	14065.96	165423.28
1338	2081	-1195.8	1429937.6	255.4	65229.16	-305407.3
1696	2647	-837.8	701908.84	821.4	674697.96	-688168.9
$\Sigma x = 12669$	$\Sigma y = 9128$		$\Sigma x^2 =$ 30652455		$\Sigma y^2 =$ 1312971.2	$\Sigma XY =$ -3908698

$$\bar{X} = \frac{\sum X}{N} = \frac{12669}{5} = 2533.80$$

$$\bar{Y} = \frac{\sum y}{N} = \frac{9128}{5} = 1825.60$$

Correlation of Coefficient:

$$r = \frac{\sum XY}{\sqrt{\sum x^2 \sum y^2}} = \frac{-3908698}{\sqrt{30652455 \times 1312971.20}} = -0.6161$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-(-0.6161)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.6204}{2.2361} = 0.1871$$

$$6xP.E. = 6 \times 0.1871 = 1.1226$$

## Appendix -VI

### Calculation of correlation coefficient between Shareholders' Equity and Net Income

SHE (x)	Net Income (y)	$X = x - \bar{x}$	$X^2$	$Y = y - \bar{y}$	$Y^2$	XY
2440	7465	-1447.2	2094387.8	4931.2	24316733.4	-7136433
3129	1031	-758.2	574867.24	-1502.8	2258407.84	1139423
3840	1139	-47.2	2227.84	-1394.8	1945467.04	65834.56
4567	1338	679.8	462128.04	-1195.8	1429937.64	-812904.8
5460	1696	1572.8	2473699.8	-837.8	701908.84	-1317692
$\Sigma x = 19436$	$\Sigma y = 12669$		$\Sigma x^2 =$ 5607310.80		$\Sigma y =$ 30652454.8	$\Sigma XY =$ -8061772

$$\bar{X} = \frac{\sum X}{N} = \frac{19436}{5} = 3887.20$$

$$\bar{Y} = \frac{\sum y}{N} = \frac{12669}{5} = 2533.80$$

Correlation of Coefficient:

$$r = \frac{\sum XY}{\sqrt{\sum x^2 \sum y^2}} = \frac{-8061772}{\sqrt{5607310.80 \times 30652454.80}} = -0.6149$$

$$\begin{aligned} \text{P.E.} &= 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-(-0.6149)^2}{\sqrt{5}} \\ &= 0.6745 \times \frac{0.6219}{2.2361} = 0.1876 \end{aligned}$$

$$6x\text{P.E.} = 6 \times 0.1876 = 1.1255$$

## Appendix -VII

### Calculation of correlation coefficient between Net Income and Total Deposit

Net Income (x)	Tot. Deposit (y)	$X = x - \bar{x}$	$X^2$	$Y = y - \bar{y}$	$Y^2$	XY
7465	31915	4931.2	24316733	-12163.8	147958030	-59982131
1031	37348	-1502.8	2258407.8	-6730.8	45303668.6	10115046
1139	46411	-1394.8	1945467	2332.2	5439156.84	-3252953
1338	49696	-1195.8	1429937.6	5617.2	31552935.8	-6717048
1696	55024	-837.8	701908.84	10945.2	119797403	-9169889
$\Sigma x = 12669$	$\Sigma y = 220394$		$\Sigma x^2 = 30652455$		$\Sigma y^2 = 350051195$	$\Sigma XY = -69006973$

$$\bar{X} = \frac{\sum X}{N} = \frac{12669}{5} = 2533.80$$

$$\bar{Y} = \frac{\sum y}{N} = \frac{220394}{5} = 44078.80$$

Correlation of Coefficient:

$$r = \frac{\sum XY}{\sqrt{\sum x^2 \sum y^2}} = \frac{-69006973}{\sqrt{30652455 \times 350051195}} = -0.6662$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-(-0.6149)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.5562}{2.2361} = 0.1678$$

$$6xP.E. = 6 \times 0.1678 = 1.0066$$

## Appendix -VIII

### Calculation of correlation coefficient between Net Interest Earning and Interest Earning Assets

NIE (x)	IEA (y)	$X = x - \bar{x}$	$X^2$	$Y = y - \bar{y}$	$Y^2$	XY
1220	31305	-826	682276	-13189	173949721	10894114
1645	38416	-401	160801	-6078	36942084	2437278
2088	45972	42	1764	1478	2184484	62076
2299	51115	253	64009	6621	43837641	1675113
2978	55662	932	868624	11168	124724224	10408576
$\Sigma x = 10230$	$\Sigma y = 222470$		$\Sigma x^2 =$ 1777474		$\Sigma y =$ 381638154	$\Sigma XY =$ 25477157

$$\bar{X} = \frac{\sum X}{N} = \frac{10230}{5} = 2046$$

$$\bar{Y} = \frac{\sum y}{N} = \frac{222470}{5} = 44494$$

Correlation of Coefficient:

$$r = \frac{\sum XY}{\sqrt{\sum x^2 \sum y^2}} = \frac{25477157}{\sqrt{1777474 \times 25477157}} = 0.9782$$

$$P.E. = 0.6745 \times \frac{1-r^2}{\sqrt{n}} = 0.6745 \times \frac{1-(0.9782)^2}{\sqrt{5}}$$

$$= 0.6745 \times \frac{0.0431}{2.2361} = 0.0130$$

$$6xP.E. = 6 \times 0.0130 = 0.078$$