CHAPTER-I

INTRODUCTION

1.1 General Background

Nepal is a developing country situated in south Asia. It is a landlocked country located between India and china. Agriculture is the backbone of the Nepalese economy. It is the livelihood for majority of population and the main source of gross domestic production, income and employment generation but non-agricultural sector has also significant contribution in national economy.

The pace of development of every country depends merely upon the level of economic development of that country. Economic development depends upon capital formation and its proper utilization. In other words economic development depends upon transformation of savings into the actual investment. Capital formation leads to increase in the national output, income and employment solving the problem of inflation and balance of payment by making the economy free from the burden of foreign debt. Domestic capital formation helps in making a country self-sustainable. So, financial institutions are necessary.

Financial institutions collect scattered savings of the country and invest them into the most desirable and high yielding sectors of the economy to enhance the process of economic development. It has been well established that the economic activities of any country can hardly be carried forward without the assistance of financial institutions. The development of the country is possible only when financial services reach each and every corner of the country. Commercial banks are major financial institutions, which occupy an important place in the framework of every economy because they provide capital for the development of business, trade and industry and other resource

deficit sectors by investing the savings collected as deposits. Commercial banks are heart of the financial system. They hold the deposits of people, government and business units. They make funds available through their lending and investing activities to borrowers-individuals, business firms and governments (Reed, Cotter, Gill and Smith.1976).

Commercial banks are the media through which monetary policy is affected. They play an important role in directing the affairs of the economy in various ways. The operation of commercial banks measures the economic pulse of the economy. They have played a vital role in giving a direction to development of economy overtime by financing the requirements of trade and industry of the country. They grant loans and advances in the form of cash credits and overdrafts. Apart from financing, they also render services like collection of bills and cheques, safe keeping of variables, financing, advising etc. to their customers. So, we cannot deny the role of banks in developing an economy.

Every bank formulates an investment policy in order to define the objectives of banks' liquidity management and investment portfolio. Investment policy is one of the overall ranges of policies that guide banks' investments operation. There are two types of funds for investment i.e. capital and deposits. Deposits constitute the major portion for its investment purpose. The investment policy of banks is highly influenced by the nature of funds available for its investment.

A healthy development of any bank depends upon its investment policy. A sound and viable investment policy can be effective to attain the economic objectives which are directed towards an acceleration of the pace of development. A sound investment policy of a bank is such that its funds are distributed on different types of assets with good profitability on one hand and provides maximum safety and security to the depositors and banks on the other

hand. There are five basic principles which commercial bank follows while making loans and advances. They are liquidity, profitability, safety and security, suitability and dispersal.

Investment is the major decision of commercial banks. It involves the decisions of capital or commitment of funds to long term assets that would yield benefit in future. The features of investment decision are profit, risk, speculation and wealth. The future benefit of investment is uncertain and so cannot be predicted easily. Thus, investment decision should be evaluated in terms of return and risk. Investment policy ensures maximum return and minimum risk. Good investment policy ensures maximum amount of investment in all sectors with proper utilization. The proper investment policy helps the bank to make profitable investment which help in the development of a country as well as to achieve the objectives of profit making.

1.1.1 Origin and Development of Commercial Banks

In the context of Nepal, the development of banking is relatively recent. The record of banking system in Nepal gives detail account of mixture of slow and steady evolution in the financial and global economy of Nepalese life. Involvement of landlords, rich merchants, the goldsmiths and moneylenders conducted the lending and borrowing activities.

Though establishment of banking industry was very recent, some crude bank operations were in practice even in the ancient times. During 8th century, Gunkamdev had borrowed money to rebuild the Kathmandu valley. In 11th century, during Malla regime, there was evidence of professional money lenders and bankers. The establishment of the Tejarath Adda during the year 1877 A.D. helped the general public to provide credit facilities at a very low rate of 5%. Crude banking operation started in 1879 A.D. after Shankadhar, a merchant of Kantipur, announced "Nepal Sambat" after having paid all the

outstanding debts in the country. In order to remove all inconveniences in past time, a systematic step was implemented.

Nepal's modern banking system had begun with the establishment of the first commercial bank and first bank of Nepal i.e. Nepal Bank Ltd. on 30th Kartik, 1994 B.S. It was the first commercial bank with 51% government equity. At that time, this bank had authorized capital of RS.10 million and paid up capital of Rs.842 thousand. However its activities were confined to deposit mobilization and commercial lending. With the increasing need of the economy, Nepal Rastra Bank was set on 14th Baisakh 2013 B.S. as the Central Bank of Nepal. Besides providing banking services, commercial bank provides industrial term loans and short working capital to businesses and industrial enterprises. Rastriya Banijya Bank came into existence in 2022 B.S, fully government with the authorized capital of Rs.10 million and paid up capital of Rs.2.5 million. Nepal Bank Ltd. and Rastra Banijya Bank are the two biggest indigenous commercial banks with a wide network of branches in the country.

In modern times, commercial banks, which are facilitated, regulated and supervised by the Central bank, confined them and concentrated in their activities of fulfilling the financial needs of their customers. As per the Commercial Bank Act 2013 B.S, a commercial bank means the bank which deals in exchanging currency, accepting deposits, giving loans and doing commercial transactions. According to American Institute of Banking, commercial bank is a corporation which accepts demand deposits subject to cheque and makes short-term loans to business enterprises, regardless of the scope of its other services. In order to promote banking sectors, government adopted open economic policies and allowed the entry of foreign bank on joint venture basis with a maximum of 50% equity shareholders. NABIL Bank Ltd. was the pioneer bank to set up under such arrangement in Nepal. The arrangement was followed by the establishment of other commercial banks.

1.1.2 Functions of Commercial Bank

The functions of commercial bank can hardly be defined. The prime function is to collect scattered idle money from general public as deposits and charge a certain amount of interest by lending the fund to trade and industries. It also provides other banking services and assistances to its customer, ex. Agency banking services, transfer of fund, discounting bill of exchange, exchanging foreign currencies, overdraft facilities, letter of credit facilities, underwriting of securities, etc. Major functions of commercial bank are as follows:-

1. Accepting Deposit:

Commercial banks accept deposit from general public in different type of accounts. They are current account, saving account and fixed deposit account.

a. Current Account:

A current account is a running account with amounts being paid into and drawn out of the account continuously. This is also called the demand deposit, which never becomes time-barred. Banks do not pay any interest on credit balance on this account. Any balance below minimum will be liable to incidental charges. The minimum balance and the charges shall be as determined by the bank time to time.

b. Saving Account:

A saving account is mainly meant for non-trading customers who have some potential for saving and don't have numerous transactions entering their accounts. The normal rate of interest is provided in this account and clients are restricted to freely operate their accounts by some rules such as maintaining minimum balance. Any balance below minimum will be liable to incidental charges as fixed by the bank time to time, which may differ from one bank to another.

c. Fixed Deposit:

A fixed deposit constitutes a very important resource for bank as bank need not keep greater reserve in respect of such deposit. As per the regulation of NRB, different banks follow different interest policies having regard to the size of deposits held by them. These are deposited by the customers for a fixed period of minimum 14 days and maximum no time limit. This is withdrawn on maturity and not on demand, so, it is also known as time deposit.

2. Advancing Loan:

Bank performs the function of loan to the needy. The needy may be any individual or other institution. Banks provide various types of loans such as overdraft, priority sector loan, importers loan, deprived sector loan, hire purchase loan, pre-export loan, direct loan with collateral, term loan, discounting bills of exchange, loan against fixed deposit, working capital loan, loan on government bond, etc.

3. Agency Services:

Bank performs various functions as an agent on behalf of its clients. Under these services, it performs the services such as collection of cheques, fund transfer, payment of cheque, bills and promissory note, security brokerage services, letter of credit and guarantee, receipt of payment of certain dividend and interest, etc.

4. Miscellaneous Services:

The additional functions of bank are assurances of traveler's cheque, safe deposit locker service, collection of trade information, financial advisory service, credit creation, etc.

1.2 Profile of Selected Banks

In this chapter, it has been discussed about the profiles of concerned banks. These profiles are related to the establishment, objectives, capital structure and facilities granted by the concerned banks.

Nepal Bank Limited (NBL): -

NBL was established in1937 with on authorized capital of Rs 10 million. Initially, the amount of share was divided into 100000 share of Rs 100 each and paid up capital of Rs. 842 thousand. Nepal Bank Ltd was the first commercial bank with 51% government share and rest 49% public share. The concept of financial institution in Nepal was introduced when the first commercial banks, the Nepal Bank Ltd. Was established in 1937, as a semi-government organization, without existence of a central bank in the country. Now NBL has 97 branches on 51 districts with employing 2937 employees.

Share Subscription & Capital Structure of NBL

Share Subscription	% Holding Previous	% Holding Now
Government Share	51	40.49
Private Share	49	54.59
NCC Bank	-	4.92

Figure 1: - Pie Chart Showing Share Subscription of NBL

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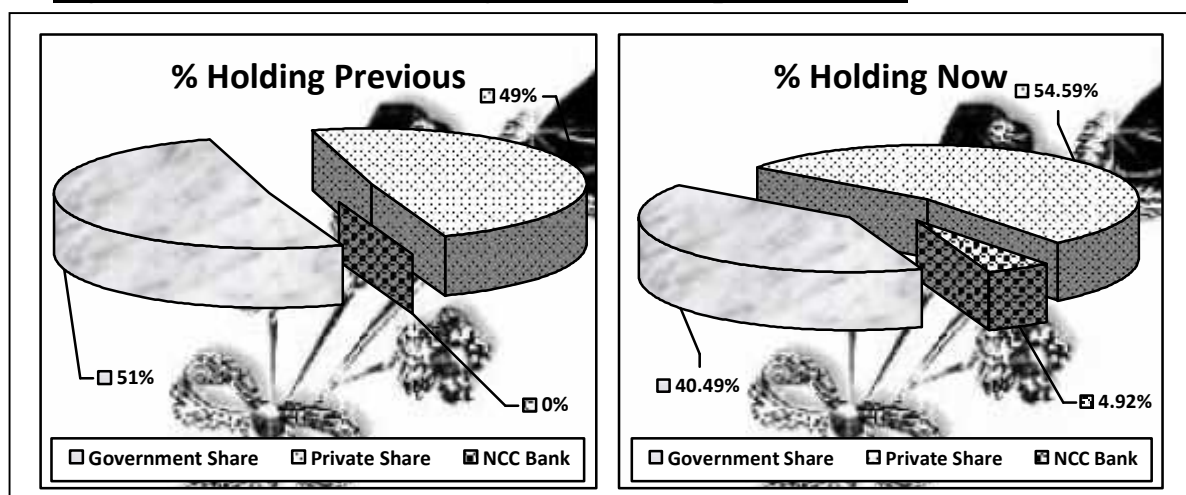
Share Capital Structure	NRs
Authorized Capital	1,000,000,000
Issued Capital (500,000 share of Rs 100 each	500,000,000
Paid up Capital (380,326 share of Rs 100 each)	380,382,600

Figure 2: - Pie Chart Showing Capital Structure of NBL
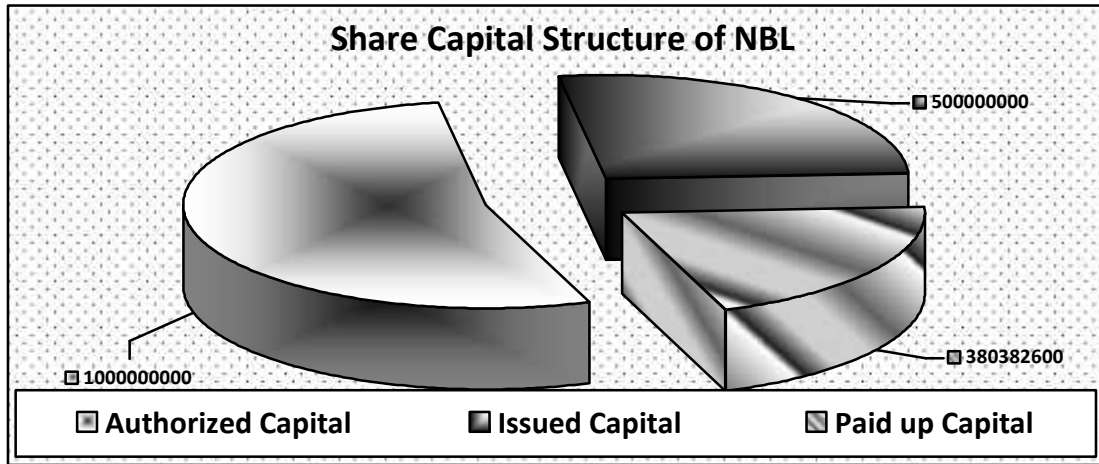
Rastriya Banijya Bank (RBB): -

RBB was established in Magh 10, 2022 B.S as fully government owned as a second largest commercial banks. The RBB was established according to the Rastriya Banijya Bank Act 2021. The main purpose of establishing RBB was to make banking service available in all sectors by proper utilization of funds. At the establishment its authorized capital 10 million 2.5 million as paid up capital. During the period the banking transaction increase rapidly and it was felt for extension of capital and it raised authorized capital to 1 billion 557 million and 600 thousand rupees and paid up capital to 1 billion 172 million and 300 thousand. Now RBB has 114 branches all over the country and employing 3140 employees.

Share Subscription & Capital Structure of RBB

Subscription	No. of Share Under taken	% Holding
Ministry of Finance, Singhadurbar; Ktm	363,000,000	94.21
Financial Comptroller's Office Babarmahal	20,300,000	5.27
The Ministry of Industries, Commerce & Supples, Singhadurbar; Ktm	400,000	0.104
The Ministry of Labor & Transport Management, Singhadurbar; Ktm	400,000	0.104
The Ministry Tourism, Singhadurbar; Ktm	400,000	0.104
The Ministry of Water Resources Singhadurbar	400,000	0.104
Total	385,300,000	100

Figure 3: - Pie Chart Showing Share Subscription of RBB
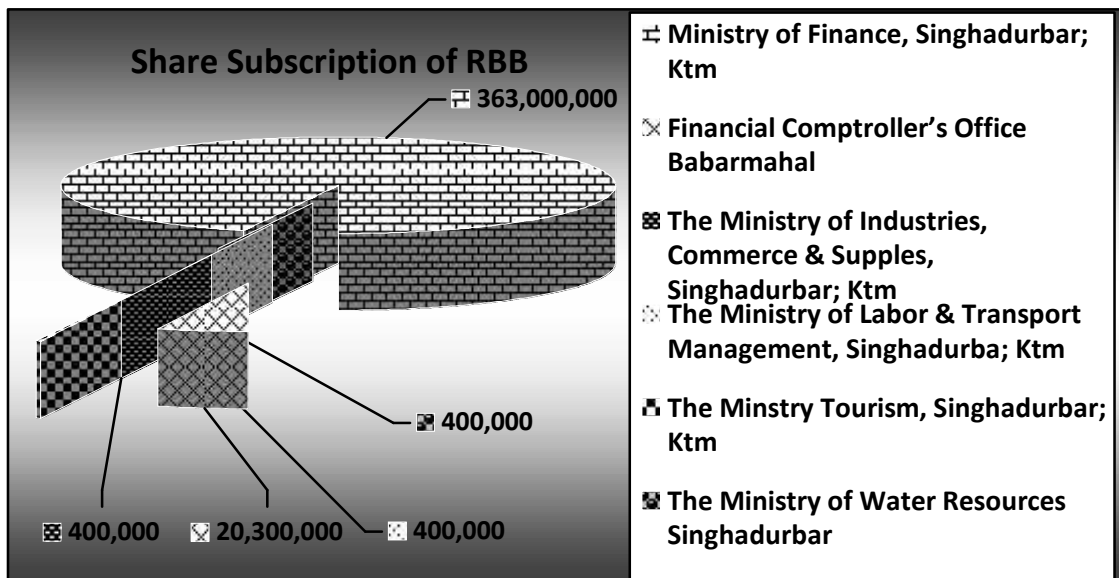
Capital Structure	NRs.
Authorized Capital	1,557,600,000
Issued Capital	1,172,300,000
Paid-up Capital: -	1,172,300,000
- Ordinary Share Capital	385,300,000
- Preference Share Capital	787,000,000

Figure 4: - Pie Chart Showing Capital Structure of RBB

Share Capital Structure of RBB

☑ 385,300,000
☐ 1,172,300,000
☑ 1,172,300,000
☐ 787,000,000
☑ 1,557,600,000

☒ Authorized Capital   ☐ Issued Capital   ☐ Paid-up Capital
☐ Ordinary Share Capital   ☐ Preference Share Capital
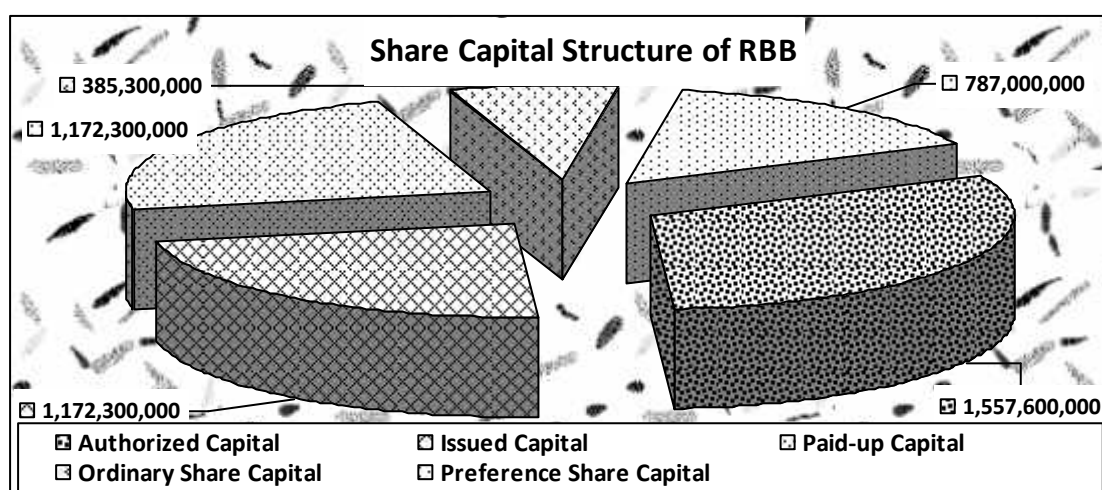
(Source: Memorandum of Association of RBB)

Nepal Investment Bank Limited (NIBL): -

NIBL earlier known as Nepal Indosuez Bank Ltd is one of the oldest joint venture banks in the country that established in 2042 B.S under company Act 2023 as second joint venture bank. The bank had joint venture between Nepalese and French partner. The FRENCH partner holding 50% of the capital of NIBL was credit Agricole Indosuez, a subsidiary of one of the largest banking group in the world. Later the name of the bank has been changed to Nepal Investment Bank Ltd. (NIBL) upon the approval of bank's annual general meeting, NRB and company resister's office with new shareholding structure. The main objective of the bank is to provide loans and advances to agriculture industries and commerce and to provide modern banking services to the people. NOW NIBL has 18 branches and 23 ATM service center allover the country with employing 623 employees.

Share Subscription & Capital Structure of NIBL

Subscription	% Holding
Prithivi B. Panday's Group	50
RBB	15
RBS	15
General Public	20
Total	100

Figure 5: - Pie Chart Showing Share Subscription of NIBL
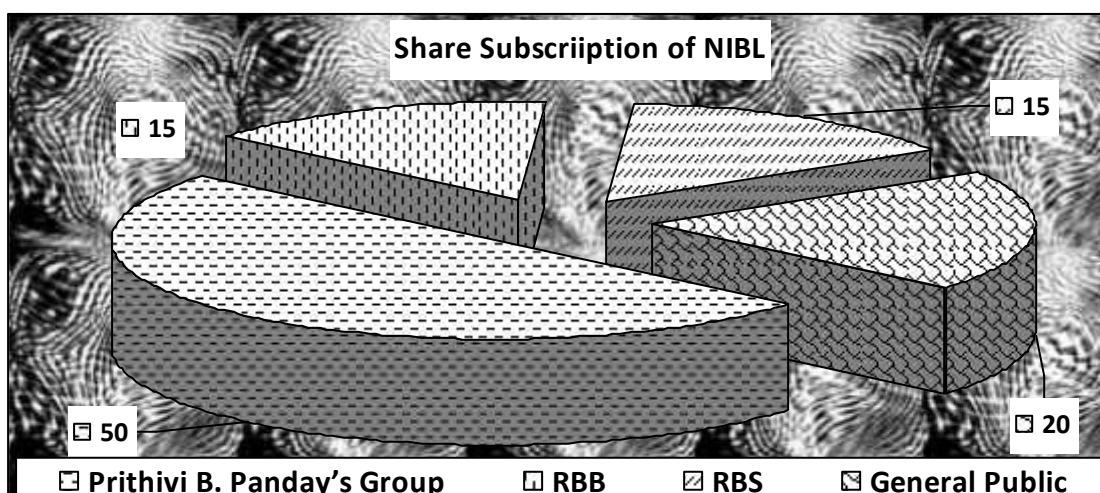
Share Capital Structure	NRs
Authorized Capital	2,000,000,000
Issued Capital (12,039,154 share of Rs 100 each)	1,203,915,400
Paid up Capital (12,039,154 share of Rs 100 each)	1,203,915,400

Figure 6: - Pie Chart Showing Share Capital Structure of NIBL
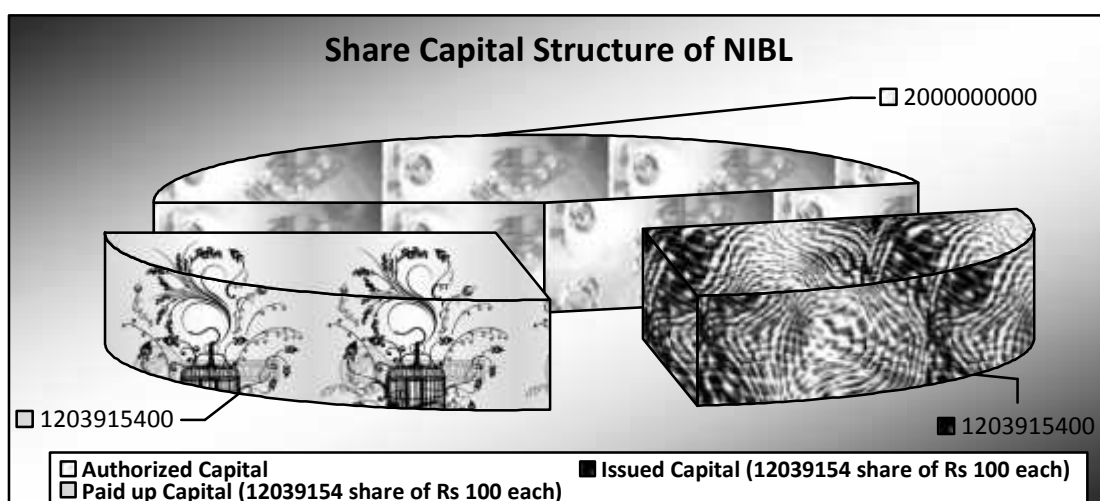
Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987AD.It was incorporated in collaboration with ANZ Grinlays Bank Limited in 1987 as third joint venture bank. The bank was initially incorporated in the name of Nepal Grindlays Bank Limited. In 2000, the ANZ Grindlays

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Bank was amalgamated in Standard Chartered Banking Group and the 50% stake of former was transferred to the latter by virtue of amalgamation. Consequently the name of the bank was changed as Standard Chartered Bank Nepal Limited. The bank has installed in an advanced Automatic Teller machine, which is designed to be useful for the international credit card holder also. The has corporate office in New Baneshwor and its branches in lazimpat, lalitpur as well as out of kathmandu valley such as in Biratnagar, Bhairahawa, Pokhara, Hetauda, Dharan etc.

Share Subscription& Capital Structure of SCBNL

Share Subscription	% Holding
Standard Chartered Grindlays Bank Limited	50
Nepal Bank Limited	30
Nepalese Public Shareholders	15

Figure 7: - Pie Chart Showing Share Subscription of SCBNL
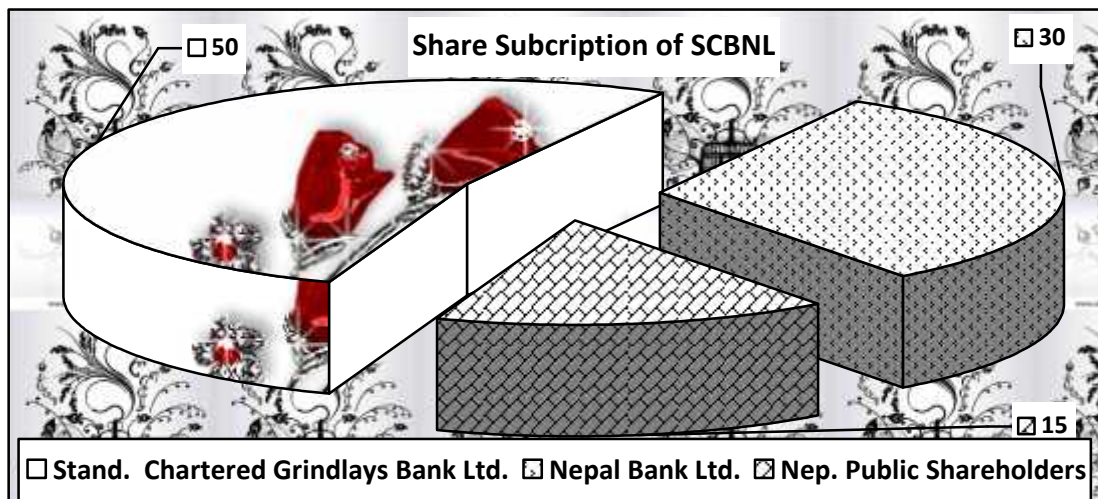
Share Capital Structure	NRs
Authorized Capital	339,548,800
Issued Capital (3,395,488 shares of Rs 100 each	339,548,800
Paid up Capital (3,395,488 share of Rs 100 each)	339,548,800

Figure 8: - Pie Chart Showing Share Capital Structure of SCBNL
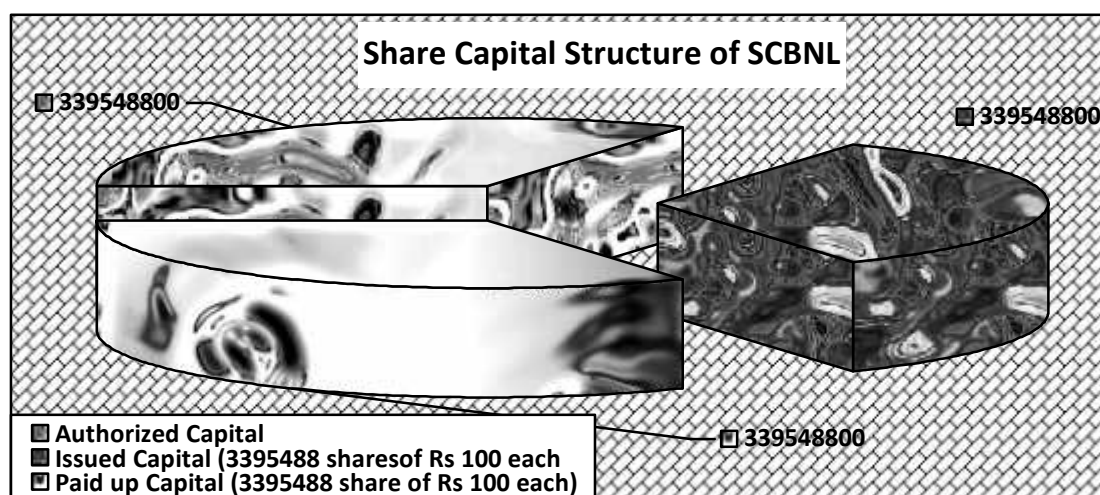
1.3 Focus of the Study

This study focuses on fund mobilization and the investment policy adopted by the commercial banks as well as financial position and investment practices of selected commercial banks in Nepal. In the current competitive financial market, commercial banks should have to formulate new and modern techniques of investment. The profit of the organization depends upon the fund mobilization and investment policies adopted by the organization. With regard to investment policy of the commercial bank, they follow five basic principles while making loans and advances. So this study will mainly focus about the relationship between investment policies and the financial position i.e. the profit and loss of the organization and to make comparative study of NBL, RBB, NIBL and SCB regarding financial performance in term of liquidity, asset management, profitability and risk. The period of the study is 7 years i.e. from fiscal year 2001/02 to 2007/08.

1.4 Statement of Problems

Investment is the backbone of economic development of the country. The increasing number of the banks due to liberalization of economic sectors is good indication of economic growth. At the same time, it creates challenges to the commercial banks as it is also an indication of increasing competition

among the banks of Nepal. Domestic commercial banks are facing maximum competition than joint ventures foreign banks due to their nature of work and social responsibility.

Banking industry in any country is determined by a number of factors like political, economic development, real economic growth, banking awareness, growth of population, international activity of banks, level of urbanization etc. Though several commercial banks and other financial institution have been established within a short period of time to enhance the economic activity of the country, but sufficient return cannot be earned and strong stable and appropriate investment practices have not been followed. In the one hand these banks collected huge amount of deposits where in other hand investing opportunity are comparatively very low. Due to less investing opportunity banks used to discourage depositors by reducing the interest rate on deposits and increasing the minimum depositor's balance such condition may cause the high liquid market, it can impact the whole economic sector negatively. Due to throat cut competition of financial environment banks seem to be ready to grant unsecured loans & advances and investments, it may cause the liquidation of these banks. If the funds are wrongly invested without thinking any financial risk, business risk and related facts, the banks cannot obtain return as well as it would sometimes loss its principal.

In 1990s, the development of banking in both quality and quantity was satisfactory. However subsequent development of commercial banks in quality has not been satisfactory. The central bank once had with drawn the permission to register the new bank due to unsatisfactory increment in credit of productive and employment generating sector. The banking services in the rural areas have been squeezed due to the withdrawal of the commercial bank branches from that area. All the commercial banks are concentrated only in the major urban centers and there also to the big business houses. The joint venture banks are not interested in granting loan to the primary and deprived sector of the

economy. Banking is not being the easy accessibility of public in remote and village area. Majority of banking institutions are concentrated their operation mainly in an urban area of the country. In such a situation, it has been a must for those institutions to search for the new possible areas of investment. The rural areas where around 80 percent people reside have not benefited from this expanded financial sector. This is not justifiable.

Commercial banks accumulate their funds by accepting deposit and also raise capital by issuing shares. One of the most important problems in the banking industry is investing its deposits and capital in various form of earning assets. This is also known as the portfolio management. The investment policy of banks is highly influenced by the nature of funds available for its investment. So, the basis of loan portfolio depends on the deposits mix it has. If the funds are of permanent nature, the chances of acquiring profitable assets are high. On the contrary, if the funds are of short term nature, the banks must also give full attention for its liquidity position than its investment. As a result, chances of earning profit are always at risk. The investment policy must be such that it ensures that it is sound, efficient and prudent in order to protect public funds.

In this study, all of the selected commercial banks' investment policy is analyzed and comparing with each other. Following are the major problems that have been identified for the purpose of this study.

a. What are the causes of differences in profitability of state owned commercial banks and other commercial banks?
b. Does the investment decision affect the total earnings of the banks?
c. Do the banks utilize its collected fund? Is fund mobilization and investment policy of the bank effective and efficient than each other?
d. What are the factors that affect the investment decision of the banks?

e. What are the relationship of investment and loan & advances with total deposit and total net profit of banks and comparing their performance with each other?

1.5 Objectives of the Study

The basic objective of this study is to analyze the investment policy adopted by selected commercial banks i.e. NBL, RBB, NIBL and SCB. The main objectives of the study are mentioned as follows:

a. To analysis the causes of differences in profitability of state owned commercial banks and other commercial banks.

b. To evaluate the investment decisions with references to profitability of the banks and to make comparative study of NBL, RBB, NIBL and SCB on investment policy.

c. To analyze, evaluate and interpret the financial position and investment practices of the stated owned commercial banks and other commercial banks in Nepal in terms of liquidity, assets management, profitability and risk.

d. To examine the factors like nature of deposits, loan and advances, investment, net profit and assets of concerned banks that determines the investment policy of commercial banks.

e. To find the relationship of investment and loan & advances with total deposit and total net profit of banks and comparing their performance with each other.

f. To provide suggestions and recommendations to NBL, RBB, NIBL and SCB, that will help the management to improve investment policy and their performance.

1.6 Significance of the Study

Commercial banks can affect the economic condition of the whole country, hence the effort is made to highlight the investment policy of state owned and other commercial banks expecting that the study can be narrow down the bridge gap between deposits and investment policies & practices and also help to improve the profitability of the state owned commercial banks. In Nepal, there is less availability of research work, journals and articles in investment policy of stated owned commercial banks and other commercial banks. As investment is the backbone of the development of the country and commercial banks have great contribution in the economic growth, this study will try to highlight investment policy of commercial banks. Effective formulation and implementation of investment policy is the prime requisite for the effective performance of commercial banks. Good investment policy has positive impact on economic development of the country and vice-versa. So the investment policy of the commercial banks should be in accordance with the spirit of the economic upliftment of the people.

"The study on an investment policy of state owned commercial banks and other commercial banks with special references to NBL, RBB, NIBL and SCB" deserves some importance in this field since this study will provide a useful feedback to the people having substantial interest and other interested people of these banks such as shareholders, stakeholders, bank employee, trainees, investors, financial persons and intermediaries, policy- making bodies, financial institution, management of concerned banks, related parties and general public i.e. customers, depositors, creditors etc. Furthermore, this will be helpful for academic institution, teachers and students related to finance investment and accountancy. In conclusion, the importance of the study focuses on the following points:

〕 It will be helpful for commercial banks and financial institutions.

⟩ It will provide required information and data to required persons, readers, shareholders, regulators, decision makers, traders, investors, general public etc.

⟩ It will be valuable property for decision making.

⟩ This study can also be used as reference for future research.

1.7 Limitations of the Study

In this dynamic world, nothing is free from limitations. Although this research will be helpful to know the economic condition of the country but it doesn't cover whole sector. For the completion of this study, following are the limitations:

1. The study is mainly concentrated on four banks: NBL, RBB, NIBL & SCB.

2. The study is based on secondary data collected from concerned banks, various published journals, articles, newspapers, websites, NRB directives etc.

3. There are many factors that affect in investment decision and valuation of the firm. However, this study considered factors related to investment policy only.

4. In the study, the effort has been made to make the data uniform by taking mid July as the fiscal year.

5. The study covers only 7-years data.

1.8 Research Methodology

1. Introduction:

The study focuses on the investment policy of NBL, RBB, NIBL and SCB. The main objective of the study is to highlight the investment policy of stated owned banks and other commercial banks. The research methodology consists of research design, data collection procedure, data processing procedures and techniques of analysis.

2. Research Design:

Research design will be basically the comparative study of investment analysis of NABIL and HBL. Analytical and descriptive approaches are used to evaluate the investment policy of thesis banks.

3. Data Collection Procedure:

The study is mainly based on secondary data. The required data are collected from website of concerned banks. The annual data and bulletin are main sources of data. Data are tabulated since past seven fiscal years up to fiscal year 2005/2006.

4. Techniques of Analysis:

For presentation and interpretation of data, some tools have been used. These tools include financial and statistical tools. Similarly, other techniques such as graph, pie-chart, table, etc. are also used to analyze the data.

1.9 Organization of the Study

This study has been divided into five chapters, which are as follows:

Chapter I: Introduction

This chapter includes background of the study, focus of the study, statement of problem, objectives of the study, significance/importance of the study and limitation of the study.

Chapter II: Review of Literature

It deals with conceptual/theoretical review and review of related studies.

Chapter III: Research Methodology

It includes research design, population and sample, sources of data, data collection techniques, data analysis tools, limitation of methodology and review of related studies.

Chapter IV: Data Presentation and Analysis

It tries to analyze and evaluate data through various tools and interprets major findings of the study.

Chapter V: Summary, Conclusion and Recommendations

This chapter summarizes the study, create conclusions and recommends suggestions.

CHAPTER-II
REVIEW OF LITERATURE

In this chapter, the focus has been made on the review of literature relevant to the investment policy of state owned and other commercial banks. Review of literature is an essential part of all studies. It helps the researcher to develop a thorough understanding of previous research works that relates the present study because every study is based on past knowledge, principles etc. It provides foundation to the present study. This chapter helps to take adequate feedback to broaden the information based and inputs to the researcher's study. Therefore, this chapter has its own importance in this study.

2.1 Conceptual Review

This chapter focuses to discuss briefly about the theoretical concept of the investment and its relation with other subject matter in relation to banks of this study. This chapter is further divided into different parts as below:

2.1.1 Investment

Investment means employing money to generate more in the future. It is the use of capital to create more money through more risk-oriented ventures designed to result in capital gain. Investment is the forfeit of the current rupees for future rupees. The forfeit takes place in the present and is certain. The reward comes later and is uncertain. Hence there are three elements in investment which are risk, return and time.

Investment is a term which is quite confusing and multifaceted. In pure financial sense the subsequent use of the term investment will be in the prevalent financial sense of the placing of money in the hands of others for their use, in return for a proper instrument entitling the holders to fixed income payments or the participation in expected profits. But for manufacturing and

trading firms, the term investment will be those long- term expenditures that aim at increasing efficiency of plant capacity or building of goodwill, thereby producing an increased return over a period. Whereas economists view, investments as a productive process by means of which additions are made to capital equipment.

An investment is a commitment of funds made in the expectation of some positive rate of return (Fischer and Jordon, 1988). Likewise, an investment is simply deferred consumption instead of spending today; we choose to wait because we wish to have more to spend later (Corrado and Jordon, 2002). In the same way, the sacrifice of current dollar for future dollar is termed as investment. The sacrifice takes place in the present and is certain. The reward comes later, if at all, and the magnitude is generally uncertain (Sharpe and Gordon, 1995). Similarly, investment is any vehicle into which funds can be placed with the expectation that will preserve or increase in value and generate positive returns (Gitman and Joehnk, 1990).

From these definitions, it is clear that investment is simply the conversion of money into claims on money and use of fund for productive and income earning assets. It is the employment of funds with the target of achieving additional income or value in the future. It involves saving of resources from current consumption with the hope that some benefits will accrue in the future.

2.1.2 Policy

A policy is a plan of action to guide decisions and actions. It is the course of action to obtain objectives. Policy means rules and regulation set by organization. Policy determines the type of internal and external information resources. Policies in short can be understood as political management, financial and administrative mechanisms arranged to reach explicit goals.

2.1.3 Investment Policy

Investment policy can be defined as the action plan by which its funds are distribute on different types of assets with good profitability on the one hand and provide maximum safety and security on the other hand. Investment policy is the cornerstone of the investment process. Without it, investors have no appropriate context in which to make decisions.

Commercial bank should consider the national interest followed by borrower's interest and the interest of the bank itself before investing to the borrowers. To further pursue his view, bank lending must be for such purposes of the borrowers that are in keeping with the national policy and bank's overall investment policy. A bank's overall investment should be basically of short term characters, well spread, repayable on demand, profitable and well in adequate security.

2.1.4 Investment Environment

The investment environment refers to all internal and external forces, which have a bearing on the functioning of investment decisions. It encompasses the kinds of marketable securities that exist and where and how they are brought and sold through the brokers' network and financial intermediaries. Thus, the investment environment is the combination of securities, markets and intermediaries. Any securities transaction conducted without using broker is directly illegal in accordance with rules and regulation.

Security is a piece of paper representing the investor's right to certain prospects or property and the conditions under which s\he may exercise those rights. It serves as evidence of property right. It may be transferred to another investor. The term "security" refers to a claim to receive prospective future benefits under certain conditions.

Securities transaction means issuance, sale, purchase or exchange of securities and other activities pertaining there to. Transaction of securities includes issue or allotment of securities in primary market and transaction in secondary markets both. But a securities transaction is known as securities exchange in case the transaction is of allotted securities and transfer is executed through secondary market. Thus, the purchase or sale or transfer of ownership or exchange of securities after its public issue and allotment is called securities exchange.

Security market is a place or facility to accomplish the act of purchasing, selling, or exchanging securities on regular basis bringing together purchasers and sellers of securities. It brings the buyers and sellers together. On the basis of securities traded, security market can be classified into primary market and secondary market. On the basis of life-span of securities, it can be divided into money market and capital market.

Investment banker serves in the capacity of financial intermediaries that provides guarantee to the issues. It also acts as the lead investment banker having richness of experience to identify potential market for the distribution of securities. They create profit opportunities financial assets and using the networks in the efficient functioning of the primary market. The prominent investment bankers in Nepal by taking the responsibilities of new issue management are NIDC Capital Market, Nepal Merchant Banking, Citizen Investment Trust Fund, National Finance, Ace Development Bank, Nepal Share and so on.

Financial intermediaries act as specialists in performing functions beneficial to the economy in terms of liquidity, assets transformation, risk sharing and proper evaluation of securities backed by real assets to meet against claims (Anthony Saunders, 2002).

2.1.5 Characteristics of Good Investment Policy

The income and profit of any bank depends upon its investment of its fund in different securities and its lending procedure and policy. The greater the sound credit created by bank, the higher the profitability and vice-versa. A sound lending and investment policy is not only prerequisite for bank's profitability but also crucially significant for the promotion of commercial saving of a backward country like Nepal. In choosing specific investment policy, the investors need to identify & disclose their potential optimal investment portfolios that will maximize its return with minimal risk and involving high security & safety.

Some characteristics of sound lending and investment policies from which many successful investors compound their selection policies are as follows:

i. Profitability

The profit of commercial bank mainly depends on the interest rate, volume of performing loan, its time period and nature of investment in different securities. So, investors should invest their fund where they earn maximum profit.

ii. Liquidity

Liquidity refers the quality or capacity of any asset to be sold quickly with little risk of loss and possessing a relatively stable price over time. In other words, liquidity is the ability of the firm to satisfy its short-term obligations as they come due. Generally people use to deposit their earning in different account of the bank, having confidence that the bank will repay their money whenever it is needed. In order to maintain the confidence to the depositors, the bank must always be ready to meet current or short-term obligations when they become due for repayment.

iii. Safety and Security

An investor should be very conscious about investment procedures and sectors. It should not invest its fund in those securities which are subject to too much fluctuation and volatility because a small volume of alteration may cause a great loss. It should be careful while investing its fund into speculative businesses. The investor should accept that type of securities, which are marketable, ascertainable, stability and transferability.

iv. Diversification

"Don't put all the eggs in the same basket", it means don't hold any single securities; try to have a folio of different securities. This saying is very important to the bank. So, it should not grant loan and invest its fund in only one sector. To minimize risk, a bank must diversify its investment on different sectors. Diversification of loan helps to sustain loss according to the law of average because if the security of one sector is deprived, there may be appreciation in the securities of other company of another sector.

v. Purpose of Loan

Every bank collects deposit from the people to mobilize that fund as loan & advances and investment. If the borrower does not demand loans from the banks, the collected funds of the bank will be idle and it will decrease the profit of the bank. So, bank should provide various types of loans to various sectors. Detailed information about the scheme of the project or activities would be examined before lending.

vi. Legality

Illegal securities will bring out many problems for the investor. A commercial bank must follow the rules and regulations as well as different directions issued by Nepal Rastra Bank, Ministry of Finance, Ministry of Law and other while mobilizing its funds.

2.1.6 Commercial Banks and their Investment Policy

The term "bank" derives from the Latin "bancus", which refers to the bench on which the banker would keep its money and records. Some person traces its origin to the Italian word "banca", which means a bench for keeping, lending and exchanging of money. A bank is one who in the ordinary course of his business receives money which he pays by honoring cheques of persons from whom or whose account receives (hart, 1995).

Shakespeare (2001) in his book "Banking and Insurance Management" has classified bank as:

1) Central bank	2) Commercial bank	3) Agricultural bank
4) Industrial bank	5) Exchange bank	6) Saving bank
7) Co-operative bank	8) Merchant bank	9) Mutual funds
10) Pension funds	11) Housing bank	12) Equipment bank

Commercial banks are those banks which perform all kinds of banking functions as accepting deposits, advancing loans, credit creation, and agency function. They provide short term, medium term and long term loans to trade and industry. They also operate off balance sheet functions such as issuing guarantee, bonds, letter of credit, etc. Commercial banks are institutions which provide services such as accepting deposits and giving business loans. They are one of the vital aspects of banking sector, which deal in the process of channelizing the available resources in the needed sectors.

As per the Commercial Bank Act 2031 B.S, "A commercial bank means the bank which deals in exchanging currency, accepting deposits, giving loans and doing commercial transactions." Commercial banks bring into being the most important ingredient of the money supply, demand deposits through the creation of credit in the form of loan and investments (Crosse, 1963).

Commercial banks deal with other people's money. They have to find ways of keeping their liquid assets so that they could meet demands of their customers. Their motive is wealth maximization and giving maximum benefit to its shareholders. In the anxiety to make profit, the bank cannot afford to lock up their funds in assets, which are not easily releasable. The depositors must be to understand the bank is fully solvent. The depositors' confidence could be secured only if the bank is able to meet the demand for cash promptly and fully. The banker has to keep adequate cash for this purpose. Cash is an idle asset and bankers cannot afford to deep a large possession of his assets in the form of cash. Cash brings in no income to the bank. Therefore, the banker has to distribute his assets in such a way that he can have adequate profits without sacrificing liquidity.

Commercial banks are profit making organizations. A bank established without the aim of gaining the profit is the central bank. Other banks are inspired with the object of earning profit and helping the economic development. They should have the ability to use the policy of banking investment to implement it much more carefully otherwise a bank may be unsuccessful in its goal.

Without investment, a bank can't gain profit. Therefore, after the establishments of bank it collects deposits. It also collects capital by selling its shares. Thus, a great capital is collected in the bank. It is not better to keep such capital fund inactive. The bank should able to clear the policy of its investment by making deep study. Every commercial bank has an investment policy. The basic factors that will determine the objectives of a bank's investment policy are its income and liquidity needs and management's willingness to trade liquidity for greater income and liquidity needs and management's willingness to trade liquidity for greater income opportunities and vice versa, which means accepting greater or less risk. A bank that has a portfolio of high quality loans and relatively stable deposits can assume more risk. It might be preferable for

the bank to pursue and aggressive lending policy. The higher risk in the loan portfolio would be countered with a very liquid investment portfolio. One of the acceptable methods of reducing risk is by diversification, a basic and important rule of any investment. The investment process includes following steps:

1. Setting investment objectives.
2. Performing security analysis.
3. Construction a portfolio.
4. Revision of portfolio.
5. Evaluation portfolio evaluation.

Banks have developed format, written lending policies in recent years. They provide guidance for lending officers by establishing a greater degree of uniformity in lending practices.

Emphasizing the importance of investment policy, Lending is the essence of commercial banking; consequently the formulation and implementation of sound policies are among the most important responsibilities of bank directors and management (Crosse, 1963). Crosse further adds; the formulation of sound lending policies for all banks should have adequate and careful consideration over community needs, sizes of loan portfolio, character of loan, credit worthiness of borrower and asset pledged to security borrowing, interest rate policy.

The investment policy of a bank should be reviewed occasionally and modified as economic conditions change. It should be reviewed when developments occurring within or outside the bank dictate.

2.2 Meaning of Some Important Terms

Since the study is based on financial and managerial accounting subjects, efforts have been made to clarify the meaning of some important terms, which are frequently used in this study.

(a) Deposits

Commercial banks accept deposits from individuals, partnership firms and corporations and also from center government and local governments. In the context of commercial banks in Nepal, there is basically, non-interest bearing deposits includes and interest bearing deposits. The non-interest bearing deposits include current deposits, margin deposits and other deposits. But interest bearing deposits consists of savings, fixed, call and certificate of deposits. Deposit is the major source of liquidity and source of fund for commercial banks that usually uses for the generation of profit. Therefore, the efficiency of the bank depends upon its availability to attract deposits. The deposits of the bank are affected by various factors such as; types of customers, physical facilities of bank, management accessibility of customers, types and range of services offered by the bank, interest rate paid on deposits etc.

(b) Loan

The principal business of commercial banks is to make loans to qualified borrowers. The commercial bank earns profit by giving the amounts deposited with it in the form of loans. Bank loans may be classified as; loan & advances, overdraft, cash credit, discounting of a bills and so on. Loans and are the major component of bank's lending portfolio and main source of income for the bank. There are mostly commercials loan that are secured and constitutes main sources of bank's assets. The excess loan taken more than deposit balance is overdraft. The credit taken for a short period of overnight is cash credit. Banks discount the bill on the basis of providing exports credit using the document like bill of lending and other supporting documents. Loan may also be provided on the

security backing of fixed time deposits certificates. In addition to this, some portion of loan, advances and overdraft includes that amount which is given to staff of the bank for house loan, vehicle loan, personal loan and others. In mobilization of commercial banks fund, loan, advances and overdraft have occupied a large portion.

(c) Investment

Commercial banks also extend credit when they purchase securities; and this category of assets may be especially attractive when loan demand is slack, as a way of employing loanable funds. A very high percentage of these securities represent the obligations of governmental units. The remainder is corporate notes and bonds. Nepalese commercial banks have invested on shares and debenture Nepal Insurance and Transport Company, National Insurance Company, Nepal Oil Corporation, Credit Guarantee Corporation, Agricultural Project Service Centre, Rural Development banks and so on.

Investment of the commercial banks consist government treasury bills, government savings bonds, central banks bonds, foreign securities, local licensed institutions, foreign banks, corporate shares, corporate bonds and debentures and other investment.

As per NRB directives, the licensed institutions shall implement the policies and procedures regarding the investment in Government of Nepal securities, NRB bonds and other organized institutions' shares and debentures only under the approval of the Board of Directors. There shall no restriction as to investment by licensed institutions in the securities of Government of Nepal and NRB bonds. Licensed institutions shall invest in the shares and debentures of organized institutions listed in the Nepal Stock Exchange after the public issue of shares. However, where the investment has been made in the shares and debenture of organized

institutions which are not listed in the stock exchange, and if such listing is not complete within one year from the date of investment, a provision of equivalent to the whole amount of such investment be provided and credited to *Investment Adjustment Reserve* by creating such reserve fund. The outstanding amount in such reserve shall not be utilized for any other purpose till the said shares and securities of the organized institution are listed.

(d) Off-Balance Sheet Activities

Off balance sheet activities includes contract for future purchase or sale of assets and all these activities are contingent obligations. These are not recognized as assets or liabilities on balance sheet. Some examples of these items are letter of credit, letter of guarantee, bills of collection etc. these activities are very important, as they are the good source of profit of bank though they have risk.

(e) Profitability

Profitability is the crucial factor in making the stay of the bank in the market for the long run because profit is the measuring rod of the bank's long-term sustainability and the survival. Only by being profitable, a bank can compete efficiently in the market to generate value and the return to the investors. In this regard, the banks profitability can be quantitatively measure in relation to the analysis of the leverage ratios, turnover ratio and profitability ratios.

2.3 Review of Legislative Provisions

In this section, the review of legislative framework under which the commercial banks are operating has been discussed. All the commercial banks have to conform to the legislative provisions specified in the "Commercial Bank Act 2063" and the rules and regulation formulated to facilitate the smooth running of commercial banks.

Some of the important rules and regulations affecting the investment policy of commercial banks that have been directed by Nepal Rastra Bank are discussed below:

<u>NRB rules regarding fund mobilization of commercial banks</u>

NRB may establish a legal framework by formulating various rules and regulation to mobilize bank's deposit in different sectors. These directives have direct and indirect impact while making decision in terms of investment and credit to priority sector, deprived sector, CRR, loan loss provision, capital adequacy ratio, interest spread, productive sector investment. The main provisions established by NRB in the form of prudential norms in relevant area are briefly discussed below:

i) **Provision for investment in priority and deprived sector**

NRB has taken a policy of gradual phasing out of the priority sector lending requirement since 2002/03. According to the provision, which effect from the 3rd quarter of FY 1995/96, investment in shares of rural development bank by commercial banks, which used to be counted for the priority sector lending only is now to be included under the deprived sector lending.

"A" licensed institutions are required to lend at least **3%** of their total outstanding loan and advances (including bills purchased and discounted) to the deprived sector. Recently, the priority lending was set at 12% of the loan portfolio. Deprived sector means low income and especially socially backward women, tribes, lower caste, blind, hearing impaired and physically handicapped persons, marginal and small farmers, craft-men, labor and squatters family.

ii) **Cash reserve requirement (CRR)**

All commercial banks must keep certain percentage of total deposits collected from public into central bank which is also called cash reserve

ratio for which banks need liquidity. On the other hand, banks shall maintain minimum cash balance according to legislature to ensure adequate liquidity in order to meet the depositors' demand for cash at any time and to inject the confidence in depositors regarding the safety of their deposited funds. People deposit their precious assets and funds into bank with the faith that banks repay it with guarantee as agreed terms and conditions. So, bank must the public deposit on demand or on expiry of predetermined time period otherwise it leads to the loss of public faith upon banks. Then accountholders rush into bank to withdraw their money deposited.

The "A" Class licensed institution shall maintain liquidity mandatory balance at *5 percent* of their Total Deposit Liabilities. The principal amount paid by the commercial banks against the Government of Nepal/NRB Bonds shall be eligible for the calculation of compulsory cash reserve ratio up to period of receipt of reimbursement.

Proof as to the principal amount paid shall be submitted by the commercial banks at the time of submission of returns on compulsory cash reserve ratio to Nepal Rastra Bank. Where a false statement is found to have been made, a penalty shall be imposed equivalent to the amount applicable on non-fulfillment of the compulsory cash reserve ratio.

iii) Loan classification and loss provision

As per the NRB directives, licensed banks and financial institutions shall classify their loan & advances in accordance with clauses 1 to section 7, as follows:

a) Pass loan: All loans & advances the principal of which are not past due or past due for a period up to 3 months shall be included in this category. Only loans falling under Pass category are termed as "Performing Loan"

b) Substandard loan: All loan & advances the principal of which are past due for a period of more than 3 months and up to 6 months shall be included in this category.

c) Doubtful loan: All loans & advances the principal of which are past due for a period of more than 6 months and up to 1 year shall be included in this category.

d) Loss loan: All loans & advances the principal of which are past due for a period of more than 1 year shall be included in this category.

The respective overdue periods of Pass, Sub-Standard and Doubtful loans hall be considered for higher classification from the next day of the date of expiry of the overdue period provided for each category.

Lending institutions are not restricted from classifying the loan and advances from low risk category to high-risk category. For instance, loans falling under sub-standard may be classified into doubtful or loss and loans falling under doubtful may be classified into loss category.

The loan loss provisioning on the outstanding loans & advances and bills purchased shall be provided on the basis of classification made as per NRB directives, as follows:

Classification of loan	Minimum loan loss provision
Pass	1%
Substandard	25%
Doubtful	50%
Loss	100%

(Source: NRB directives 2008; clause 1 and 8.1)

iv) Directives regarding capital requirement

As per the minimum paid-up capital requirement prescribed by NRB, banks and financial institutions are to be classified as A, B, C, and D and other licenses issued accordingly. The capital adequacy measures and requirements consider that the best way to strengthen financial institutions is to maintain sufficient capital structure according to risk-weighted assets. Capital adequacy requirement has been given greater emphasis and in this regard commercial banks have to follow Basel Accord requiring core capital to be maintained at *5.5% of total risk weighted assets* and total capital should be *11% of the total risk weighted assets*. Commercial banks are directed to increase capital base to *Rs. 200 crore* although previously it was maintained to *Rs. 100 crore*. The commercial banks are said to be well and adequacy capitalized if 11% capital requirement is fulfilled. If not, prompt action is taken in prohibiting dividend payment, transfer funds to capital adjustment, issue of bonus shares and right shares.

v) Directives regarding interest rate spread

The interest rate spread, the difference between interest changed on loan & advances and the interest paid to the depositors, has widened significantly in the aftermath of deregulation in interest rates which has caused lower financial intermediation. Therefore, NRB has required commercial banks to limit interest rate spread between deposit and lending rates to a maximum extent 5%. NRB has also provided commercial banks with new calculation of interest rate spread for certain period recently.

vi) Directives regarding fixation of limit on credit and facilities

Licensed institution may extend to a single borrower or group of related borrowers the amount of *Fund Based* loans & advances upto 25% of core capital and *Non Fund Based* off-balance sheet facilities like letter of credit, guarantees, acceptances, commitment upto 50% of its core capital fund.

vii)   Provision for the Investment in Productive Sector

There are various productive sectors of the country. Nepal being a developing country needs to develop infrastructure and other primary productive sectors like agriculture, industrial, commerce etc. For this, NRB has directed commercial banks to extend at least 40% of their total credit to the productive sectors. Loan to priority sector, agricultural sector, and industrial sectors has to be included in productive sector investment.

2.4 Review of Articles and Journals

Under this heading, effort has been made to examine and review some of related articles and journals published in different economic journals, bulletin of World Bank, dissertation papers, magazines, newspapers and other related books.

F.Mourios, in his discussion paper, "Latin America's Banking System in the 1980s" (F. Moursis, 1990) has concluded that most of the banks concentrated on compliance with central banks rules on reserve requirements, credit allocation and interest rates. While analyzing loan portfolio quality, operating efficiency and soundness of bank, investment management has largely been over looked. The huge losses now find in the bank's portfolio in many developing countries and testimony to the poor quality of this oversight investment function.

He further adds that management in financial institutions has involved inadequate and over optimistic loan appraisal, tax loan recovery, high risk diversification of lending and investment, high risk concentration, connected and insider lending loan mismatching. This has led many banks of developing countries to the failure in 1180's.

Govinda Bahadur Thapa has presented his view that the commercial banks including foreign joint venture banks seem to be doing well in mobilizing

deposits. Likewise, loan and advances of these banks are also increasing. But compared to the high credit needs particularly by the newly emerging industries. The banks still seem to lack adequate funds. The banks are increasing their lending to non-tradition sectors along with the traditional sectors.

Nepal Bank Ltd. and Rastriya Banijya Bank Ltd. are operating with a nominal profit, the later turning towards negative from time to time because of non-recovery of interest. The margin between interest income and interest expenses is declining because of these two local banks in traditional off-balance sheet operations. These banks have not able to increase their income from commission and discount. On the other hand, they have got heavy burned of personal and administrative overheads. Similarly, due to accumulated overdue and defaulting loans, profit position of these banks has been seriously affected.

"Dev Lal Kishi, in his article, concludes that following an introduction of the reforms in the banking sectors as an integrate part of the liberal economic policy, more banks and finance companies have come up as a welcome measure of competition. Slowly and steadily, the two government controlled banks, Nepal Bank Ltd, and Rastriya Banijya Bank have also shown an improvement of non-performing loans and advances are taking steps to adopt improved technology. However, higher economic growth with social justice bringing a significant as envisaged by the HMG/N. (Kishi, 1996:21)

Similarly Ramesh Lal Shrestha in his article "A study on deposits and credits of commercial bank in Nepal" concluded the credit deposit ratio would be 51.30% other things remaining the same in 2004 A.D, which was the lowest under the period of review. So he had strongly recommended that the commercial banks should try to give more credit earning new filed as far as

possible. Otherwise, they night not be able to absorb even its total expenses (Shrestha; 2047:93)

It should be noted that the stability of the banking system could be ensured unless the banking system could be ensured unless and until the banks and financial institutions run in the prudent and sound manner. The liquidity required the economy could be supplied and maintained at the desired level if banks are operate in the sound and proper way. Banks could not maintain their financial health if there are a lot of defaulters on its portfolio of loans and advances. A lot of defaulters in the loan portfolio indicate poor and weak health of the institutions. The high level of non-performing loans (NPL) in the system is an indicator of financial crisis and it should be resolved as soon as possible.

We all know that collection of deposits and making of loan and advances are core function of banks and financial institutions. While collecting the deposits the banks has to provide interest to the depositors, it is lost to the banks. The money collected in the form of deposits is again translated into loans and advances and banks get interest income. On this transformation process banks have a small interest spread from which they have to meet the operating expenses cost of bad debt and a small profit margins. In order to pay the interest to the depositors, they should be regular repayments of principle and interest of loan from the borrowers as per agreed schedule. In order to make this system interrupted banks should have all the loans as performing assets i.e. good loans. Good loans and advances are called performing assets. Banks and financial institutions always try to have almost all the financial assets as performing assets to make them sound sustainable, profitable and healthy within the system. Sometimes, unfavorable internal economic shocks and other discrepancies affect the quality of such assets. Deterioration in the quality of loans and other assets give birth to non-performing loans and ultimately invites the financial crises.

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Rastriya Banijay Bank and Nepal Bank Limited are still suffering from the high level of NPLs problems. In order to strengthen the credit operations and enhance risk skills, the bank is under the control of foreign management teams, credit functions have been strengthen now – a day. The management has given targets to lower own the level of NPA and recover/restructure the problem loans. Due to there efforts made by these management teams, the level of NPL in RBB and NBL is decreasing but it is still at astounding level, "Bhisma Raj Dhungana 2063".

Sharma (2002) in his article, "Banking the future on competition," writes, 'Nepali financial sector (especially the banking sector) has undergone drastic changes in the past one and half decades. One of the most important achievements as a result of the growth in the number of commercial banks in the past liberalization period is in the area of domestic saving. Quantitative growth of the banking sector has positively contributed in raising domestic banking savings, which crossed the 152 billion mark in mid- August, 2000. In addition, deposit GDP ratio also rose from 0.128 to 0.199.

He further adds post liberalization era competition has forced commercial banks to broaden their lending portfolio that has resulted in the expansion of loan extension from the trading and industrial sector. He adds increasing credit flow to both trading and industrial sector and channelize domestic saving into capital investments towards which the contribution of the banking sector cannot be questioned, will ultimately bolster the country's rate of economic growth. In addition, the sector has actually done more than just providing mere safety to small investor's capital.

He has also highlighted that majority of CBs are being established and have operation in urban areas only. He has added that private banks have mushroomed only in urban areas where large volume of banking transaction and activities are possible. According to him, banks are tempted to invest

without proper credit approval and on personal guarantee, whose negative side effects would show true colors only after four or five years. The CBs are also charging higher interest rate on lending.

2.5 Review of Related Thesis

Prior to this thesis, various thesis works has been conducted by some students. Some of them are supposed to be relevant for this study, are presented below.

Mrs. Ramala Bhattarai, in her thesis, "Lending Policy of Commercial Banks in Nepal" (Bhattarai, Ramala, 1978, T.U.) has concluded that efficient utilization of resources is more important than collection of the same. Lower investment means lower capital formation that hampers economic development of the people and the country. So she recommended that banks should give emphasis on efficient utilization of resources.

Similarly, **Mr. N.M Pradhan**, in his thesis, "A Study on investment policy of Nepal Bank Ltd.", (Pradhan, N.M., 1980, T.U.) has emphasized that there is a greater relationship between deposits, loans and advances. His recommendation has granted the loans and advances without its lengthy process. He has suggested enhancing banking transactions upto rural sector of the nation.

Mr.Bhoj Raj Bohara in his thesis had made endeavor to examine the comparative financial performance of NABIL and NIBL in term of their liquidity activity and profitability along with other parameter. He has concluded that bank performance cannot be judge solely in term of profit, as it may have earned profit by maintaining adequate liquidity and safety position. But it should also be evaluated on the ground of the contribution; it has made to the community, government and national economy or on the social and national priority discharged by bank. This means, the banks should come forward with

national priority tasks i.e. more deposit collection, resource mobilization. The tasks are possible when they expand branches, more employment opportunities, service to more customer, developing skills and expertise in local staffs, satisfactions on profit earning and exchange of autonomy provided by them. Following their rules, regulation, instruction directives and priorities can discharge the accountability. (Bohara. 1992:74)

Mr. N.M. Karmacharya, in his thesis," A Study on the Deposit Mobilization by Nepal Bank Ltd." (Karmacharya, N.M., 1980, T.U, has concluded to the utilization side of Nepal Bank Ltd. is weak as compared to the collection of resources. He has mentioned that banks have successfully matained its liquid assets position but couldn't mobilize its resources efficiently. He has suggested to set up more banking branches to increase the deposit collection and long term as well as short-term credit. He has recommended not to consider security factor only but to provide loan to genuine projects without security.

Ms. Samiksha Thapa, on her studies "A comparative study on investment policy of Nepal Bangladesh Bank Limited and other joint venture bank." On her study, the major objectives were to evaluate the liquidity, assets management efficiency profitability and risk position of NBL bank in comparison to NABIL and NIBL to analyze the relationship between loans and advances and total investment with other financial variables of sample banks. To examine the fund mobilization and investment policy of NB Bank through off-balance sheet and on-balance sheet activities in comparison to the other two banks. To study the various risk in investment and to analyze the deposit utilization trend and its projection for next five years of the sample banks. And to provide the suggestion for improving the investment policy of NB bank on the basis of the finding of the analysis.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a plan and systematic way to conduct research. It is a study of methods used in different disciplines. Moreover, it refers to the various sequential steps to adopt by a researcher in studying a problem with certain objectives in view (Kothari, 1989). Research methodology describes the method and proves applied in the entire aspect of the study. It includes general introduction, research design, and sources of data, population & sample and methods of data analysis.

In research methodology, different types of research and their principles, process, methods, techniques and tools are used. This study basically helps to conclude the true and fair position of Nepal Bank Limited, Rastriya Banijya Bank, Nepal Investment Bank Limited and Standard Chartered Bank Limited. To accomplish the goal of the study the research methodology is one of the essential tools which are described in this chapter.

3.2 Research Design

"A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure". (C.R. Kothari, 1989)

Research design serves as a framework for the study, guiding the collection and analysis of the data, the research instruments to be utilized, and the sampling plan to be followed. Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and control variance (Kerlinger, 1986). The research design is thus

an integrated frame that guides the researcher in planning and executing the research works. To achieve the objectives of this study, descriptive cum analytical research design have been used. Financial and statistical tools have been applied to examine facts and descriptive techniques have been adopted to evaluate the investment policy of NBL, RBB, NIBL and SCB.

3.3 Sources of Data

This study is conducted on the basis of secondary data. The data necessary to solve the problem and meet the objectives of this study are obtained from the annual reports of the concerned banks, publications of NRB and from various websites. Supplementary data and information are collected from number of institutions and regulating authorities like NRB, Security Exchange Board, Nepal Stock Exchange Ltd. , Ministry of Finance, budget speech of different fiscal years, economic survey etc. Similarly various data and information are collected from the various periodicals, news letters, economic survey, journals, magazines, souvenir and other published & unpublished reports and documents from various sources.

3.4 Population and sample

There are altogether 26 commercial banks effectively functioning in Nepal. Most of their stocks are traded actively in the stock market. The populations are presented by Table 1.

Table 1.List of Class 'A' Licensed Financial Institutions (Commercial Banks)

S.N	Name of Commercial Bank	Operation Date (A.D)	Paid-up Capital (Rs. In lakh)
1	*Nepal Bank Ltd.(NBL)*	*1937/11/15*	*3804*
2	*Rastriya Banijya Bank(RBB)*	*1966/01/23*	*11723*
3	Nabil Bank Ltd.	1984/07/16	9657
4	*Nepal Investment Bank Ltd.(NIBL)*	*1986/02/27*	*24071*
5	*Standard Chartered Bank Ltd.(SCB)*	*1987/01/30*	*9320*
6	Himalayan Bank Limited	1993/01/18	12162
7	Nepal SBI Bank Limited	1993/07/07	8745
8	Nepal Bangladesh Bank Limited	1993/06/05	18227
9	Everest Bank Limited	1994/10/18	8388
10	Bank of Kathmandu Limited	1995/03/12	8444
11	Nepal Credit and Commerce Bank Limited	1996/10/14	13996
12	Lumbini Bank Limited	1998/07/17	10961
13	Nepal Industrial & Commercial Bank Ltd.	1998/07/21	11405
14	Machhapuchhre Bank Limited	2000/10/03	14791
15	Kumari Bank Limited	2001/04/03	11860
16	Laxmi Bank Limited	2002/04/03	10981
17	Siddhartha Bank Limited	2002/12/24	9522
18	Agriculture Development Bank Ltd.	1968/01/21	107775
19	Global Bank Ltd.	2007/01/02	10000
20	Citizens Bank International Ltd.	2007/06/21	10000
21	Prime Commercial Bank Ltd.	2007/09/24	7000
22	Sun Rise Bank Ltd.	2007/10/12	13375
23	Bank of Asia Nepal Ltd.	2007/10/12	10000
24	Development Credit Bank Ltd.	2001/01/23	16553
25	NMB Bank Ltd.	1996/11/26	14246
26	Kist Merchant Bank Ltd.	2009/05/07	20000

Source: Nepal Rastra Bank, Bank & Financial Statistics, July 2008 & Kantipur: August 31, 2009

From these populations, NBL, RBB, NIBL and SCB are selected as sample for the study. The researcher assumed that these samples represent the whole population.

3.5 Method of Data Analysis

In this study, various financial, statistical and accounting tools have been used in order to achieve the objective of study. Due to the limited time and resources constraint, simple analytical tools such as Karl Pearson's coefficient of correlation and method of least square method are used in the study. Similarly, some strong accounting tools such as ratio analysis and trend analysis have also been used for financial analysis.

The various calculated results obtained through financial, accounting and statistical tools are tabulated under different headings and then, they are compared with each other to interpret the result.

3.5.1 Financial Tools

Financial tools are used to examine the financial strength and weakness of bank. The objective of analysis of the financial position of any firm is to examine its performance by establishing relationship with various components of balance sheet and profit & loss account.

3.5.1.1 Ratio Analysis

The relationship between two accounting figures expressed mathematically is known as a financial ratio. Financial or accounting ratio analysis is a widely and frequently used tool of financial analysis. It establishes the numerical relationship between the two relevant accounting figures derived from the financial statements in the form of quotient, proportion or percentage and based on that, an assessment is made about the financial performance and position of an organization. In other words, a ratio

reflecting a quantitative relationship should help to form qualitative judgment. In this study, some of the relevant financial ratios are used. They are presented into three broad groups:

I. Financial policy measures

    A. Liquidity ratios

II. Operating efficiency measures

    A. Asset management ratios

III. Performance measures

    A. Profitability ratios

    B. Risk ratios

    C. Capital adequacy ratios

    D. Growth ratios

I. Financial Policy Measures

A. Liquidity Ratios

Liquidity ratios are the ratios that provide the quick measure of the liquidity position or the ability of the firm to meet its current obligation. In other words, liquidity ratios are the indicator of short-term solvency or financial strength of the bank. It is the measurement of speed at which a bank's assets can be converted into cash to meet deposits withdrawal and other current obligations. The firm should ensure that it does not suffer from lack of liquidity and also that it does not have excess liquidity. The optimal percentage of deposit should be kept in the bank in the form of cash because if the bank will keeps low amount of deposit in cash, it could not able to pay depositors on time and on the contrary, if the bank keeps greater deposit in cash, it will loose the opportunity cost. Therefore it is necessary to strike of liquidity. The following ratios are evaluated under liquidity ratio:

A. (i) <u>Current Ratio</u>:

Current ratio is the ability for payment of current debt from current assets. It shows the relationship between current assets and current liabilities. Current assets include cash in hand, balance with NRB and bank and

financial institution, money at call or short notice, loan & advances and other assets. Similarly, current liabilities include bills payable, deposits, proposed and dividend payable, income tax liabilities and other liabilities. This ratio is calculated by dividing current assets by current liabilities. It can be presented as:

Current Ratio = $\dfrac{Current\ Assets}{Current\ Liabilities}$

The widely accepted standard of current ratio is 2:1 but such standard depends on circumstances in the case of seasonal nature of business.

A. (ii) Cash and Bank Balance to Total Deposit Ratio:

This ratio also known as cash reserve ratio shows the percentage of deposit maintained as liquid assets. This ratio is maintained to meet any unexpected demands of the depositors. A higher the ratio represents a greater ability to meet any unexpected demand of depositors. If the bank is not able to maintain adequate amount of deposit it cannot operate day to day transactions. Keeping idle cash is not desirable as it blocks the capital. Therefore, this ratio is designed to measure the banks ability to meet the immediate obligation. It is calculated by dividing cash and bank balance by total deposits.

Mathematically,

Cash and Bank Balance to Total Deposit Ratio = $\dfrac{Cash\ \&\ Bank\ Balance}{Total\ Deposits}$

Cash and bank balance includes cash on hand, foreign cash on hand, cheques and other cash items, balance with NRB & other domestic banks and balance held abroad. The total deposit consists of current, fixed, saving, money at call deposit and other deposits.

A. (iii) Cash and Bank Balance to Current Assets Ratio:

This ratio shows the percentage of readily available fund with the bank. It measures the proportion of the most liquid assets among the current

assets of bank. Higher the ratio shows the bank ability to meet demand for cash. It is calculated by dividing cash & bank balance by current assets.

Mathematically,

Cash and Bank Balance to Current Assets Ratio = $\underline{Cash\ \&\ Bank\ Balance}$
                                                          Current Assets

A. (iv) Total Investment to Total Deposit Ratio:

This ratio measures that which banks are more successful in mobilizing their total deposit on investment. Higher the ratio, better the utilization of collected fund and it generates regular income to the banks. It is calculated by dividing investment by total deposits.

Mathematically,

Total Investment to Total Deposit Ratio = $\underline{Total\ Investment}$
                                                    Total Deposit

Total investment includes investment on government securities, govt. bonds, treasury bonds, shares and debentures of other banks and financial institutions and others. The total deposit consists of current, fixed, saving, money at call deposit and other deposits.

II. Operating Efficiency Measures

A. Assets Management Ratios

Assets management or activity ratio measures the effectiveness of the bank's investment decision and the utilization of its resources. It indicates the speed with which assets are being converted or turnover. The greater the rate of turnover or conversion, the more efficient is the management or utilization of assets. Here, some of the ratios are computed to assess the bank's efficiency in utilization of available assets in the following ways:

A. (i) Loan and Advances to Total Deposit Ratio

Loan and advances is one of the major sectors of an investment. This ratio measures to which extent banks are successful to mobilize their deposits fund to earn profit by providing the fund to outsiders in the form of loans and advances. The higher ratio represents the greater efficiency of the

firm in utilizing fund and vice-versa. This can be obtained by dividing loan & advances by total deposits.

Mathematically,

Loan & Advances to Total Deposit Ratio = Loan & Advances
$$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\quad Total\ Deposit$$

Where, loan & advances include loans to employees, government enterprises, private sectors, foreign bills purchase and discount.

A. (ii) Loan & Advances to Total Assets Ratio

Loan & advances is the commercial loan that is mostly secured and major component in total assets, which indicates the ability of bank to canalize its deposits in the form of loan and advances to earn return. This ratio is calculated by dividing loans and advances by total assets. Total assets includes all assets of balance sheet items i.e. current assets, net fixed assets, loan and advances and other miscellaneous assets but excludes off balance sheet items such as letter of credit, letter of guarantee etc.

Mathematically,

Loan & Advances to Total Assets Ratio = Loan & Advances
$$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\quad Total\ Assets$$

A. (iii) Investment on Government Securities to Total Working Fund Ratio

Government security is a risk free security. The bank instead of keeping their funds idle, invest in various government securities in accordance with their investment policy such as invest in treasury bills and development bonds which are liquid in nature as they can be traded at any time. This ratio shows bank's investment on government securities in comparison to total working fund. It is computed by dividing investment on government securities by total working fund.

Mathematically,

Government Securities to Working Fund Ratio = Government Securities
                                                      Total Working Fund

A. (iv) Investment on Shares and Debentures to Total Working Fund Ratio

This ratio shows the bank's investment in shares and debentures in comparison to total working fund and calculated by dividing investment in shares and debentures by total working fund.

Mathematically,

Shares and Debentures to Working Fund Ratio = Shares and Debentures
                                                      Total Working Fund

A. (v) Performing Loan Loss Provision

Performing loan is a loan which had due up to 90 days. This ratio shoes how much the banks are successful in utilizing their assets for the purpose of profit generation. Higher ratio indicates efficiency in utilizing the good loans.

Mathematically,

Performing Loan Ratio (PLR) = Performing Loan
                                      Total Loan

A. (vi) Non-Performing Loan Loss Provision

Loan is said to be non-performing with the due date of more than 90 days. Non performing loan consists of substandard loan, doubtful loans and bad loans. Higher the non performing loan ratio indicates worse management of assets. If the ratio is low, it indicates a favorable credit management position.

Mathematically,

Non-performing Loan Ratio = Non-performing Loan
                                      Total Loan

III. Performance Measures

A. Profitability Ratios

Profit is the different between revenue and expenses over a period of time. Profit is the final result of commercial banks and it will have no future if it is unable to make reasonable profit from its operation. The profitability ratio is calculated to measure the operating efficiency of the company. Besides management of the bank, creditors, shareholders, owners and other stakeholders are also interested in the profitability of the firm can be measured by its profitability ratio. According to Lord Keynes, "profit is the engine that drives the business enterprises." The profit is also important to preserve the existence of business as well as strengthen and expand it. It is notable that higher the profitability ratio, better the financial performance of bank and vice-versa. Profitability ratios are calculated as follows:

(i) Return on Loan & Advances Ratio

This ratio measures how efficiently the bank has employed its resources in the form of loan and advances. It is computed by dividing net profit or loss by loan and advances.

Mathematically,

$$Return\ on\ Loan\ \&\ Advances\ Ratio = \frac{Net\ Profit}{Loan\ \&\ Advances}$$

(ii) Return on Total Working Fund Ratio (ROA)

This ratio also known as return on assets measures the overall profitability of all working funds i.e. total assets. It measures the effectiveness of the banks in using its overall resources. It is the measurement of relationship between net income and total assets. The higher the ratio represents the efficiency of the bank utilizing its overall resources and vice-versa. The ratio of net income to total assets measures the return on total assets, is given as follows:

$$Return\ on\ Total\ Working\ Fund\ Ratio = \frac{Net\ Profit}{Total\ Working\ Fund}$$

(iii) Return on Equity Ratio (ROE)

Return on equity is the ratio of net income to common equity. It is also known as the rate of return on stockholders fund. This ratio measures how efficiently the banks have used the funds of owners. It is calculated by dividing net profit by total equity capital. Total capital includes share capital i.e. ordinary share and preference share capital and shareholders reserve and surpluses.

Mathematically,

$$Return\ on\ Equity = \frac{Net\ Profit}{Total\ Equity}$$

(iv) Return on Investment Ratio

This ratio measures the company's return from investment or the capacity to generate profit from its investment. This ratio is calculated by dividing net profit by total investment. This can be stated as:

$$Return\ on\ Investment\ Ratio = \frac{Net\ Profit}{Total\ Investment}$$

(iv) Interest Earned to Total Asset Ratio

This ratio measures the interest earning capacity of the bank through the efficient utilization of assets. It is computed by dividing total interest earned by total assets.

Mathematically,

$$Total\ Interest\ Earned\ to\ Total\ Assets\ Ratio = \frac{Total\ Interest\ Earned}{Total\ Assets}$$

B. Risk Ratios

Risk taking is the prime business of bank's investment management. The possibility of risk makes bank's investment a challenging task. Bank has to take risk to get return on its investment. The risk taken is compensated by increase in profit. So, this ratio indicates the amount of risk associate with the investment which ultimately influences the banks investment policy.

(i) Credit Risk Ratio

Credit risk ratio measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. It can be obtained by dividing loan & advances by total assets. It helps to check the profitability of loan non-payment or the possibility of loan to go into defaults. Risk of non-repayment loan is known as credit risk.

Mathematically,

$$\text{Credit Risk Ratio} = \frac{\text{Loan \& Advances}}{\text{Total Assets}}$$

(ii) Capital Risk Ratio

Capital risk ratio measures banks ability to attract deposit and inter bank funds. It also determines the level of profit that a bank can earn. The capital risk is directly related to return on equity. Higher the ratios, higher will be the capital risks. It is computed by dividing total share capital to risk-weighted assets. Risk-weighted asset is the minimum amount of capital that is required within banks and other financial institutions, based on a percentage of the assets, weighted by risk. It is the total of all assets held by the bank which are weighted for credit risk according to a formula determined by the central bank. It includes the sum of on-balance sheet and off-balance sheet items.

Mathematically,

$$\text{Capital Risk Ratio} = \frac{\text{Share Capital}}{\text{Risk Weighted Assets}}$$

C. Capital Adequacy Ratio (CAR)

The capital adequacy measures and requirements consider that the best way to strength financial institutions is to maintain sufficient capital structure according to risk-weighted assets. The capital adequacy norms were based on bank peer groups setting target capital ratios on a cost-to-cost basis. It is ratio which determines the capacity of the bank in terms of meeting the time

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liabilities and other risk. CAR protects depositors thereby maintaining confidence in the banking system. The investments of the commercial banks have deep impact in the capital. Therefore, the commercial banks have to maintain the investment policy in such a way that it should also be helpful in maintaining the adequate capital as specified by NRB. Capital fund of bank should be based on the measurement of risks associated with the assets of the bank. The minimum capital fund required to be maintained is based on the risk weighted assets, the bank need to maintain its assets so as to minimize total risk weighted assets or to increase the capital by issuing shares, debentures or generating more profit. So, capital adequacy policy of bank also affect on an investment portfolio. Capital adequacy ratio is also known as capital fund ratio. This ratio measures the total capital fund on the basis of total risk-weighted assets of licensed institutions. The capital fund ratio shall be determined as follows:

$$Capital\ Fund\ Ratio = \frac{Core\ Capital + Supplementary\ Capital}{Sum\ of\ Risk\text{-}Weighted\ Assets} \times 100$$

Where,

Sum of Risk-weighted Assets = Total on-balance sheet risk-weighted assets + Total off-balance sheet risk-weighted items.

On the basis of the types of risks, the assets are classified into five categories by assigning weight of 0%, 10%, 20%, 50% and 100%. The highly secured assets weights are 0% risk and highly unsecured assets weights are 100% risk. So, if the bank has the tendency of investing in 0% risk weighted asset then, the total risk weighted asset will be low and hence the minimum capital require to be maintained can be easily met. But, if the bank takes the risk and invests heavily in 100% risk weighted assets then the total risk weighted assets will be high and hence the bank will have to increase its capital by different means so as to meet the minimum required capital as prescribed by NRB.

3.5.2 Statistical Tools/Analysis

"The word statistics refers either to quantitative information or to a method of dealing with quantitative information (SP Gupta 1986 E-13). After the collection, organization and the presentation of data, the next step is to analyze the data with the aid of statistical tools. Statistical tool or appropriate technique of analysis depends upon the nature of the data and the purpose of the enquiry. In this study, various statistical tools like trend analysis, standard deviation, arithmetic mean, coefficient of variance, coefficient of correlation analysis, etc. have been used to analysis the data.

(i) Arithmetic Mean (Average):

It represents the entire data by a single value. It provides the gist and gives the bird's eye view of the huge mass of unwieldy numerical data. It is calculated as:

$$\overline{X} = \frac{X}{N}$$

Where: $\overline{X}$ = Arithmetic mean

N = Number of observations

X = Sum of observations

(ii) Standard Deviation (S.D):

The measurement of the scatter-ness of the mass of figures in a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. Standard deviation, usually denoted by the letter (sigma: the Greek alphabet) was first suggested by Karl Pearson as a measure of dispersion. It is defined as the positive square root of the arithmetic mean of the squares of the deviations of the given observations from arithmetic mean as is given by:

$$= \sqrt{\frac{1}{n} \int x \ Z \overline{x} Å}$$

Where,

$\bar{x} \, X \dfrac{1}{n}$ x is the arithmetic mean of the given values.

(iii) Coefficient of Variance (C.V):

Standard deviation is only an absolute measure of dispersion, depending upon the units of measurement. The relative measure of dispersion based on standard deviation is called the coefficient of standard. (Gupta, 1993)

It is given by: $CV \, X \dfrac{}{\bar{x}} \mid 100\%$

For comparing the variability of two distributions, CV is computed of each distribution. A distribution with smaller CV is said to less variable or more consistent or more homogeneous or more uniform or more stable than the other and vice versa.

(iv) Trend Analysis (Least Square Method):

A widely and mostly commonly used method to describe the trend is the method of least square. Under this, a trend line is fitted to the data satisfying the conditions. It is used to describe the trend of any variable whether it increases or decreases with the passage of time.

The trend line between the two variables x and y is represented by:

$y_c = a + bx$

Where, $a = \dfrac{y}{n}$ and $b = \dfrac{xy}{x^2}$

Here, y_c is used to designate the trend value to distinguish the actual value. The x variable represents the time, 'a' refers to the y-intercept or value of y_c when x=0 and 'b' is the slope of the trend line. For the trend analysis of different banks, the following heads have been considered:

i. Total deposit analysis

ii. Investment analysis

iii. Loan & advances

iv. Net profit

(v) Karl Pearson's Coefficient of Correlation (r):

One of the widely used mathematical methods of calculating relationship between two variables is the Karl Pearson's correlation coefficient. It is denoted by 'r' and is defined by:

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2}\sqrt{N \sum Y^2 - (\sum Y)^2}}$$

Where,

x = independent variable

y = dependent variable

N = Number of pairs of observation

r = coefficient of correlation

The value of 'r' always lies between (-1) and (+1), and (r = +1) denotes the perfect positive correlation between the two variables and (r = +1) denotes the negative correlation between the two variables.

Probable Error (P.Er.)

It is the measure of testing the reliability of the calculated vale of 'r'. If r be calculated value of r from a sample of n pair of observations, then PE is defined by,

$$P.Er = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

If the value of 'r' is less than 6 PE (r<6P.Er), it is insignificant; perhaps there is no evidence of correlation. If 'r' is greater than 6 PE (r>6P.Er), then, it is significant. The probable error of correlation coefficient id used to determine the limits within which the population correlation coefficient lies. Limits for population correlation coefficient are r ± P.Er.

Calculations of correlation coefficient are as follows:

   i) Coefficient of correlation between deposit and loan & advances.

   ii) Coefficient of correlation between deposit and total investment.

   iii) Coefficient of correlation between deposit and net profit.

CHAPTER-IV

DATA PRESENTATION AND ANALYSIS

This chapter is concerned with the data presentation and analysis of the study. The main purpose of this chapter is to study, evaluate and analysis the major financial performances, which are mainly related to the investment management and fund mobilization of selected commercial banks such as NBL, RBB, NIBL and SCB over the fiscal year 2001/02 to 2007/08. For this purposes, analysis and interpretations are categorized into three headings:
- Financial Analysis
- Statistical Analysis
- Major Findings of the study

4.1 Financial Analysis

Under this heading, only those financial ratios are evaluated and analyzed and then interpretations made which are crucial to obtain the objectives of the study. It includes liquidity ratios, asset management ratios, profitability ratios, risk ratios, capital adequacy ratios and growth ratios.

4.1.1 Liquidity Ratios

i) Current Ratio

Current ratio indicates the ability of the bank to meet its current obligation. The higher is the current ratio, the greater the margin of safety. The current ratio of NBL, RBB, NIBL and SCB has been presented in table 2.

Table-2

Current Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.55	0.57	0.88	0.63
2006/07	0.52	0.54	0.82	0.57
2005/06	0.52	0.51	0.79	0.53
2004/05	0.61	0.66	0.82	0.60
2003/04	0.62	0.63	0.75	0.55
2002/03	0.55	0.58	0.85	0.54
2001/02	0.66	0.65	0.72	0.58
Mean($\overline{X}$)	**0.576**	**0.591**	**0.804**	**0.571**
S.D( )	**0.050**	**0.053**	**0.052**	**0.033**
C.V	**0.088**	**0.089**	**0.064**	**0.057**

(Source: - Annex-1)

Table 2 shows that current ratios of all the selected commercial banks are in the fluctuating trend throughout the review period. The mean current ratio of NIBL is the highest among the four commercial banks i.e. 0.804. The mean ratio of RBB, NBL and SCB are 0.591, 0.576 and 0.571 respectively.

However, the coefficient of variation of SCB is the lowest i.e.0.057. It indicates that SCB is the most consistent among four commercial banks. Similarly, coefficient of variation of NIBL, NBL and RBB are 0.064, 0.088 and 0.089 respectively. RBB has the highest coefficient of variation. It indicates that the RBB is the least consistent among four commercial banks. However, all four banks have less C.V. which denotes that they are stable.

From the above analysis, it can be said that all selected four commercial banks has higher current liabilities than its current assets. The standard of

current ratio is 2:1 for banking and 1:1 for seasonal business. So, it seems that they have not sound liquidity position with respect to current ratio.

ii) Cash and Bank Balance to Total Deposits Ratio (CRR)

This ratio measures the ability of the bank to meet the unanticipated cash. In other words, it measures the percentage of most liquid fund with the bank to make immediate payment. Higher the ratio, the greater will be the ability to meet sudden demand of deposit but it is notable that every high ratio is not desirable since bank has to pay interest on deposits as it maximizes the cost of fund to the bank.

The cash and bank balance to total deposit ratio of NBL, RBB, NIBL and SCB has been presented in table 3.

Table-3

Cash & Bank Balance to Total Deposit Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.16	0.17	0.11	0.14
2006/07	0.19	0.12	0.11	0.15
2005/06	0.20	0.11	0.13	0.14
2004/05	0.19	0.13	0.10	0.17
2003/04	0.19	0.17	0.13	0.20
2002/03	0.13	0.11	0.12	0.17
2001/02	0.24	0.12	0.08	0.18
Mean($\overline{X}$)	**0.186**	**0.133**	**0.111**	**0.164**
S.D( )	**0.032**	**0.024**	**0.016**	**0.021**
C.V	**0.170**	**0.183**	**0.147**	**0.125**

(Source: - Annex 2)

Presently, NRB has prescribed that the "A" class licensed institution shall maintain mandatory balance at 5% of their total deposit liabilities. According to the table the mean CRR of NBL, RBB, NIBL and SCB are 18.6%, 13.3%,

11.1% and 16.4% respectively which refers that all four commercial banks has maintain the CRR ratio higher than the ratio prescribed by NRB. So, it shows they have good liquidity position with regarding to cash & bank balance to total deposit.

However, NBL has maintained higher ratio i.e. 18.6% which is not desirable because it ultimately maximizes the cost of fund and reduces the size of investment. So, NBL has the highest standard deviation as well i.e. 3.2% and NIBL has lowest standard deviation since it has maintained mean CRR only 11.1%. With respect of C.V, SCB has 12.5% C.V which is lowest amount four banks. So, it is more consistent. However RBB has higher C.V i.e. 18.3% which indicates that it is not consistent in maintaining CRR ratio.

iii) Cash & Bank Balance to Current Assets Ratio

This ratio examines the bank's liquidity capacity on the basis of most liquid assets, cash and balance. This ratio reveals the ability of the banks t make the payment of its customer deposits. A high ratio indicates the sound ability to meet their daily requirements of their customer deposits and vice-versa. But both higher and lower ratios are not desirable because if a bank maintains higher ratio, it has to pay interest on deposit and it will lose opportunity cost. On the contrary, if a bank maintains low ratio of cash, it may fall to make the payment for presented cheques by its customers. Thus, an appropriate level of cash and bank balance should be maintained properly.

The table no.4 shows the cash and bank balance of current assets ratio of NBL, RBB, NIBL and SCB.

Table-4

Cash & Bank Balance to Current Assets Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.26	0.26	0.12	0.22
2006/07	0.32	0.18	0.14	0.25
2005/06	0.34	0.19	0.16	0.25
2004/05	0.21	0.12	0.12	0.28
2003/04	0.20	0.17	0.17	0.35
2002/03	0.17	0.12	0.14	0.30
2001/02	0.25	0.11	0.11	0.28
Mean($\overline{X}$)	**0.250**	**0.164**	**0.137**	**0.276**
S.D( )	**0.058**	**0.049**	**0.021**	**0.039**
C.V	**0.232**	**0.300**	**0.150**	**0.141**

(Source: - Annex 3)

From the above table, all four banks have fluctuating trend on cash and bank balance to current asset ratio. NBL has maximum ratio of 34% in the F.Y 2005/06 and minimum in the F.Y 2002/03 is 17%. Similarly the maximum ratio of RBB, NIBL and SCB are 26%, 17% and 35% respectively and minimum ratio are 11%, 11% and 22% respectively. The mean ratio of NBL, RBB, NIBL and SCB are 25%, 16.4%, 13.7% and 27.6% respectively. Standard Chartered Bank Ltd. has the highest mean ratio among the four commercial banks i.e. 27.6% and Nepal Investment Bank Ltd. Has the lowest mean ratio among them i.e. 13.7%.

NBL has more deviation in mean ratio since it has highest S.D i.e. 5.8% and NIBL has least deviation in mean ratio since it has lowest so of 2.1%. However, RBB has the highest C.V i.e. 30%. It indicates that RBB is the least consistent among the four commercial banks. Similarly, SCB has the lowest

C.V. i.e. 14.1%. It indicates that SCB is the most consistent among the four commercial banks.

iv) Investment on Govt. Securities to Total Deposit Ratio

Investment on govt. securities to total deposit ratio reflect the portion of a commercial bank's total deposits, which is invested on various government securities issued by government. More or less, each commercial bank wants to diversify their investment in the lower risk items such as government securities. But more fund investment on government securities by the bank is not preferable to achieve the bank's goal of profit maximization as it does not give more return in comparison to other investments. Table 5 represents the ratio between investment on govt. securities and total deposit.

Table-5

Investment in Govt. Securities to Total Deposit Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.31	0.18	0.09	0.27
2006/07	0.34	0.20	0.13	0.29
2005/06	0.33	0.20	0.13	0.37
2004/05	0.31	0.15	0.14	0.37
2003/04	0.30	0.07	0.17	0.38
2002/03	0.33	0.10	0.05	0.36
2001/02	0.21	0.10	0.05	0.37
Mean($\overline{X}$)	**0.304**	**0.143**	**0.109**	**0.344**
S.D( )	**0.041**	**0.049**	**0.043**	**0.041**
C.V	**0.134**	**0.344**	**0.395**	**0.120**

(Source: - Annex 4)

Table 5 indicates that SCB has higher amount of deposit on govt. securities i.e. 34.4% than NBL, RBB and NIBL in average i.e. 30.4%, 14.3% and 10.9% respectively. It also shows that the investment trend of all four commercial

banks is in fluctuating trend. The C.V of SCB is more consistent than NBL, RBB and NIBL.

v) Total Investment to Total Deposit Ratio

This ratio measures the extent to which the banks are successful in mobilizing the total deposits on investment in different sectors. A high ratio indicates the success in mobilizing the deposit ratio of NBL, RBB, NIBL and SCB.

Table-6

Total Investment to Total Deposit Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.40	0.25	0.20	0.47
2006/07	0.41	0.25	0.27	0.55
2005/06	0.40	0.25	0.30	0.56
2004/05	0.40	0.20	0.28	0.50
2003/04	0.31	0.08	0.34	0.54
2002/03	0.36	0.12	0.22	0.54
2001/02	0.21	0.11	0.44	0.59
Mean($\overline{X}$)	**0.356**	**0.180**	**0.293**	**0.536**
S.D( )	**0.068**	**0.069**	**0.074**	**0.037**
C.V	**0.191**	**0.385**	**0.253**	**0.068**

(Source: - Annex 7)

From the table 6, it is found that the total investment to total deposit of NBL is increasing from F.Y 2001/02 to 2006/07 but it is decreased in F.Y 2007/08. Similarly, in case of RBB, it is increasing trend from F.Y 2001/02 to 2005/06. However, it remains constant at 25% from 2006/07 to 2007/08. In case of NIBL and SCB, the ratios are in fluctuating trend. The mean ratio of NBL, RBB, NIBL and SCB are 35.6%, 18%, 29.3% and 53.6% respectively. SCB has the highest mean ratio i.e. 53.6% and RBB has the lowest mean ratio i.e.

18%. Similarly, SCB has least C.V of 6.8% which refers SCB is most consistent among four banks and RBB has the highest C.V i.e. 38.5% which means RBB is the least consistent among them.

4.1.2 Assets Management Ratio (Activity Ratio)

A commercial bank must be able to manage its assets properly to earn high profit, to satisfy its customers and for its own existence. Assets management ratio is also known as activity ratio indicates the efficiency of the bank with regarding to its resource management under its command.

The following ratios are evaluated and interpreted under this asset management ratio to compare the asset management ability of NBL, RBB, NIBL and SCB.

i) Loan and Advances to Total Deposit Ratio

This ratio measures the extent to which the banks are successful to mobilize their total deposit on loan and advances for profit generation. A high ratio of loan and advances indicates better mobilization of collected deposits and vice-versa. But it should be noted that too high ratio may not be better from its liquidity point of view. The ratio between loan and advances and total deposits of NBL, RBB, NIBL and SCB are shown in table 7.

Table-7

Loan & Advances to Total Deposit Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.32	0.34	0.78	0.46
2006/07	0.28	0.34	0.71	0.43
2005/06	0.27	0.32	0.68	0.39
2004/05	0.23	0.31	0.71	0.42
2003/04	0.25	0.27	0.62	0.30
2002/03	0.23	0.30	0.73	0.30
2001/02	0.25	0.35	0.61	0.37
Mean($\overline{X}$)	**0.261**	**0.319**	**0.691**	**0.381**
S.D( )	**0.029**	**0.026**	**0.056**	**0.058**
C.V	**0.113**	**0.081**	**0.081**	**0.152**

(Source: - Annex 8)

Table – 7 reveals that the mean loan and advances to total deposit ratio of NBL, RBB, NIBL and SCB are 26.1%, 31.9%, 69.1% and 38.1% respectively. Among them mean ratio of NIBL i.e. 69.1% is higher than that of NBL, SCB and RBB. In the contrary, the C.V of RBB & NIBL is quiet less i.e. 8.1% than that of other two banks which refers RBB & NIBL are more stable than of NBL and SCB. The mean ratio of NBL is the least i.e. 26.1% and its C.V is 11.3% .The ratio of NBL is in fluctuating trend in the initial review period and after the F.Y 2005/06, it is in increasing trend. Similarly in case of NIBL and SCB, the ratios are in fluctuating trend in the initial period and from F.Y 2005/06 they are in increasing trend. However, in case of RBB the ratios are in decreasing trend from the F.Y 2001/02 to 2003/04. Then, from F.Y 2004/05, ratios are gradually in increasing trend.

ii) Loan and Advances to Total Assets Ratio

Loan and advance is and important part of total assets. This ratio reflects the extent to which the commercial banks are successful in mobilizing their assets on loans and advances for income generation. A high ratio indicates better in mobilization of funds as loan and advances and vice-versa.

The table no. 8 exhibits the loan and advances to total assets ratio of NBL, RBB, NIBL and SCB.

Table-8

Loan & Advances to Total Assets Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.32	0.38	0.69	0.41
2006/07	0.28	0.37	0.63	0.37
2005/06	0.27	0.37	0.60	0.35
2004/05	0.17	0.24	0.62	0.37
2003/04	0.20	0.24	0.54	0.27
2002/03	0.20	0.27	0.64	0.27
2001/02	0.22	0.30	0.52	0.29
Mean($\overline{\text{X}}$)	**0.237**	**0.310**	**0.606**	**0.333**
S.D( )	**0.050**	**0.058**	**0.054**	**0.052**
C.V	**0.210**	**0.187**	**0.090**	**0.155**

(Source: - Annex 9)

According to the table 8, the mean loan and advances to total assets ratio of NIBL is highest among the selected four commercial banks i.e. 60.6%. On the other hand, SCB, RBB and NBL have mean loan and advances to total assets ratio of 33.3%, 31% and 23.7% respectively. It shows that NBL has the lowest mean ratio.

On the basis of mean ratio, NIBL has mobilized its funds to loans and advances most effectively among remaining three banks. Similarly, SCB and RBB are moderate in mobilizing its assets to loans and advances and NBL is in weak condition to mobilize its total assets as loan and advances. C.V of NIBL is least i.e. 9% which means NIBL is most stable and consistent in fund mobilization in terms of loan and advances, where as; C.V of SCB and RBB are 15.5% and 18.7% respectively and NBL has the highest C.V i.e. 21% among four commercial banks.

From the above analysis, it can be concluded that fund mobilization of NBL in terms of loan and advance with respect to total assets is not satisfactory in comparison to NIBL, SCB and RBB.

iii) Investment in Government Securities to Total Working Fund Ratio

Although the investment on government securities doesn't help the commercial bank to achieve the objective of profit maximization commercial banks seem to be interested to utilize their deposits by purchasing government securities.

The table no. 9 shows the investment on government securities to total working fund ratio.

Table-9

Investment in Govt. Securities to Total Working Fund Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.31	0.20	0.08	0.24
2006/07	0.34	0.22	0.12	0.25
2005/06	0.33	0.23	0.12	0.34
2004/05	0.24	0.11	0.12	0.33
2003/04	0.24	0.06	0.15	0.34
2002/03	0.29	0.10	0.04	0.32
2001/02	0.18	0.09	0.05	0.29
Mean($\overline{X}$)	**0.276**	**0.144**	**0.097**	**0.301**
S.D( )	**0.054**	**0.02**	**0.038**	**0.039**
C.V	**0.195**	**0.139**	**0.392**	**0.129**

(Source: - Annex 10)

The table no. 9 shows the fluctuating trend of investment on government securities to total working fund ratio of all the four commercial bank. The mean, investment on government securities to total working fund ratio are 27.6%, 14.4%, 9.7% and 30.1% respectively. It shows that SCB has invested highest portion of its working fund into government securities i.e. 30.1% and then after NBL, RBB and NIBL respectively. C.V of NBL, RBB, NIBL and SCB are 19.5%, 13.9%, 39.2% and 12.9% respectively. SCB has lowest C.V i.e. 12.9% among four commercial banks and NBL and RBB have moderate C.V i.e. 19.5% and 13.9% respectively; an NIBL has highest C.V i.e. 39.2%

From the above analysis it shows that SCB is most consistent and stable in investing policy on government securities over the review period and NIBL is least consistent and fluctuating in its investment policy on government securities.

iv) Investment on Shares and Debentures to Total Working Fund Ratio

Commercial banks not only invest its total working fund on government securities but also on share and debentures, though the investment on government securities is relatively safer than investment on shares and debentures of other company. Commercial banks are investing on shares and debentures of other companies for the purpose of income generation because higher the risk means higher the return. This ratio shows to what extent the bank has successfully invested it's assets on other company's shares and debentures to generate income higher ratio indicates more portion of investment on shares and debentures .

Table-10 shows the level of investment of working fund on shares and debentures of other banks and companies.

Table-10

Investment in Share & Debentures to Total Working Fund Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.06	0.08	0.10	0.17
2006/07	0.08	0.06	0.12	0.23
2005/06	0.07	0.07	0.15	0.16
2004/05	0.00	0.04	0.13	0.11
2003/04	0.01	0.005	0.16	0.14
2002/03	0.002	0.002	0.15	0.17
2001/02	0.001	0.002	0.01	0.18
Mean($\overline{X}$)	**0.032**	**0.037**	**0.117**	**0.166**
S.D( )	**0.031**	**0.031**	**0.048**	**0.034**
C.V	**0.969**	**0.838**	**0.407**	**0.206**

(Source: - Annex 11)

From the analysis of table 9 and table 10, it seems that selected four commercial banks' investment in risk-free government securities are higher than investment in risky shares and debenture out of its total working fund. The

mean investment in shares and debentures to total working fund ratio of NBL, RBB, NIBL and SCB are 3.2%, 3.7%, 11.7% and 16.6% respectively. The mean ratio of SCB i.e. 16.6% is the highest among four commercials banks. It means SCB has contributed 16.6% of its total working fund into investment on shares and debenture of others banks and financial institutions. Similarly NIBL, RBB and NBL have contributed 11.7%, 3.7% and 3.2% respectively in investment on shares ad debentures out of its total working fund. From other angle, the C.V of SCB is lowest i.e. 20.6% among four commercial banks. It means SCB is more consistent and stable in investing on shares and debentures then after NIBL, RBB and NBL respectively the C.V of which are 40.7%, 83.8% and 96.9% respectively. From above analysis it seems that NBL has the highest C.V so, NBL is not more consistent and stable in investing on share and debentures out of its total working funds.

v) Performing Loan Loss Provision

The ratio of performing loan loss provision describes the quality of assets that a bank is holding. Higher the ratio, higher the quality of assets and their proper utilization of assets on good loan & advances and higher the margin of profit and vice-versa. NRB has directed the commercial banks to classify its loan & advances into four categories of pass sub-standard, doubtful and loss and make the provision of 1, 25, 50 and 100 percent respectively. Pass loans are performing loans. Table 11 shows the performing loan loss provision of NBL, RBB, NIBL and SCB.

Table-11

Performing Loan Loss Provision

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.91	0.78	0.99	0.99
2006/07	0.87	0.72	0.98	0.98
2005/06	0.82	0.63	0.98	0.98
2004/05	0.50	0.49	0.97	0.97
2003/04	0.46	0.42	0.98	0.96
2002/03	0.40	0.40	0.98	0.96
2001/02	0.30	0.21	0.98	0.98
Mean($\overline{X}$)	**0.609**	**0.521**	**0.980**	**0.974**
S.D( )	**0.232**	**0.186**	**0.005**	**0.010**
C.V	**0.381**	**0.356**	**0.005**	**0.011**

(Source: - Annex 5)

While the researcher analyzes the performing loan loss provision in table-11, all four commercial banks are maintaining the ratio in the increasing trend. This shows positive impact on the performance of banks as higher the performing loan loss provision ratio indicate the higher efficiency in utilizing the good loans. The mean ratio of NBL, RBB, NIBL and SCB are 60.9%, 52.1%, 98% and 97.4% respectively and C.V. are 38.1%, 35.6%, 0.5% and 1.1% respectively. The mean ratio of NIBL is the highest i.e. 98% and lowest C.V of 0.5%. It reflects that performing loan position of NIBL is in the most satisfactory condition among the four banks. The activity position of SCB is also satisfactory since its mean ratio is 97.4% and C.V is 1.1% only. However the performing loan loss provision of NBL and RBB are not satisfactory and the C.V of both of them are also very higher in comparison to NIBL and SCB.

vi) Non-performing Loan Loss Provision

Sub-standard, doubtful and loss loan are categorized as non-performing loan. Higher the provision for loan loss reflects the increasing the probability of non-performing loans in the volume of total loan & advances. Loan loss provision on the other hand signifies the cushion against future contingency created in the total volume of loan & advances. The high ratio signifies the relatively more risky assets in the volume of loan & advances.

Table-12 shows the trend of non-performing loan loss provision.

Table-12

Non-Performing Loan Loss Provision

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.09	0.22	0.01	0.01
2006/07	0.13	0.28	0.02	0.02
2005/06	0.18	0.37	0.02	0.02
2004/05	0.50	0.51	0.03	0.03
2003/04	0.54	0.58	0.02	0.04
2002/03	0.60	0.60	0.02	0.04
2001/02	0.70	0.79	0.02	0.02
Mean($\overline{X}$)	**0.391**	**0.479**	**0.020**	**0.026**
S.D( )	**0.232**	**0.186**	**0.005**	**0.010**
C.V	**0.592**	**0.388**	**0.267**	**0.408**

(Source: - Annex 6)

The figure tabulated in table-12 explains that NBL and RBB both have drastic decreasing trend in the ratio of non-performing loan within the review period which shows good utilization of their loan and proper management of assets. In case of NIBL and SCB, both have consistent ratio and slightly fluctuating ratios during the review period. Both banks non-performing loans are at 2% in F.Y 2001/02 and they improve the ratio bringing it at 1% in F.Y

2007/08. It means NIBL and SCB both seem to be cut throat competitors in sound utilization of their assets into good loan & advances. The mean ratio of NBL, RBB, NIBL and SCB are 39.1%, 47.9%, 2% and 2.6% respectively and C.V are 59.2%, 38.8%, 26.7% and 40.8% respectively. The standard deviation of NBL, RBB, NIBL and SCB are 23.2%, 18.6%, 0.5% and 1% respectively. From this analysis, NIBL is in a very excellent in minimizing non-performing loss because its mean ratio, C.V and deviation of ratio seems to be lowest among four commercial banks. SCB is also in satisfactory condition. However, even though the non-performing loan loss provision of NBL and RBB are in decreasing trend, they aren't in satisfactory condition in comparison to NIBL and SCB.

4.1.3 Profitability Ratios

Profitability ratio measures the efficiency of banks and any other institution in terms of profit. Sufficient profit is must to have good liquidity, to grab investment opportunities, to expand banking transactions, to finance in development fund, to overcome the future contingencies, to meet the internal obligation of a bank etc. So, higher the profitability ratios, the greater will be the efficiency of the bank.

The following ratios are evaluated and interpreted under profitability ratios, which compare the efficiency of NBL, RBB, NIBL and SCB.

i) Return on Loan & Advances

This ratio measures the earning capacity of commercial banks on its' fund mobilized on loan & advances. A high ratio indicates a high success to mobilize fund as loan and advances and vice-versa.

Table-13

Return on Loan & Advances

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.018	0.09	0.026	0.06
2006/07	0.021	0.10	0.029	0.066
2005/06	0.12	0.109	0.027	0.074
2004/05	0.21	0.099	0.023	0.066
2003/04	0.08	0.096	0.021	0.084
2002/03	-0.03	-0.41	0.020	0.089
2001/02	-0.36	-0.52	0.022	0.087
Mean($\bar{X}$)	**0.008**	**-0.061**	**0.024**	**0.075**
S.D( )	**0.167**	**0.257**	**0.003**	**0.011**
C.V	**19.836**	**-4.217**	**0.130**	**0.143**

(Source: - Annex 12)

Table 13 shows the fluctuating trend of return on loan and advances ratio of NBL, RBB, NIBL and SCB. NBL has the maximum ratio of 21% in the F.Y 2004/05 and minimum ratio is -3.6% in the F.Y 2001/02. Similarly, the maximum ratio of RBB, NIBL and SCB are 10.9%, 2.9% and 8.9% respectively in the F.Y 2005/06, 2006/07 and 2002/03 respectively. The mean ratio of NBL, RBB, NIBL and SCB are 0.8%, -6.1%, 2.4% and 7.5% respectively and C.V of them is 19.836, -4.217, 0.13 and 0.143 respectively. From the analysis, SCB has the highest mean ratio of 7.5%. So, SCB has been most effectively utilizing its assets as loan and advances in generating profit. NIBL has moderate mean ratio. NBL has very low mean ratio but RBB has negative mean ratio. So, RBB is not in good condition on the basis of return on loan & advances. On the basis of C.V, NIBL is more consistent and stable on return on loan and advances than SCB, NBL and RBB.

ii) Return on Total Working Fund (ROA)

This ratio measures the overall profitability secured by total working fund. Table – 14 reflects the ratio of return on total working fund.

Table-14

Return on Total Working Fund

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.006	0.034	0.02	0.03
2006/07	0.006	0.037	0.02	0.02
2005/06	0.034	0.04	0.02	0.03
2004/05	0.037	0.023	0.01	0.03
2003/04	0.016	0.023	0.01	0.02
2002/03	-0.01	-0.11	0.01	0.02
2001/02	-0.08	-0.16	0.01	0.03
Mean($\overline{X}$)	**0.001**	**-0.016**	**0.015**	**0.025**
S.D( )	**0.037**	**0.077**	**0.003**	**0.001**
C.V	**28.413**	**-4.744**	**0.178**	**0.042**

(Source: - Annex 13)

The mean ratio of NBL, RBB, NIBL and SCB are 0.1%, 1.6%, 1.5% and 2.5% respectively. C.V of them is 28.413, -4.744, 0.178 and 0.042 respectively. Table-14 indicates that mean ratio and C.V of SCB is the best among the four commercial banks. Hence, it is cleared that SCB has better profitability by effective utilization of total working fund than that of NIBL, NBL and RBB.

iii) Return on Equity

It is a measure of profitability of the bank in respect of the utilization of total shareholder's fund. It includes equity share capital, preference share capital, share premium, retained profit.

Table-15

Return on Equity

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	-0.04	-0.11	0.26	0.33
2006/07	-0.04	-0.10	0.27	0.33
2005/06	-0.19	-0.08	0.25	0.38
2004/05	-0.23	-0.07	0.20	0.34
2003/04	-0.08	-0.05	0.21	0.36
2002/03	0.03	0.22	0.18	0.37
2001/02	0.32	0.41	0.11	0.50
Mean($\overline{X}$)	**-0.033**	**0.031**	**0.211**	**0.372**
S.D( )	**0.167**	**0.187**	**0.052**	**0.055**
C.V	**-5.071**	**5.959**	**0.244**	**0.149**

(Source: - Annex 14)

Table -15 shows the return on equity of NBL, RBB, NIBL and SCB. The mean ratio of return on equity of NBL, RBB, NIBL and SCB are -3.3%, 3.1%, 21.1% and 37.2% respectively. This indicates the mean ratio of SCB is higher than that of NIBL, RBB and NBL. It means SCB is more effective in shareholder's fund mobilization in generating income of the bank than other three banks over the 7 years of study period. It seems that the ratio of return on equity of NBL and RBB are in negative. So, they are in worst condition in utilization of shareholder's fund. However, NIBL is in moderate condition and its ratios are in fluctuating trend over the review period. C.V of SCB is also lowest among four commercial banks. So, SCB is more consistent and stable in utilizing its equity for maximizing profitability. On the basis of mean ratio, NBL should improve the ratio of return on equity.

iv) Return on Investment Ratio

This ratio measures the capacity of the bank to generate profit from it's investment in different sectors. Return will be higher if the investment diversification and portfolio has been effectively managed.

Table-16 shows the return on investment ratio of NBL, RBB, NIBL and SCB.

Table-16

Return on Investment Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.014	0.12	0.10	0.06
2006/07	0.014	0.13	0.08	0.05
2005/06	0.08	0.14	0.06	0.05
2004/05	0.12	0.16	0.06	0.06
2003/04	0.06	0.33	0.04	0.05
2002/03	-0.02	-1.05	0.07	0.05
2001/02	-0.43	-1.70	0.03	0.05
Mean($\overline{\text{X}}$)	**-0.023**	**-0.267**	**0.063**	**0.053**
S.D( )	**0.172**	**0.725**	**0.022**	**0.005**
C.V	**-7.419**	**-2.714**	**0.348**	**0.085**

(Source: - Annex 15)

The figures of table 16 entails that NBL and RBB have increasing trend till the F.Y 2004/05 and 2003/04 respectively and thereafter ratio of NBL is decreasing in F.Y 2005/06 and remains constant at 1.4% from 2006/07 to 2007/08. The ratio of RBB is also in decreasing trend from 2003/04 to 2007/08. The ratio of NIBL is in the fluctuating trend from 2001/02 to 2003/04 and it remains constant in 2004/05 and 2005/06 and thereafter it is in increasing trend. However, the ratio of SCB remains constant at 5% from 2001/02 to 2003/04 but thereafter it is in fluctuating trend. The mean ratio of NBL, RBB,

NIBL and SCB are -2.3%, -26.7%, 6.3% and 5.3% respectively. On the basis of mean ratio, NIBL has achieved highest return on investment i.e. 6.3% among four banks. SCB has 5.3% mean return on investment which is moderate return on investment. However, NBL and RBB have negative return on investment. It is due to the heavy loss in initial review period i.e. in the F.Y 2001/02 and 2002/03.

v) Total Interest Earned to Total Working Fund Ratio

This ratio depicts the extent on which the banks are successful in mobilizing their total assets to generate high income as interest. This ratio actually reveals the earning capacity of a commercial bank by mobilizing its' working fund. Higher ratio implies better performance of the bank in terms of interest earning on its' total working fund.

Table-17

Interest Earned to Total Assets Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.05	0.05	0.06	0.05
2006/07	0.05	0.05	0.06	0.05
2005/06	0.06	0.06	0.05	0.05
2004/05	0.04	0.04	0.05	0.05
2003/04	0.04	0.05	0.06	0.04
2002/03	0.06	0.05	0.05	0.05
2001/02	0.04	0.04	0.07	0.05
Mean($\overline{X}$)	**0.049**	**0.049**	**0.057**	**0.049**
S.D( )	**0.008**	**0.006**	**0.007**	**0.003**
C.V	**0.171**	**0.132**	**0.122**	**0.072**

(Source: - Annex 16)

Table 17 shows the total interest earned to total working fund ratio of NBL, RBB, NIBL and SCB. The ratios of these four banks are in slightly fluctuating trend. However, the ratios are in between 4% to 7%. The mean ratio of NBL,

RBB, NIBL and SCB are 4.9%, 4.9%, 5.7% and 4.9% respectively. The C.V of them are 17.1%, 13.2%, 12.2% and 7.2% respectively. On the basis of mean, NIBL has highest yield of interest by mobilizing its total working fund. However, on the basis of C.V, SCB is more stable and consistent in earning interest by utilizing total working fund rather than NIBL, RBB and NBL. NBL has more variation in interest earned since it has highest standard deviation i.e. 8% and highest C.V i.e. 17.2%.

4.1.4 Risk Ratios

Risk is a variation in return. It is always associated with return. If there is return, risk will definitely be there. Higher the risk, higher will be the return. Risk is very closely associated with investment. A bank is ready to accept high risk if it expects high return on its investment. Risk has made the investment a very challenging job.

i) Capital Risk Ratio

A bank must maintain adequate capital in relation to the nature and condition of its assets, deposit liabilities and other corporate responsibilities. Capital risk ratio measures bank's ability to attract deposits and inter bank fund. It also determines the level of profit of the bank which it can earn. If a bank choose to make high capital risk, its return on equity will be higher and vice-versa.

The table no. 18 shows the capital risk ratio of NBL, RBB, NIBL and SCB.

Table-18

Capital Risk Ratio

Fiscal Year	NBL	RBB	NIBL	SCB
2007/08	0.02	0.03	0.03	0.03
2006/07	0.02	0.03	0.04	0.03
2005/06	0.02	-0.03	0.03	0.03
2004/05	0.01	0.02	0.04	0.04
2003/04	0.01	0.02	0.03	0.04
2002/03	0.01	-0.02	0.04	0.03
2001/02	0.01	0.03	0.03	0.03
Mean($\overline{X}$)	**0.014**	**0.011**	**0.034**	**0.033**
S.D( )	**0.005**	**0.024**	**0.005**	**0.005**
C.V	**0.346**	**2.062**	**0.144**	**0.137**

(Source: - Annex 17)

Table-18 provides the capital risk ratio of NBL, RBB, NIBL and SCB during 7 years of study period. The mean capital risk ratio of NBL, RBB, NIBL and SCB are 1.4%, 1.1%, 3.4% and 3.3% respectively. It shows that NIBL has the highest capital risk ratio. Its capital risk ratio alternatively varies from 3% to 4%. The SD and CV of NIBL are 5% and 14.4% respectively.

4.1.5 Growth Ratio

The average growth rate of deposits, loan & advances, total investment and net profit of NBL, RBB, NIBL and SCB during the seven years of study period are presented by Table Nos. 19, 20, 21 and 22 respectively.

i) Growth Rate of Total Deposit

The growth rate of total deposit of NBL, RBB, NIBL and SCB are presented in table 19 and figure 9. The average growth rate of NBL, RBB, NIBL and SCB are 2.99%, 6.92%, 43.63% and 11.57% respectively. The growth rate of total deposit of NBL is in slightly increasing trend from F.Y 2001/02 to

2004/05. However, in F.Y 2005/06 it has been decreased by 2.9%. Then, it has been in increasing trend from F.Y2006/07 to 2007/08.

Table-19

Growth Rate of Total Deposit   Rs. in million

F.Y Bank	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02	Average Growth
NBL	41829	39014	35830	35934	35735	35014	34265	2.99 %
RBB	57971	50464	46195	43016	40867	39402	38993	6.92%
NIBL	34452	24489	18297	14255	11525	7923	4175	43.63%
SCB	29744	24647	23061	19363	21161	18756	15836	11.57%

(Source: - Annex 18-A)

The growth rate of total deposits of RBB and NIBL is in increasing trend. NIBL has obtained rapid growth in total deposit among the four commercial banks. It has the highest growth rate of total deposit i.e. 43.63%. The growth rate of total deposit of SCB is also in increasing trend except in F.Y 2004/05. In F.Y 2004/05, the deposit of SCB has been decreased by 8.5%.
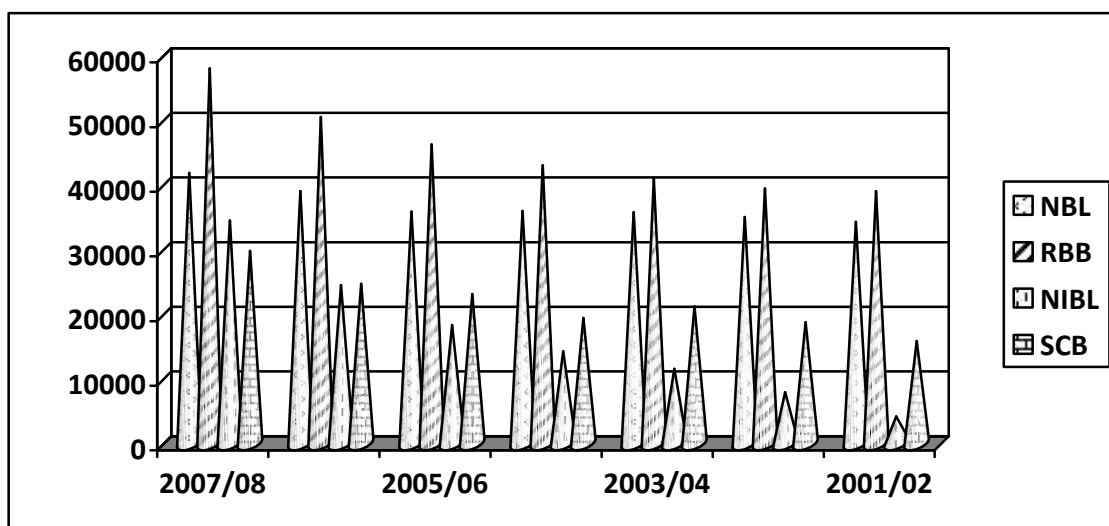
Figure 9: - Growth Rate of Total Deposits of NBL, RBB, NIBL and SCB

ii) Growth Rate of Investment

Table 20 and figure 10 indicate the growth rate of investment of NBL, RBB, NIBL and SCB. On the basis of table 20, the average growth rate of

investment of NBL, RBB, NIBL and SCB are 6.82%, 35.05%, 31.02% and 7.87% respectively.

Table 20

Growth Rate of Investment   Rs. in million

F.Y Bank	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02	Average Growth
NBL	16571	16072	14490	14199	11005	12448	7151	6.82 %
RBB	14543	12650	11555	8416	3117	4623	4159	35.05%
NIBL	6874	6506	5603	3934	3862	1705	1822	31.02%
SCB	13903	13553	12847	9703	11360	10216	9276	7.87%

(Source: - 18-B)

RBB has the highest average growth rate of investment i.e. 35.05% and NBL has the lowest average growth rate of investment i.e. 6.82%.
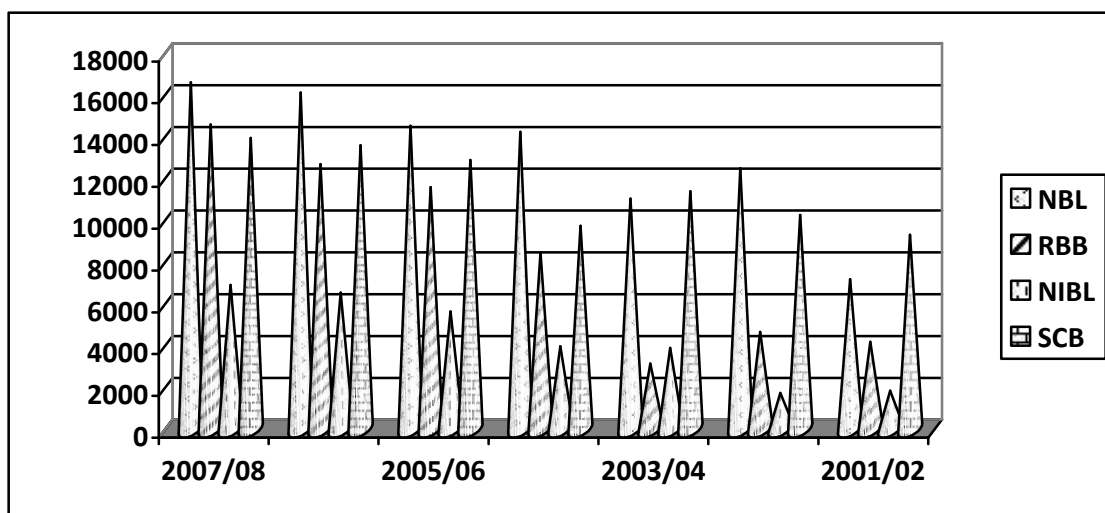
Figure:-10 Growth Rate of Investment of NBL, RBB, NIBL and SCB

iii) Growth Rate of Loans & Advances

Loan & advances is the major factor which indicates the ability of bank to utilize its deposits in the form of loan & advances to earn high return.. The growth rate of loans & advances of NBL, RBB, NIBL and SCB are presented in table 21 and figure 11. The average growth rate of NBL, RBB, NIBL and SCB are 7.87%, 9.71%, 51.37% and 15.98% respectively.

Table 21

Growth Rate of Loans & Advances   Rs. in million

F.Y Bank	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02	Average Growth
NBL	13251	11058	9756	8219	8882	7971	8638	7.87 %
RBB	19816	17006	14634	13431	10831	11679	13690	9.71%
NIBL	26997	17286	12776	10126	7130	5772	2564	51.37%
SCB	13718	10503	8935	8143	6410	5696	5788	15.98%

(Source: 18-C)

On the basis of average growth rate of loan & advances, NIBL has the highest growth rate among the other three commercial banks i.e. 51.37% and its growth rate is continuously is in increasing trend. However, the growth rate of NBL is very poor in comparison to NIBL, SCB & RBB. It has been fluctuating between Rs. 8638 million and Rs.13251 million. It has been increasing since F.Y 2005/06. RBB has also decreasing growth rate of loan & advances in the initial stage but it has been increasing since F.Y 2004/05. SCB has also in gradual improvement in its growth rate of loan & advances since F.Y 2003/2002.
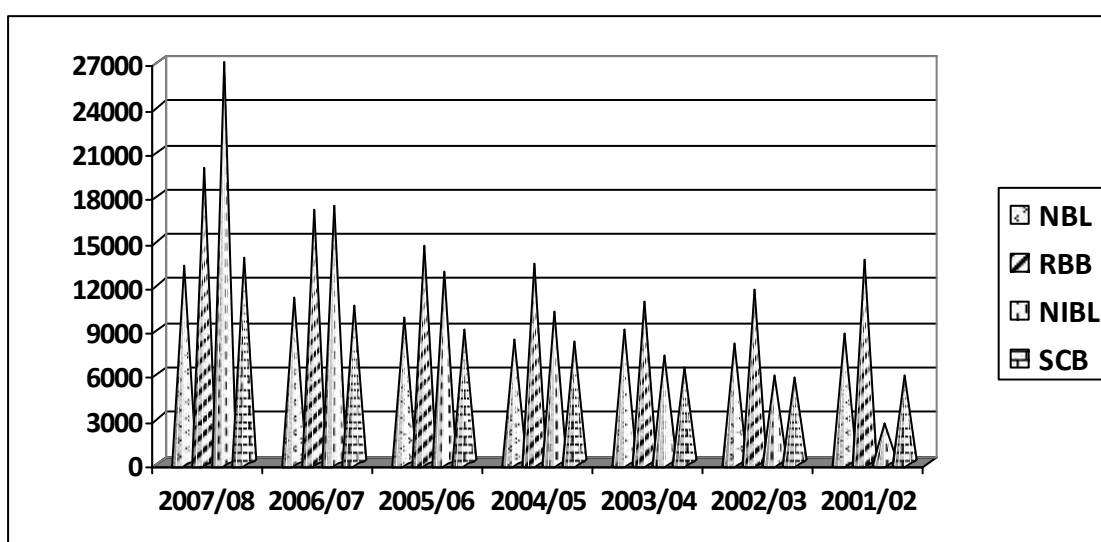
Figure11:- Growth Rate of Loans & Advances of NBL, RBB, NIBL and SCB

iv) Growth Rate of Net Profit

Net profit is the major element of any banks or companies. On the basis of net profit, the success or failure of the bank is measured. Table 22 and figure 12 indicates the growth rate of net of four commercial banks. The average growth rate of NBL, RBB, NIBL and SCB are 118.75%, 24.73%, 53.38% and 9.22% respectively. The growth of net profit of NBL is in fluctuating trend. In F.Y 2001/02, NBL has been suffering from huge losses i.e. 3071 million. The loss is decreased to 251 million in 2002/03.

Table 22

Growth Rate of Net Profit   **Rs. in million**

F.Y Bank	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02	Average Growth
NBL	239	227	-607	1730	710	-251	-3071	118.75%
RBB	1770	1697	1591	1323	1040	-4839	-7068	24.73%
NIBL	696	502	350.39	232	153	116.49	57	53.38%
SCB	819	619	659	536	537	507	505	9.22%

(Source: - 18-D)

Then after, NBL is dramatically successful to increase its profit in 2003/04 and 2004/05. In 2005/06 NBL has been also suffering from loss. However, from 2006/07, NBL has gradually successful in earning profit. RBB and SCB have also in increasing trend. In case of RBB, it has been suffering from heavy losses in initial period of the study i.e. from 2001/02 to 2003/02. After then, it is continuously earning profit in increasing trend. NIBL is very good condition in term of earning profit because NIBL is earning substantial net profit over its review period. SCB has also earning positive net profit over its review period. However, net profit of SCB has been in fluctuating trend.
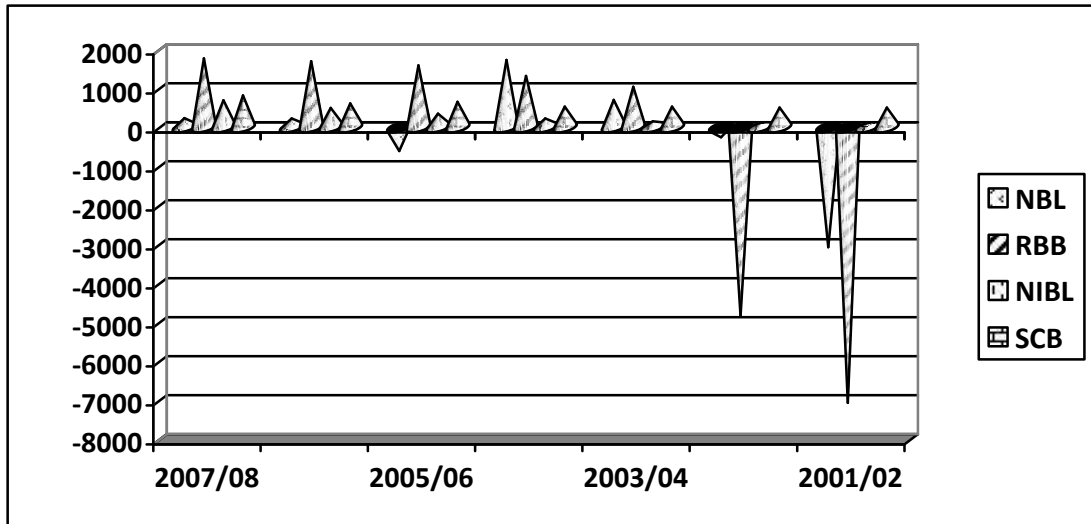
Figure: - 12 Growth Rate of Net Profit of NBL, RBB, NIBL and SCB

4.2 Statistical Tools/Analysis

Under this chapter, some statistical tools are used to achieve the objectives of the study. Following statistical tools are used for this purpose.

i) Trend Analysis (Least Square Method)

Trend analysis plays an important role in the analysis and interpretation of financial statement. Trend in general terms, signifies a tendency. It helps in forecasting and planning future operation. Trend analysis is a statistical tool, which shows the previous trend of the financial performance and forecasts the future financial results of the firms. Each and every financial institution collects deposits and utilizes it by granting loans and advances and investing in government securities and share and debenture to get profit. Trend analysis of different banks have been considered there to analyze and forecast the trend of deposits, trend of loans & advances, trend of investment and trend of net profit for the given 10 year period.

a) Trend Analysis of Total Deposit

Table 23 and figure 13 show the trend analysis of total deposit of NBL, RBB, NIBL and SCB during 10 years period from 2001/02 to 2010/11. From

the table 23, it is cleared that the total deposit of NBL, RBB, NIBL and SCB are in increasing trend.

Table 23

Trend Value of Total Deposit   **(Rs. in million)**

F.Y Bank	NBL	RBB	NIBL	SCB
2010/11	43400.21	63355.28	44684.79	33668.14
2009/10	42300.68	60341.5	39993.18	31689.36
2008/09	41201.14	57327.71	35301.57	29710.57
2007/08	40101.61	54313.93	30609.96	27731.79
2006/07	39002.67	51300.14	25918.36	25753
2005/06	37902.54	48286.36	21226.75	23774.21
2004/05	36804	45272.57	16535.14	21795.43
2003/04	35703.46	42258.79	11843.54	19816.64
2002/03	34603.93	39245	7151.93	17837.86
2001/02	33504.39	36231.21	2460.32	15859.07

(Source: Annex 19-A)

The table 23 can be shown graphically as follows:

Figure: - 13
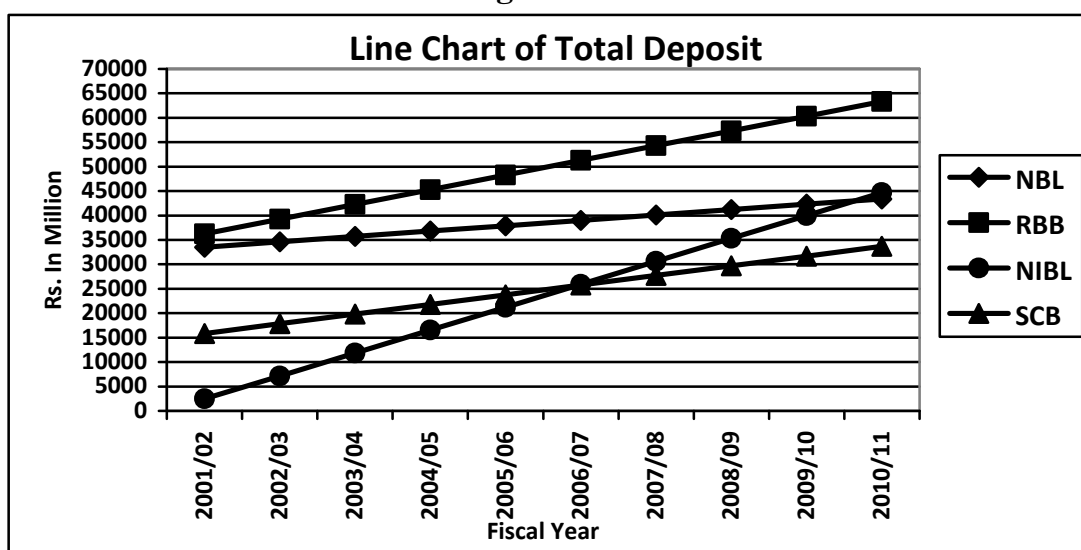
Table 23 and figure 13 show that the deposits of all the four banks have the increasing trend. If other things remaining the same, the total deposits of RBB will be highest in 2010/11 among four selected banks i.e. 63355.28 million. The deposits of NIBL will be in the second position i.e. 44684.79 million, NBL will be in third position i.e. 43400.21 million and NABIL will be fourth position among the selected commercial banks i.e. 33668.14 million.

b) Trend Analysis of Investment

The table 24 shows the trend value of investment for 10 years from 2001/02 to 2010/11 of NBL, RBB, NIBL and SCB.

Table 24

Trend Value of Investment   **(Rs. in million)**

F.Y Bank	NBL	RBB	NIBL	SCB
2010/11	21489.36	20361.28	10007.78	16274.43
2009/10	20096.75	18374	9061.39	15487.21
2008/09	18704.14	16386.71	8115	14700
2007/08	17311.54	14399.43	7168.61	13912.79
2006/07	15918.93	12412.14	6222.21	13125.57
2005/06	14526.32	10424.86	5275.82	12338.36
2004/05	13133.71	8437.57	4329.43	11551.14
2003/04	11741.11	6450.29	3383.04	10763.93
2002/03	10348.5	4463	2436.64	9976.71
2001/02	8955.89	2475.71	1490.25	9189.5

(Source: Annex 19-B)

The graphically presentation of table 24 is as follows:-

Figure: - 14
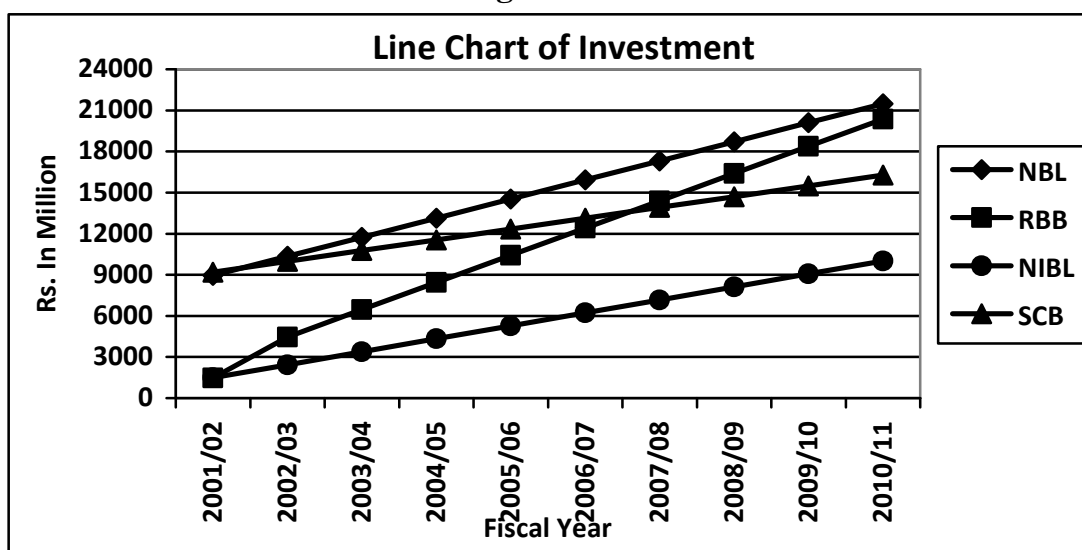
Table 24 and figure 14 show that the investment of all the four commercial banks has the increasing trend over the ten years period. If other thing remains the same, the total investment of NBL will be the highest in 2010/11 among the four selected banks i.e. 21489.36 million. The investment of RBB will be in the second position i.e.20361.28 million, SCB will be in the third position i.e. 16274.43 million and NIBL will be in the fourth position i.e. 10007.78 million among the selected commercial banks.

c) Trend Analysis of Loan & Advances

The table 25 and figure 15 shows the trend value of loan & advances of NBL, RBB, NIBL and SCB for 10 years period from 2001/02 to 2010/11.

Table: - 25

Trend Value of Loan & advances   (Rs. in million)

F.Y Bank	NBL	RBB	NIBL	SCB
2010/11	14157.93	21477.07	33658.64	16156
2009/10	13411.96	20304.39	30016.75	14873.71
2008/09	12666	19131.71	26374.86	13589.43
2007/08	11920.04	17959.04	22732.96	12306.14
2006/07	11174.07	16786.36	19091.07	11022.86
2005/06	10428.11	15613.68	15449.18	9739.57
2004/05	9682.14	14441	11807.29	8456.29
2003/04	8936.18	13268.32	8165.39	7173
2002/03	8190.21	12095.64	4523.5	5889.71
2001/02	7444.25	10922.96	881.61	4606.43

(Source: Annex 19-C)

The table 25 can be shown graphically as follows:

Figure: - 15
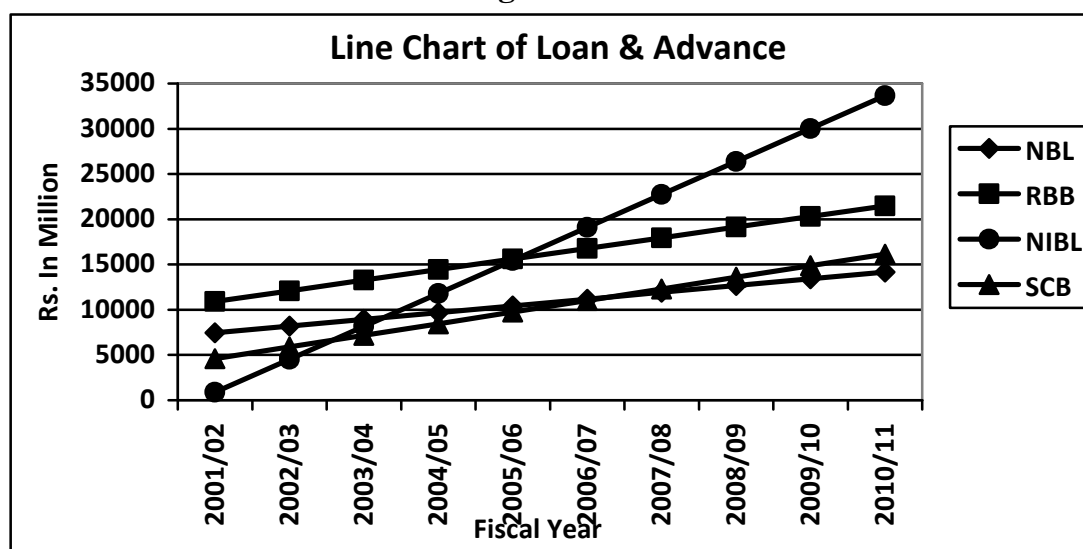
Table 25 & fig. 15 show that the loans & advances of all the four commercial banks have the increasing trend if other things remaining the same. The loans & advances NIBL will be the highest i.e. 33658.64 million in

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2010/11 among the four selected banks. The loans & advances of RBB will be in the second position i.e. 21477.07million, SCB will be in third position i.e. 16156 million and NBL will be in fourth position i.e. 14157.93 million among the selected four commercial banks.

d) Trend Analysis of Net Profit

The table 26 and figure 16 shows the trend value of Net Profit of NBL, RBB, NIBL and SCB for 10 years period from 2001/02 to 2010/11.

Table: - 26

Trend Value of Net Profit (Rs. in million)

F.Y Bank	NBL	RBB	NIBL	SCB
2010/11	2552.21	7959.93	919.29	914.57
2009/10	2145.68	6526.46	816.24	863.43
2008/09	1739.14	5093	713.19	812.29
2007/08	1332.61	3659.54	610.14	761.14
2006/07	926.07	2226.67	507.08	710
2005/06	519.54	792.61	404.04	658.86
2004/05	113	-640.86	300.98	607.71
2003/04	-293.54	-2074.32	197.93	556.57
2002/03	-700.07	-3507.79	94.88	505.43
2001/02	-1106.61	-4941.25	-8.17	454.29

(Source: Annex 19-D)

Table 26 & figure 16 show that the net profits of all the four banks have in increasing trend. In the initial period of review period i.e. 2001/02, both the stated owned banks i.e. NBL and RBB have been suffering from huge losses. In case of NBL it continues till 2003/04 and in case of RBB it continues till 2004/05. Then after, both the banks are successful to earn substantial profit. NIBL is also suffering from loss in F.Y 2001/02. However, it is a also successful to earn profit in succeeding years in increasing trend. In case of

SCB, it is consistently earning profit over its review period i.e 2001/02 to 2007/08.

The graphically presentation of table 26 is as follows:-

Figure:-16
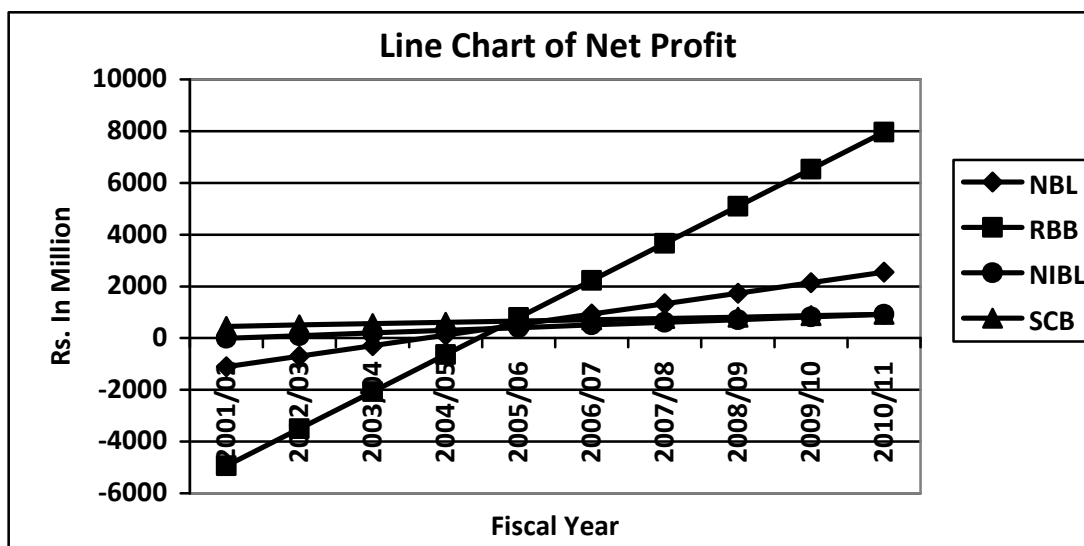
If other things remaining the same, the net profit of RBB will be the highest in 2010/11 among the four selected banks i.e. 7959.93 million. The net profit of NBL will be in the second position i.e. 2552.21 million, NIBL will be in the third position i.e. 919.29 million and SCB will be in fourth position i.e. 914.57 million in F.Y 2010/11 among the selected commercial banks.

ii) Karl Pearson's Coefficient of Correlation

It measures the degree of association between the two variables i.e. one dependent and other independent. Coefficient of correlation interprets and identifies the relationship between two or more than two variables. It measures that the two variables are positively or negatively correlated. For this purpose Karl Pearson's coefficient of correlation has been used. Under this topic, this study tries to find out relationship between the following variables:

a) Coefficient of correlation between deposit and total investment.

b) Coefficient of correlation between deposit and loan & advances.

c) Coefficient of correlation between total investment and net profit.

a) Coefficient of Correlation between Deposit and Total Investment

The coefficient of correlation between deposit and total investment measures the degree of relationship between two variables; deposit and total investment. In this study, deposit is taken as independent variable (X) and total investment is taken as dependent variable (Y). The main purpose calculating coefficient correlation (r) between them is to justify whether the deposits are significantly used as investment or not.

Table 27 shows the value of the coefficient of correlation (r), coefficient of determination (r^2), probable error (P. Er.) and six times probable error (6P.Er.) of NBL, RBB, NIBL and SCB during the study period.

Table 27

Coefficient of Correlation between Deposit and Total Investment

Banks	Evaluation Criterions				
	r	r^2	P. Er	6P. Er	Remarks
NBL	0.7685	0.5905	0.1043	0.6262	r>6 P.Er
RBB	0.9200	0.8464	0.0391	0.2349	r>6 P.Er
NIBL	0.9396	0.8828	0.0298	0.1791	r>6 P.Er
SCB	0.9322	0.8690	0.0333	0.2002	r>6 P.Er

Source: Annex -20-A

The Table 27 shows the correlation between deposits and total investment of selected commercial banks. It describes the relationship between total deposits and investment.

From the table 29, it has been found that the coefficient of correlation between total deposits and investment of NBL, RBB, NIBL and SCB are 0.7685, 0.9200, 0.9396 and 0.9322 respectively. Similarly, coefficient of determination (r^2) of NBL, RBB, NIBL and SCB are 0.5905, 0.8464, 0.8828 and 0.8690

respectively, which indicate that 59.05%, 84.64%, 88.28% and 86.90% of the variation in the dependent variable (total investment) has been explained by the independent variable (deposits). Moreover, by considering the probable error (P.Er), since the value of (r) in all the banks are higher than 6 times the P.Er, the correlation between these two variables are certain and significant in all the banks.

From this analysis, it can be concluded that there is positive relationship between deposits and investment in all the banks. The value of (r) in NIBL is the highest i.e. 0.9396 among four commercial banks so there is high degree of positive relationship between deposit and investment in NIBL. The deposit and investment in SCB and RBB have moderate relationship i.e. 0.9322 and 0.9200 respectively and investment in NBL have lesser degree of relationship.

b) Coefficient of Correlation between Deposit and Loans & Advances

The correlation between total deposits and loans & advances describes the degree of relationship between these two variables. One unit increase or decrease in deposit impact the volume of loans & advances is measured by this correlation. Every commercial bank gives priority to loans & advances. Here, deposits are the independent variable (X) and the loans & advances is the dependent variable (Y). The main objective of this computation is to justify whether deposits are significantly used as loan and advances in proper way or not.

The Table 28 shows the value of the coefficient of correlation (r), coefficient of determination (r^2), probable error (P. Er.) and six times probable error (6P.Er.) of deposits and loan & advances of selected commercial banks i.e. NBL, RBB, NIBL and SCB during the study period.

Table 28

Coefficient of Correlation between Deposit and Loan & Advances

Banks	Evaluation Criterions				
	r	r^2	P. Er	6P. Er	Remarks
NBL	0.9508	0.9041	0.0244	0.1465	r> 6 P.Er
RBB	0.9380	0.8799	0.0306	0.1836	r> 6 P.Er
NIBL	0.9951	0.9902	0.0024	0.0148	r> 6 P.Er
SCB	0.9371	0.8783	0.0310	0.1861	r> 6 P.Er

Source: Annex -20-B

Table 28 shows that the coefficient of correlation between deposit and loans & advances of NBL is 0.9508. It shows the positive relationship between these two variables. However, the value of coefficient of determination (r^2) is 0.9041 which indicates that 90.41% variation in the dependent variable (loan & advances) has been explained by the independent variable (deposits). Further, it shows that the value of coefficient of correlation (r) is more than 6r.Er. It reveals that there is a positive relationship between deposits and loans & advances that means there is significant relationship between these two variables. Therefore the value of 'r' is significant.

Similarly the coefficient of correlation (r) of RBB is 0.9380 and coefficient of determination (r^2) is 0.8799. It shows that there is positive correlation between deposits and loans & advances. RBB has the P.Er of 0.0306 and 6P.Er is 0.1836. There will be the variation of 87.99% in loans & advances due to the variation in deposits and loans & advances. It shows that the value of 'r' is greater than 6P.Er. So, the relationship between deposits and loans & advances of RBB is highly significant.

The correlation (r) of NIBL is 0.9026 and r^2 is 0.847. It indicates that there is positive relationship between investment and loans & advances. There will be the variation of 84.70% in loans & advances are due to deposit. Moreover the

value of P.Er is 0.0477 and 6P.Er is 0.2832. It shows the value of 'r' is greater than 6P.Er. The relationship between deposits and loans & advances of NIBL is significant.

Likewise the correlation coefficient between deposits and loans & advances of SCB is 0.9371 with that there will be the variation of 0.8783. It indicates that there will be the variation of 87.83% in loans & advances has been explained by the deposit. The remaining is variation is due to other factors. Moreover the value of P.Er is 0.0310 and 6P.Er is 0.1861. Coefficient of correlation (r) is greater than 6P.Er. It indicates that there is significant relationship between deposit and loans & advances of SCB.

c) Coefficient of Correlation between Total Investment and Net Profit

The degree of relationship between total investment and net profit is measured by coefficient of correlation between these two variables. In this analysis, the total investment is independent variable (X) and net profit is dependent variable (Y). The purpose of this computation is to justify whether the net profit is significantly correlated with the total investment or not.

The Table 29 shows the value of the coefficient of correlation (r), coefficient of determination (r^2), probable error (P. Er.) and six times probable error (6P.Er.) of total investment and net profit of selected commercial banks i.e. NBL, RBB, NIBL and SCB during the study period.

Table 29

Coefficient of Correlation between Total Investment and Net Profit

Banks	Evaluation Criterions				
	r	r^2	P. Er	6P. Er	Remarks
NBL	0.7218	0.5211	0.1221	0.7326	r< 6 P.Er
RBB	0.6506	0.4232	0.1470	0.8822	r< 6 P.Er
NIBL	0.9298	0.8646	0.0345	0.2071	r> 6 P.Er
SCB	0.9175	0.8417	0.0403	0.2421	r> 6 P.Er

Source: Annex -20-C

From the table 29, it has been found that the coefficient of correlation between total investment and net profit of NBL, RBB, NIBL and SCB are 0.7218, 0.6508, 0.9298 and 0.9175 respectively. It shows the positive relationship between these two variables. However, the value of coefficient of determination (r^2) of NBL, RBB, NIBL and SCB are 0.5211, 0.4232, 0.8646, 0.8417 respectively which indicate that 52.11%, 42.32%, 86.46% and 84.17% variation in the dependent variable (net profit) have been explained by the independent variable (investment).

In case of NBL and RBB, the value of r is less than 6P.Er i.e. 0.7218<0.7326 and 0.6506<0.8822 respectively. It means there is no significant relationship between total investment and net profit. In other words, NBL and RBB both have not been successful in earning profit by investment and don't seem to have good investment policy.

In case of NIBL and SCB, the value of r is greater than 6P.Er i.e. 0.9298>0.2071 and 0.9175>0.2421 respectively. This means the value of r is significant i.e. there is a significant relationship between total investment and net profit. In other words, both the NIBL and SCB are capable to earn net profit by investment and seem to have good investment policy.

From this analysis, it is found that NBL and RBB have no significant relationship between total investment and net profit whereas NIBL and SCB have significant relationship between total investment and net profit. In conclusion, it can be said that NBL and RBB are weak to earn profit through investment and seem having unsound investment policies in comparison to NIBL and SCB.

4.3 Major Findings

The prior chapters have discussed and discovered the facts for the various parts of the study. Analytical part, which is the heart of the study, makes an analysis of various aspects of the investment policy of NBL, RBB, NIBL and SCB by using some of financial and statistical tools.

The most vital task is to enlist finding issues and give suggestions for further improvement. This would be meaningful to the top management of the bank to initiate action and achieve the desire result. The main objectives of the study are to point errors and mistakes, to correct them and to give directions for further growth and improvement.

The main findings of the study that are derived on the financial data analysis of NBL, RBB, NIBL and SCB are presented below:

1.1 Liquidity Ratio Analysis:

1. The selected four commercial banks NBL, RBB, NIBL and SCB have higher current liabilities than its current assets. The average ratio of NBL, RBB, NIBL and SCB are 0.576, 0.591, 0.804 and 0.571 respectively. During the study period. The C.V of SCB i.e. 0.057 has lowest among them. It means SCB is more consistent to meet their short-term obligation over the review period. However, on the basis of standard current ratio, all four commercial banks have not sound liquidity position with respect to current ratio.

2. Cash & Bank to total deposit ratio of NBL, RBB, NIBL and SCB are fluctuating trend over its review period. The mean ratio of NBL, RBB, NIBL and SCB are 18.6%, 13.3%, 11.1% and 16.4% respectively. Considering the inflationary pressure in the economy. NRB has prescribed CRR of 5%. All the selected commercial banks have higher CRR than 5%. This indicates that all four banks have positive impact on their solvency position. The C.V of NBL, RBB, NIBL and SCB are 17%, 18.3%, 14.7% and 12.5% respectively. On the basis of C.V, SCB and NIBL more stability than NBL and RBB. So all four banks has maintain sound liquidity position to meet any unexpected demand of the depositors.

3. The cash & bank balance to current assets ratio shows the bank ability to meet the demand for cash. The average ratio of SCB i.e. 27.6% is highest among four banks. Similarly, standard deviation of NIBL i.e. 2.1% and C.V of SCB i.e. 14.1% is lowest among the selected banks. So in conclusion, SCB is the most consistent and is in better position in maintaining its cash and bank balance to meet its daily requirements than NIBL, RBB and NBL to make the payments on customers' deposits withdrawal.

4. Investment in government securities to total deposit shows the portion of commercial bank's total deposits which is invested on low risk government securities. The average ratio of investment in government securities to total deposit ratio of NBL, RBB, NIBL and SCB are 30.4%, 14.3%, 10.9% and 34.4% respectively and the C.V of NBL, RBB, NIBL and SCB are 13.4%, 34.4%, 39.5% and 12% respectively. Since, the average ratio of SCB is highest among other banks, it has the high investment part in government securities, and it seems more consistent and stable over the study period.

5. Total investment to total deposit ratio refers the optimal mobilizing the total deposits on investment in different sectors of high ratio indicates the

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success in mobilizing the deposit. The average ratio of NBL, RBB, NIBL and SCB are 35.6%, 18%, 29.3% and 53.6% respectively. SCB has the highest total investment to total deposit ratio and RBB has the lowest ratio. So, SCB has highly utilized its deposit in investment activities. Similarly NBL is also good in mobilizing its deposit in investment activities. However, NIBL is moderate and RBB has the lowest total investment to total deposit ratio. According to the NRB directives, there is no restriction for the commercial banks to invest in the government securities. Hence, investment in government securities of SCB, NBL, NIBL and RBB can be regarded as healthy.

1.2 <u>Assets Management Ratio Analysis</u>:

The average loan and advances to total deposit ratio of NBL, RBB, NIBL and SCB are 26.1%, 31.9%, 69.1% & 38.1% respectively. Higher the ratio implies the better utilization of total deposits. The C.V of RBB and NIBL is 8.1% and C.V of SCB i.e. 15.2% almost twice of RBB and NIBL. The C.V of NBL is 11.3%. Thus, the ratio of RBB and NIBL is more uniform & consistent loan and advances are the bank's most risky asset. Higher level of risk in not desirable for commercial banks as the default in loans can increase the loan loss provision and hence decrease the profit.

The mean ratio of loan and advances to total assets ratio of NBL, RBB, NIBL and SCB is 23.7%, 31%, 60.6% and 33.3% respectively and C.V of them are 21%, 18.7%, 9% and 15.5% respectively. This shows that NIBL has higher risks and eventually fields' higher return i.e. 60.6% than SCB, RBB and NBL as loan and advances is the most risky and most productive assets of the bank. NBL is in weak condition to mobilize its total assets as loan and advances and its C.V is also highest i.e. 21% among four banks which means the ratios are less consistent and more variable. Similarly, SCB and RBB are moderate in mobilizing its assets to loan and advances.

Investment on government securities to total working fund ratio shows the proportion of risk free assets in the total assets of bank. Investment on government securities is the risk free investment for the commercial banks.

The mean ratio of NBL, RBB, NIBL and SCB are 27.6%, 14.4%, 9.7% and 30.1% respectively. SCB seems to be more flexible in investment on government securities and it shows that SCB has invested highest portion of its working fund into government securities and then after NBL, RBB and NIBL respectively. The C.V of NBL, RBB, NIBL and SCB are 19.5%, 13.9%, 39.2% and 12.9% respectively. SCB has lowest C.V and NBL and RBB have moderate C.V and NIBL has highest C.V. So, from the analysis, SCB is most consistent and stable in investing policy on government securities over the review period and NIBL is more variable and fluctuating investment policy on government securities.

Investment in shares and debentures are more risky than investment in government securities. The mean ratio of NBL, RBB, NIBL and SCB are 3.2%, 3.7%, 11.7% and 16.6% respectively. From the analysis, it seems that investment in risky share and debentures are less than investment in risk-free government securities. The SCB has contributed 16.6% of its total working fund into investment on shares and debentures if other banks and financial institutions. In the initial period, NBL and RBB have absolutely ignored in investing share and debentures but from F.Y 2005/06, they slightly move towards the investing activities of share and debentures. SCB and NIBL also seem moderate in investment on shares and debenture. However, SCB is more consistent and stable in investment in risky share and debentures since its C.V i.e. 20.6% is lowest among the four commercial banks.

Performing loan loss provision indicates the success of banks in utilizing their assets for the generation of profit. The mean performing loan loss

provision ratio of NBL, RBB, NIBL and SCB are 60.9%, 52.1%, 98% and 97% respectively; higher the ratio, higher the quality of assets and their proper utilization. Hence, NIBL has higher ratio than SCB, NBL and RBB. It indicates that NIBL has proper utilization of assets on good loan. Similarly, SCB is also efficiently utilizing its assets on good loan. NBL and RBB are in moderate condition. However, they are also maintaining the ratio in the increasing trend. The C.V of NBL, RBB, NIBL and SCB are 38.1%, 35.6%, 0.5% and 1.1% respectively.

Higher non performing loan loss provision ratio indicates worse management of assets and signifies the relatively more risky assets in the volume of loan and advances. The mean ratio of NBL, RBB, NBL and SCB are 39.1%, 47.9%, 2% and 2.6% respectively and C.V are 59.2%, 38.8%, 26.7% and 40.8% respectively. The standard deviation of NBL, RBB, NIBL and SCB are 23.2%, 18.6%, 0.5% and 1% respectively. From this analysis, NIBL is in excellent in minimizing non-performing loss because it mean ratio, C.V and standard deviation of ratio seems to be lowest among four commercial banks. SCB is also in satisfactory condition. However the ratio of NBL and RBB are not in satisfactory condition in comparison to NIBL and SCB.

1.3 Profitability Ratios Analysis:

Return on loan and advance indicates the earning on mobilized fund based on loan and advances. Loan and advance is the highest yielding asset of the banks with highest risks. The average ratio of NBL, RBB, NIBL and SCB are 0.8%, -6.1%, 2.4% and 7.5% respectively. From the analysis, SCB has the highest mean ratio of 7.5%. So, SCB has been most effectively utilizing its assets as loan and advances in generating profit. NIBL has moderate mean ratio. So, RBB is not in good condition on the basis of return on loan and advances. On the basis of C.V NIBL, is more consistent and stable on return on loan & advances than SCB, NBL and RBB.

Return on total working fund or return on assets measures the overall profitability of all working fund. The mean ratio of NBL, RBB, NIBL and SCB are 0.1%, -1.6%, 1.5% and 2.5% respectively and C.V of them are 28.413, -4.744, 0.178 and 0.042 respectively and S.D of them are 0.037, 0.077, 0.003 and 0.001 respectively. On the basis of mean, S.D ( ) and C.V, SCB has secured highest return on total working fund and the ratio is more consistent and stable as its C.V is lowest among other commercial bank over its review period. RBB is not in good condition since it has negative return on total working fund i.e. -1.6%.

Return on equity ratio indicates the efficiency of utilization of owners' fund by banks. According to the analysis, the mean ratio of SCB (36.2%) is higher than that of NIBL (21.1%), RBB (3.1%) and NBL (-3.3%). It means SCB is more effective and efficient in shareholders' fund mobilization in generating income of the bank than other three banks over the 7 years of study period. C.V of SCB is also lowest among four commercial banks. So, SCB is more consistent and stable in utilizing its equity for maximizing profitability. On the basis of mean ratio, NBL should improve the ratio of return on equity.

Return on investment ratio indicates the capacity of the bank to generate profit from its investment activities. Return will be higher if the investment diversification and portfolio has been effectively managed. Due to the heavy loss in initial review period i.e. F.Y 2001/02 and 2002/03, NBL and RBB have negative mean return on investment i.e. -2.3% and -26.7% respectively and the mean ratio of NIBL and SCB are 6.3% and 5.3% respectively. On the basis of mean ratio, NIBL has highest return on investment i.e. 6.3% among four banks and SCB has moderate mean return on investment.

Total interest earned to total working fund ratio measures the percentage of interest earned over total working fund. Total working fund includes all assets of on balance sheet items. The mean ratio of NBL, RBB, NIBL and SCB are 4.9%, 4.9%, 5.7% and 4.9% respectively. So, NIBL has earned highest yield of interest on total working fund and SCB, NBL and RBB have yield same mean return The C.V of NBL, RBB, NIBL and SCB are 17.1%, 13.2%, 12.2% and 7.2% respectively. On the basis of C.V, SCB is more stable and consistent in earning in earning interest by utilizing total working fund rather than NIBL, RBB, and NBL, NBL has more variation in interest earned since it has highest standard deviation i.e. 8% and highest C.V i.e. 17.2%.

1.4 Risk Ratio Analysis:

The mean capital risk ratio of NBL, RBB, NIBL and SCB are 1.4%, 1.1%, 3.4% and 3.3% respectively. The capital risk ratio of NIBL is highest among SCB, NBL and RBB. The capital risk ratio of RBB and NIBL is fluctuating trend while that of NBL is constant at 1% from 2001/02 to 2004/05 and increased by further 1% and remains constant at 2% from 2005/06 to 2007/08. Similarly, the capital risk ratio of SCB is slightly in fluctuating between 3% to 4% over the study period. However, the CV of SCB is lowest among other three banks. So, SCB is most consistent and stable in capital risk ratio.

1.5 Growth Ratio:

The growth rate of total deposits of all four commercial banks; NBL, RBB, NIBL and SCB are in increasing trend except the year 2004/05 in which the deposit of SCB has been decreased by 8.5%. The average growth rate of NBL, RBB, NIBL and SCB are 2.99%, 6.92%, 43.63% and 11.57% respectively. The growth rate of deposits of NIBL is extremely good compared to other three banks. SCB is in moderate condition and RBB and NBL are also gradually increasing their deposit rate.

The average growth rate of investment of NBL, RBB, NIBL and SCB are 6.82%, 35.05%, 31.02% and 7.87% respectively. The RBB has the highest growth rate i.e. 35.05%. NIBL has also high growth i.e. 31.02%. SCB has the moderate average investment growth rate. NBL has the lowest growth rate of investment i.e. 6.82%.

The average growth rate of loan & advances of NBL, RBB, NIBL and SCB are 7.87%, 9.71%, 51.37% and 15.98% respectively. The growth rate of NIBL is continuously in increasing trend and it has the highest growth rate among the other three commercial banks.

It is found that the net profit of NBL has been drastically changed over review period. Both the state owned banks NBL and RBB have been suffering from heavy losses in initial period of the study i.e. from 2001/02 to 2002/03. NIBL has earned substantial net profit over its review period. The growth rate of earning of SCB is also positive but in fluctuating trend over its review period.

1.6 Trend analysis:

From the trend analysis of total deposit, investment, loan & advances and net profit of NBL, RBB, NIBL and SCB, it is cleared that they are in increasing trend. The trend of deposit and net profit of RBB is the higher than that of NIBL, SCB and NBL. They are rising rapidly with higher slope where as the trend of investment of NBL is higher than other three banks. Further, the trend of loan & advances of NIBL is higher than RBB, SCB and NBL. Thus NBL, RBB, NIBL and SCB all four banks are able to increase the profitability of the banks as their fund collection and utilization are increasing. It seems that banks are adopting the proper policy to increase the profit of the organization. So, the investment policy of the banks in terms of optimum utilization of their resources to generate optimum return is satisfactory an in good trend.

1.7 <u>Correlation coefficient analysis:</u>

The correlation coefficient between total deposits and total investments show that the correlation coefficient (r) between total deposits and total investments of NBL, RBB, NIBL and SCB are 0.7685, 0.92, 0.9396 and 0.9322 respectively and probable error multiplied by six are found to be 0.6262, 0.2349, 0.1791 and 0.2002 respectively. Since r > 6P.Er of all the four banks, there is a significant and positive relationship between total deposit and total investment in all the selected banks.

The correlation coefficient between deposit and loan & advance shows that the correlation (r) between deposits and loan & advances of NBL, RBB, NIBL and SCB are 0.9508, 0.9380, 0.9951 and 0.9371 respectively and probable error which is multiplied by six is 0.1465, 0.1836, 0.0148 and 0.1861 respectively. Further, it shows that the value of coefficient of correlation (r) is more than 6P.Er. in all four banks. It reveals that there is a positive and significant relationship between deposits and loan & advances. Therefore the value of 'r' is significant.

The coefficient of correlation between total investment and net profit of NBL, RBB, NIBL and SCB are 0.7218, 0.6506, 0.9298 and 0.9175 respectively and probable error multiplied by six are 0.7326, 0.8822, 0.2071 and 0.2421 respectively. In case of NBL and RBB, the value of r is less than 6P.Er i.e. 0.7218<0.7326 and 0.6506<0.8822 respectively. It means there is no significant relationship between total investment and net profit. In other words, NBL and RBB both have not been successful in earning profit by investment and have no good investment policy.

In case of NIBL and SCB, the value of r is greater than 6P.Er i.e. 0.9298>0.2071 and 0.9175>0.2421 respectively. It means the value of 'r' is significant and there is a positive relationship between total investment and

net profit. So, it can be said that NIBL and SCB are capable to earn net profit by investment and they have implemented a good investment policy.

CHAPTER-V

SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Summary

Commercial banks are the major component in the financial system. They work as the intermediary between depositors and lenders and facilitate in the overall development of the economy, with major thrust in industrial development. Moreover, economic development depends upon capital formation and its proper utilization. Financial institutions collect scattered savings of the country and invest them into the most profitable and high yielding sectors of the economy to enhance the process of economic development. Commercial banks are major financial institutions which occupy an vital place in the framework of every economy because they provide capital for the development of the industry, trade and business and other resource deficit sectors by investing the savings collected as deposits. Every commercial bank formulates an investment policy in order to define the objective of bank's liquidity management and investment portfolio. In addition, they render various services to their customers which ultimately facilitate their economic and social life.

Investment refers to the conversion of money into claims on money and use of fund for productive assets. It includes the saving of resources for future benefits. In terms of banking investment, it means purchasing stock, bonds, shares, treasury bills etc. The features of investment decisions are profit, risk, speculation and wealth. Good investment policy ensures maximum amount of investment by adopting optimum portfolio.

Investment management of a bank is guided by the investment policy adopted by the bank. The investment policy of bank helps the investment

operation of the bank to be efficient and profitable by minimizing the risk. A healthy development of any bank depends upon its investment policy. A sound investment policy of a bank is such that its fund is distributed on different types of assets with good profitability and provides maximum safety and security to the depositors and banks. There are six principles of good investment policy i.e. profitability. Liquidity, safety and security, stability & diversification, purpose of loan and legality.

Investment policy provides guidelines to handle their investment operation smoothly ensuring maximum return with minimum exposure toward risk. Main investment of bank is lending its collected fund in different sector of economy. Lending affects the bank's profitability and liquidity. So, it is one of the crucial decisions for the commercial banks. The major source of income of a bank is interest income from loans and investments. Loans and advances provided by commercial banks are risky. The directions and guidance provided by Nepal Rastra Bank are the major statements for Nepalese commercial banks. Thus, commercial banks have to follow these policies to utilize their funds.

In the current scenario there is a high competition in banking sector in Nepal but investment alternatives are decreasing due to political instability, insurgency etc. So, banks have to face many problems to survive in this type of environment. Every bank is following sound investment policy for a purposeful, safe and profitable investment. Development of trade, industry and business is the main platform of banks to conduct its activities and fulfill its profit making objectives. The sound investment policy helps all the banks to make profitable investment which in turn also helps to develop the economic condition of the country.

The basic objective of this study is to evaluate the investment policy adopted by NBL, RBB, NIBL and SCB and to suggest measures to improve the investment policy of the banks. The study mainly based on the secondary data

from F.Y 2001/02 to 2007/08. The data had been obtained from the annual reports and its financial statements, past period master's degree thesis related to this topic and various published reports. Various financial and statistical tools are applied in this study to analyze and interpret the data and information. Under the financial analysis, liquidity ratio, assets management ratio, profitability ratio, risk ratio, growth ratios have been used. Under the statistical analysis, trend analysis and coefficient of correlation analysis have been used.

5.2 Conclusions

The liquidity ratio of the four selected commercial banks in the terms of current ratio, cash and bank balance to total deposit ratio, cash and cash balance to current assets ratio, investment in government securities to total deposit ratio and total investment to total deposit ratio have been analyzed. The liquidity ratio analyzed here shows fluctuating trend over the seven years period. In the term of current ratio two private banks are found better than two state owned banks. It means two private banks have ability to pay short term obligation through their current assets. In case of cash and bank balance to total deposit ratio, all four selected commercial banks have higher CRR above 5%. However, on the basis of C.V, SCB and NIBL are more consistent and stable than NBL and RBB. Similarly, SCB is the most consistent and is in better condition. Similarly, SCB has been successful to maintain consistent ratio of cash and cash balance to current assets ratio, investment in government securities to total deposit ratio and total investment to total deposit ratio.

The assets management ratio of two private commercial banks; NIBL and SCB are better than two state owned banks; NBL and RBB on their assets utilization over the study of seven years period. The loan and advances to total deposit ratio, loan & advances to total assets ratio, investment in government securities to total working fund ratio, investment in shares and debentures to total working fund ratio of NIBL and SCB are more consistent and stable than that of NBL and RBB. Further loan loss provision of NIBL and SCB are good

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enough as compared to that of NBL and RBB. It indicates that NIBL and SCB are more efficient and effective on utilization of their banks' assets.

Every company or bank has the motive of earning profit to survive and grow over the long period of time. Profit is the engine that drives the business enterprises and it is an indicator of overall performance of the company. The profitability ratios have been calculated basically to measure the operating efficiency of the banks. In this study, this ratio have analyzed in terms of return on loan and advances, return on total working fund, return on equity, return on investment ratio and interest earned to total assets ratio. On the basis of analysis of the profitability ratio, SCB has been able to earn most stable and consistent profit over the review period. NIBL has also earning higher profit than RBB and NBL. Initial period of study, NBL and RBB have been suffering from huge losses.

The average growth rate of total deposit and loan & advances of NIBL is the highest among SCB, RBB and NBL over its review period. The growth rate of profit of NBL and RBB has been suffering from losses in its initial period of the study. RBB has highest average growth rate of investment. Over the observation of the study period, NIBL has higher growth and SCB has maintained substantial growth from the beginning of the study period. RBB has earned highest profit in F.Y 2007/08 among SCB, NIBL and NBL. Then SCB has been in second position and NIBL has been in third position on the basis of earnings of the F.Y 2007/08.

All the four selected commercial banks i.e. NBL, RBB, NIBL and SCB have positive trend in total deposit, investment, loan & advances and net profit. However, the slope of trend lines of RBB is higher than that of NIBL, SCB and NBL with respect to total deposit and net profit where as the trend of investment of NBL is higher than other three banks. The slope of trend of NIBL is higher than other three banks with respect to loan & advances.

Therefore, it can be concluded that all banks have been adopting a good investment policy.

Since the correlation coefficient between total deposits & total investment and correlation coefficient between deposit and loan & advances are positive and r> 6 P.Er. of all four banks. It is significant and positive correlation between them. It means the increase or decrease of total deposits highly affect the total investment and loan & advances.

The coefficient of correlation between total investment and net profit of NBL, RBB, NIBL and SCB are 0.7218, 0.6506, 0.9298 and 0.9175 respectively. Hence, total investment and net profit of four banks are positively correlated. However, in case of NBL and RBB, $r < 6P.Er$, there is no significant relationship between total investment and net profit. But in case of NIBL and SCB, the value of $r > 6P.Er$, so there is a positive relationship between total investment and net profit. In conclusion, it can be said that NIBL and SCB both private banks have good investment policy which contributes to earn profit and NBL and RBB have not been able to earn profit by investment policy.

5.3 Recommendations

On the basis of analysis, findings and gap of the study, following recommendations can be advised to overcome weakness, gaps, inefficiency to revitalize and improve present fund mobilization and investment policy of NBL, RBB, NIBL and SCB.

1. According to the study, the current ratio of NBL, RBB, NIBL and SCB are below the standard i.e 2:1. The liquidity position of a bank may be affected by internal as well as external factors such as capability of management, strategic planning, fund flow situations, investment situation, lending policies, central bank's directives, interest rate, supply and demand position of loan and advances, saving and the growth position of the financial market. The bank should maintain enough liquidity assets to pay short-term obligations. As the liquidity position of all these four banks is found to be low, they are recommended to increase the current assets or try to lower the current liabilities to improve the liquidity position.

2. The investment in government securities of NIBL and RBB are decreasing. The government securities are considered to be free of risk of default. Such securities yield the lowest interest rate of a fixed maturity. NIBL and RBB have maintained lower position in this regard than SCB and NBL. So, it is recommended to NIBL and RBB that "something is better than nothing". So if they have idle fund, they should increase investment in government securities, which helps to utilize funds into income generating assets as well as minimizes risk and help to reduce total risk weighted assets.

3. The position of asset management ratio of two private banks NIBL and SCB are better than two stated owned banks NBL and RBB
The most significant productive assets and largest assets of the bank is loan & advances. So, most of banks utilized their deposit money as loan & advances to get success in competitive banking environment. It has been found that the average loan & advances to total deposit ratio and loan &

advances to total assets ratio of two private banks NIBL and SCB are higher than two stated owned banks RBB and NBL. It means state owned bank NBL and RBB have not properly used their existing deposit as loan & advances. So, NBL and RBB are recommended to follow liberal lending policy and invest more percent amount of total deposit in loan & advances. Liberal lending policy helps a bank to make the efficient utilization of its deposits.

4. It has been found that the mean performing loan loss provision ratio of two private banks NIBL and SCB is far higher than two state owned banks NBL and RBB respectively. Higher the ratio indicates higher the quality of assets and their proper and efficient utilization. So, it is recommended to NBL and RBB to enhance their quality of assets and close supervision and deep study of the borrower is required while

5. The non performing loan loss provision ratio of NBL and RBB are higher than the standard level. It should be less than 5% to be graded as internationally 'A' grade commercial banks. Therefore, the management of these banks should give attention to manage the NPA. Regarding the NPA, NBL and RBB should focus on the collection of expired loans and advances to reduce the loan loss ratio. The policy of them should ensure rapid identification of delinquent loans, immediate contact with borrowers and continual follow up until a loan is recovered. The recovery of loan is the most challenging job to a bank. Therefore, the bank must be very careful in formulating a sound credit collection policy.

6. Profit is a must for the existence and stability of any business or bank. The average ratio of return on loan & advances, return on total working fund, return on investment of RBB is negative and average return on equity ratio of NBL is negative due to the heavy losses in some of the initial periods and

this may be due to the focus of state owned banks on low return areas. So, they should look for other areas of investment with higher return so that it can earn return sufficient enough for its survival, stability and long-term sustainability. Further, they should be careful in increasing profit in real sense to maintain the confidence of shareholders, depositors and their all customers. Two private banks SCB and NIBL's profitability position is better than that of state owned bank RBB and NBL. So, it is recommended to RBB and NBL to utilize risky assets and shareholders' fund to gain highest profit margin. Similarly, it should reduce its expenses and should try to collect cheap fund being more profitable.

7. The main source of profit is investment. Higher the productive investment, higher will be the profit and it leads to reduce bad loans gradually. Therefore, the portfolio condition of the banks should be examined carefully from time to time and attention should be made to maintain equilibrium in the portfolio condition as far possible. So, it can be said " all eggs should not be kept in the same basket." The bank should make continuous efforts to explore new, competitive and high yielding investment opportunities to optimize their investment portfolio and make efficient investment in the various sectors. So the existing return to shareholders will increase.

8. In the light of growing competition in the banking sector, the business of the bank should be customer oriented. It should strengthen and activate its marketing activities, as it is an effective tool of attracting and retaining customers. For this purpose they have to choose various marketing methods like advertisements, audio-visual; web sites and bank should develop an "Innovative Approach to Bank Marketing" and formulates new strategies of serving customers in a more convenient and satisfactory way.

9. The private banks are not interested in granting loan to the primary and deprived sector of the economy. Banking is not being the easy accessibility of public in remote and rural areas. Private Banks have concentrated their operation mainly in urban and capital of the country. So, private commercial banks are recommended to widen their activities in primary and deprived areas of our country Nepal.

10. Most of the commercial banks have focused their banking services especially on urban areas and big clients such as multinational companies, large scale industries housing companies, manufactures and exporter companies. Due to the higher minimum level bank balance to open an account in these banks, small depositors are very far from enjoying the banking facilities provided by such commercial banks. On the same way commercial banks do not provide small amount of loan (less than Rs 200,000) so small borrower are very far from commercial bank's loan facility, they are to borrow money from non-organized lender at high interest rate as well as most of the private banks are focused their activities on urban areas only So it is recommended specifically to private banks that they should operate their activities on rural areas and should provide loan small amount of loan to small borrower and small depositors as well. So all these banks should be open their doors to the small depositors and entrepreneurs for promoting and mobilizing small investor's fund.

11. On the basis of findings and conclusions, there is highly difference in profitability of state owned banks and private commercial banks due to the huge non-performing loan (NPL), huge operational expenses, political and trade union interference, lack of effective management and burden of large number of employees without placing right person on right job and inefficient and non-motivated employees in state owned banks compared to private banks. So, it is recommended that two state owned banks should cut-off large no. of employees to reduce operational expenses as well as

trade union should emphasis their activities on the overall development and benefit of the employees and the bank as a whole rather than individual and political interest. So, they should initiate reform programs for stable and sound financial system in the country.

12. It is very difficult to immediate increase of the capital in very short term for any commercial banks. Issuing bonus share or right shares, fresh shares and issuing debentures takes a long time, as prior approval of NRB has to be obtained. Therefore, to maintain the adequate, the only option remain with the bank is to manage the assets to reduce the total risk weighted assets. Reducing loan & advances and increasing the investment on government securities can help to maintain the adequate capital.

Balance Sheet of	2001/02
	380
	-9934
	0
	213
	34265
	120
	0
	0
	14349
	39393
	1665
	4962
	1544
	7151
	8638
	140
	15293
	39393

Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03
Capital & Liabilities:						
Share Capital	380	380	380	380	380	380
Reserve & Funds	-6388	-6628	-6681	-7805	-9394	-10211
Debentures and Bonds	0	0	0	0	0	0
Borrowings	1820	1605	1717	1247	0	52
Deposits	41829	39014	35830	35934	35735	35014
Bills Payables	52	61	101	418	31	141
Proposed and Dividend Payable	2	2	0	0	0	0
Income Tax Liabilities	0	0	1	0	0	0
Other liabilities	4358	4824	4571	16872	17410	14440
Total Liabilities	**42053**	**39258**	**35919**	**47046**	**44162**	**39816**
Assets:						
Cash in hand	1182	1086	1111	1070	1010	1416
Balance with NRB	4431	5225	5354	5090	4851	3179
Balance with Banks/Financial Institution	1004	806	709	550	752	81
Money at Call and Short Notice	0	200				
Investments	16571	16072	14490	14199	11005	12448
Loan, Advance & Bills Purchased	13251	11058	9756	8219	8882	7971
Fixed Assets	208	206	192	187	195	138
Other Assets	5406	4605	4307	17731	17467	14583
Total Assets	**42053**	**39258**	**35919**	**47046**	**44162**	**39816**

Balance Sheet of RBB

(Rs. in million)

Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
Capital & Liabilities:							
Share Capital	1172	1172	1172	1172	1172	1172	1172
Reserve & Funds	-16678	-18370	-19890	-21372	-22610	-23568	-18623
Borrowings	2517	2220	4358	4218	80	162	156
Deposit Accounts	57971	50464	46195	43016	40867	39402	38993
Bills Payables		64	41	40	24	16	20
Other liabilities	7473	10818	8004	29748	25523	25988	23251
Total Liabilities	**52455**	**46368**	**39880**	**56822**	**45056**	**43172**	**44969**
Assets:							
Cash Balance	2308	1898	1202	1622	1007	1019	850
Balance with Banks	6962	4137	4027	3931	6012	2717	3676
Money at Call and Short Notice	550	20	0	0	100	740	0
Investments	14543	12650	11555	8416	3117	4623	4159
Loan, Advance & Bills Purchased	19816	17006	14634	13431	10831	11679	13690
Fixed Assets	757	440	421	393	392	479	403
Non-Banking Assets	-	-		0	0	0	0
Other Assets	7519	10217	8041	29029	23597	21915	22191
Total Assets	**52455**	**46368**	**39880**	**56822**	**45056**	**43172**	**44969**

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Balance Sheet of NIBL

(Rs. in million)

Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
Capital & Liabilities:							
Share Capital	1204	801	590	588	295	295	170
Reserve & Funds	1483	1077	825	592	434	343	353
Debentures and Bonds	1050	800	550	-	-	-	-
Borrowings	0	0	0	350	361	7	98
Deposit Liabilities	34452	24489	18927	14255	11525	7923	4175
Bills Payables	79	32	19	15	58	32	7
Proposed and Dividend Payable	93	44	122	-	-	-	-
Income Tax Liabilities	24	0	9	-	-	-	-
Other liabilities	488	347	288	474	582	414	170
Total Liabilities	**38873**	**27590**	**21330**	**16274**	**13255**	**9014**	**4973**
Assets:							
Cash Balance	1464	764	563	374	315	201	62
Balance with NRB	1820	1381	1526	966	912	-	-
Balance with Banks/Financial Institution	470	296	248	-	-	726	277
Money at Call and Short Notice	0	363	70	140	310	40	0
Investments	6874	6506	5603	3934	3862	1705	1822
Loan, Advance & Bills Purchased	26997	17286	12776	10126	7130	5772	2564
Fixed Assets	970	759	343	321	250	191	36
Non-Banking Assets	1	1	-	-	-	-	-
Other Assets	191	234	201	413	476	379	212
Total Assets	**38873**	**27590**	**21330**	**16274**	**13255**	**9014**	**4973**

Balance Sheet of SCB

(Rs. in million)

Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
Capital & Liabilities:							
Share Capital	621	413	375	375	375	339	339
Reserve & Funds	1872	1703	1379	1208	1121	1029	673
Debentures and Bonds	0	0	0	0	0	0	-
Loans and Borrowings	0	400	0	28	78	79	672
Deposit Accounts	29744	24647	23061	19363	21161	18756	15836
Bills Payables	87	36	56	56	59	55	0
Proposed and Unpaid Dividend	506	342	500	461	-	-	0
Income Tax Liabilities	2	5	0	0	-	-	0
Other liabilities	503	1050	405	290	848	652	2156
Total Liabilities	**33335**	**28596**	**25776**	**21781**	**23642**	**20910**	**19676**
Assets:							
Cash Balance	415	378	280	195	188	199	258
Balance with NRB	1266	1614	750	692	-	-	370
Balance with Banks	369	29	247	223	1836	1313	201
Money at Call and Short Notice	2198	1760	1977	2260	2219	1658	2062
Investments	13903	13553	12847	9703	11360	10216	9276
Loan, Advance & Bills Purchased	13719	10503	8935	8143	6410	5696	5788
Fixed Assets	117	126	101	71	136	192	-
Non-Banking Assets	0	0	0	0	-	-	-
Other Assets	1348	633	639	494	1493	1636	1721
Total Assets	**33335**	**28596**	**25776**	**21781**	**23642**	**20910**	**19676**

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Profit & Loss Account of NBL

(Rs. in million)

Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
Interest Income	2095	1849	2049	1987	1825	2200	1527
Interest Expenses	773	773	774	749	1025	1585	1713
Net Interest Income	**1322**	**1076**	**1275**	**1238**	**800**	**615**	**-186**
Commission and Discount	230	181	177	188	232	280	241
Other Operating Incomes	157	287	140	543	1207	463	66
Exchange Fluctuation Income	119	0	121	1	72	43	184
Total Operating Income	**1828**	**1544**	**1713**	**1970**	**2311**	**1401**	**305**
Staff Expenses	1347	1125	1068	1305	1849	1542	1228
Other Operating Expenses	260	258	429	383	318	226	159
Exchange Fluctuation Loss	0	46	0	0	0	0	0
Provision for Possible Losses	258	80	607	4	0.0005	16	2114
Operating Profit	**-37**	**35**	**-391**	**278**	**143.999**	**-383**	**-3196**
Non-Operating Income/(Loss)	68	50	23	1452	645	132	125
Provision for Possible Loss Written Back	134	0	1814	0	0	0	0
Profit from Ordinary Activities	**165**	**85**	**1446**	**1730**	**788.999**	**-251**	**-3071**
Income/(Expenses) from Extra-Ordinary Activ.	180	165	-119	0	0	0	0
Net Profit from all Activities	**345**	**250**	**1327**	**1730**	**788.999**	**-251**	**-3071**
Provision for Staff Bonus	31	23	120	0	79	0	0
Provision for Income Tax	75	0	-	0	-	0	0
Net Profit/Loss	**239**	**227**	**1207**	**1730**	**709.999**	**-251**	**-3071**

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Profit & Loss Account of RBB

(Rs. in million)

Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
Interest Income	2358	2358	2282	2328	2236	2051	1745
Interest Expenses	1019	943	850	1005	1495	2108	2347
Net Interest Income	**1685**	**1415**	**1432**	**1323**	**741**	**-57**	**-602**
Commission and Discount	393	343	289	288	310	211	214
Other Operating Incomes	155	285	110	835	1056	85	78
Exchange Fluctuation Income	18	15	74	14	16	3	78
Total Operating Income	**2251**	**2058**	**1905**	**2460**	**2123**	**242**	**-232**
Staff Expenses	872	804	745	810	906	3249	758
Other Operating Expenses	339	343	289	234	230	245	243
Exchange Fluctuation Loss	0	0	0	0	0	0	0
Provision for Possible Losses	428	314	663	137	11	1594	5842
Operating Profit	**612**	**597**	**208**	**1279**	**976**	**-4846**	**-7075**
Non-Operating Income/(Loss)	14	29	27	44	147	7	7
Provision for Possible Loss Written Back	1134	1210	1516	0	0	0	0
Profit from Ordinary Activities	**1760**	**1836**	**1751**	**1323**	**1123**	**-4839**	**-7068**
Income/(Expenses) from Extra-Ordinary Activ.	152	-3	-33	0	0	0	0
Net Profit from all Activities	**1912**	**1833**	**1718**	**1323**	**1123**	**-4839**	**-7068**
Provision for Staff Bonus	142	136	127	0	83	0	0
Provision for Income Tax	0	0	0	0	0	0	0
Net Profit/Loss	**1770**	**1697**	**1591**	**1323**	**1040**	**-4839**	**-7068**

Profit & Loss Account of NIBL

(Rs. in million)

Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
Interest Income	2194	1585	1172	887	731	459	326
Interest Expenses	992	685	491	354	326	189	130
Net Interest Income	**1202**	**900**	**681**	**533**	**405**	**270**	**196**
Commission and Discount	215	164	116	93	56	40	16
Other Operating Incomes	66	47	36	25	37	26	30
Exchange Fluctuation Income	166	135	126	102	88	51	43
Total Operating Income	**1649**	**1246**	**959**	**753**	**586**	**387**	**285**
Staff Expenses	187	145	111	97	90	61	42
Other Operating Expenses	313	243	200	183	149	108	84
Exchange Fluctuation Loss	0	0	0	0	0	0	0
Provision for Possible Losses	136	130	104	140	91	30	75
Operating Profit	**1013**	**728**	**544**	**333**	**256**	**188**	**84**
Non-Operating Income/(Loss)	7	1	0.39	6	2	0.488	3
Provision for Possible Loss Written Back	101	67	10	31	0	0	0
Profit from Ordinary Activities	**1121**	**796**	**554.39**	**370**	**258**	**188.488**	**87**
Income/(Expenses) from Extra-Ordinary Activ.	0	0	0	0	0	0	0
Net Profit from all Activities	**1121**	**796**	**554.39**	**370**	**258**	**188.488**	**87**
Provision for Staff Bonus	102	72	50	37	26	19	9
Provision for Income Tax	323	222	154	101	79	53	21
Net Profit/Loss	**696**	**502**	**350.39**	**232**	**153**	**116.488**	**57**

Profit & Loss Account of SCB

(Rs. in million)

Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
Interest Income	1591	1412	1190	1059	1042	1001	1025
Interest Expenses	471	413	303	254	276	255	300
Net Interest Income	**1120**	**999**	**887**	**805**	**766**	**746**	**725**
Commission and Discount	276	221	222	178	199	215	217
Other Operating Incomes	32	29	25	29	70	55	18
Exchange Fluctuation Income	345	309	283	273	273	232	228
Total Operating Income	**1773**	**1558**	**1417**	**1285**	**1308**	**1248**	**1188**
Staff Expenses	225	200	168	148	135	128	126
Other Operating Expenses	230	228	221	257	280	312	225
Exchange Fluctuation Loss	0	0	0	0	0	0	0
Provision for Possible Losses	70	37	47	28	23	2	21
Operating Profit	**1248**	**1093**	**981**	**852**	**870**	**806**	**816**
Non-Operating Income/(Loss)	1	9	1	3	-11	-15	-7
Provision for Possible Loss Written Back	91	20	53	33	-	-	-
Profit from Ordinary Activities	**1340**	**1122**	**1035**	**888**	**859**	**791**	**809**
Income/(Expenses from Extra-Ordinary Activ.	28	5	2	2	-	-	-
Net Profit from all Activities	**1312**	**1117**	**1033**	**886**	**859**	**791**	**809**
Provision for Staff Bonus	119	102	94	88	86	76	78
Provision for Income Tax	374	324	280	262	236	208	226
Net Profit/Loss	**819**	**691**	**659**	**536**	**537**	**507**	**505**

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Annex-1

Current ratio (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Current assets	25274	22980	21237	32660	32962	27230	32102
	Current liabilities	46241	43901	40503	53224	53176	49595	48734
	Current ratio	0.55	0.52	0.52	0.61	0.62	0.55	0.66
RBB	Current assets	37155	33278	27904	48013	41547	38070	40407
	Current liabilities	65444	61346	54240	72804	66414	65406	62264
	Current ratio	0.57	0.54	0.51	0.66	0.63	0.58	0.65
NBL	Current assets	31028	20324	15384	12019	9143	7118	3115
	Current liabilities	35136	24912	19365	14744	12165	8369	4352
	Current ratio	0.88	0.82	0.79	0.82	0.75	0.85	0.72
SCB	Current assets	19315	14917	12828	12007	12146	10502	10400
	Current liabilities	30842	26080	24022	20170	22068	19463	17992
	Current ratio	0.63	0.57	0.53	0.60	0.55	0.54	0.58

Annex-2

Cash & Bank Balance to Total Deposit Ratio (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Cash & Bank Balance	6617	7317	7174	6710	6613	4676	8171
	Total Deposit	41829	39014	35830	35934	35735	35014	34265
	Ratio	0.16	0.19	0.20	0.19	0.19	0.13	0.24
RBB	Cash & Bank Balance	9820	6055	5229	5553	7119	4476	4526
	Total Deposit	57971	50464	46195	43016	40867	39402	38993
	Ratio	0.17	0.12	0.11	0.13	0.17	0.11	0.12
NBL	Cash & Bank Balance	3754	2804	2407	1480	1537	967	339
	Total Deposit	34452	24489	18927	14255	11525	7923	4175
	Ratio	0.11	0.11	0.13	0.10	0.13	0.12	0.08
SCB	Cash & Bank Balance	4248	3781	3254	3370	4243	3170	2891
	Total Deposit	29744	24647	23061	19363	21161	18756	15836
	Ratio	0.14	0.15	0.14	0.17	0.20	0.17	0.18

Annex-3
Cash & Bank Balance to Current Assets Ratio (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Cash & Bank Balance	6617	7317	7174	6710	6613	4676	8171
	Current Assets	25274	22980	21237	32660	32962	27230	32102
	Ratio	026	0.32	0.34	0.21	0.20	0.17	0.25
RBB	Cash & Bank Balance	9820	6055	5229	5553	7119	4476	4526
	Current Assets	37155	33278	27904	48013	41547	38070	40407
	Ratio	0.26	0.18	0.19	0.12	0.17	0.12	0.11
NBL	Cash & Bank Balance	3754	2804	2407	1480	1537	967	339
	Current Assets	31028	20324	15384	12019	9143	7118	3115
	Ratio	0.12	0.14	0.16	0.12	0.17	0.14	0.11
SCB	Cash & Bank Balance	4248	3781	3254	3370	4243	3170	2891
	Current Assets	19315	14917	12828	12007	12146	10502	10400
	Ratio	0.22	0.25	0.25	0.28	0.35	0.30	0.28

Annex-4
Investment in Govt. Securities to Total Deposit Ratio (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Govt. Securities	12918	13226.3	11776.9	11278	10593.8	11722.8	7115
	Total Deposit	41829	39014	35830	35934	35735	35014	34265
	Ratio	0.31	0.34	0.33	0.31	0.30	0.33	0.21
RBB	Govt. Securities	10565	10129	9026	6495	2919	4137	4088
	Total Deposit	57971	50464	46195	43016	40867	39402	38993
	Ratio	0.18	0.20	0.20	0.15	0.07	0.10	0.10
NBL	Govt. Securities	3155	3256	2522	1948.5	2001	400	224
	Total Deposit	34452	24489	18927	14255	11525	7923	4175
	Ratio	0.09	0.13	0.13	0.14	0.17	0.05	0.05
SCB	Govt. Securities	8138	7116	8645	7205	7948	6723	5785
	Total Deposit	29744	24647	23061	19363	21161	18756	15836
	Ratio	0.27	0.29	0.37	0.37	0.38	0.36	0.37

Annex-5

Performing Loan Loss Provision (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Performing Loan	14360	11901	10180	8495	8298	7167	5149
	Total Gross Loan	15771	13757	12442	16867	17938	18132	16908
	Ratio	0.91	0.87	0.82	0.50	0.46	0.40	0.30
RBB	Performing Loan	21543	17994	14625	13312	10635	10604	5984
	Total Gross Loan	27495	24871	23247	27001	25106	26609	27881
	Ratio	0.78	0.72	0.63	0.49	0.42	0.40	0.21
NIBL	Performing Loan	27220	17347	12900	10172	7157	5805	2279
	Total Gross Loan	27529	17769	13172	10453	7339	5922	2319
	Ratio	0.99	0.98	0.98	0.97	0.98	0.98	0.98
SCB	Performing Loan	13835	10593	9010	8195	6442	5752	5561
	Total Gross Loan	13964	10790	9206	8421	6694	6000	5661
	Ratio	0.99	0.98	0.98	0.97	0.96	0.96	0.98

Annex-6

Non Performing Loan Loss Provision (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Non Performing Loan	1411	1856	2262	8372	9640	10965	11759
	Total Gross Loan	15771	13757	12441	16866	17938	18132	16908
	Ratio	0.09	0.13	0.18	0.50	0.54	0.60	0.70
RBB	Non Performing Loan	5952	6876	8622	13689	14470	16005	21897
	Total Gross Loan	27495	24871	23246	27000	25106	26608	27881
	Ratio	0.22	0.28	0.37	0.51	0.58	0.60	0.79
NIBL	Non Performing Loan	309	422	272	281	181	117	40
	Total Gross Loan	27529	17769	13171	10453	7338	5922	2319
	Ratio	0.01	0.02	0.02	0.03	0.02	0.02	0.02
SCB	Non Performing Loan	129	197	196	226	252	248	100
	Total Gross Loan	13964	10790	9206	8421	6694	6000	5661
	Ratio	0.01	0.02	0.02	0.03	0.04	0.04	0.02

Annex-7

Total Investment to Total Deposit Ratio   (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Total Investment	16571	16072	14490	14199	11005	12448	7151
	Total Deposit	41829	39014	35830	35934	35735	35014	34265
	Ratio	0.40	0.41	0.40	0.40	0.31	0.36	0.21
RBB	Total Investment	14543	12650	11555	8416	3117	4623	4159
	Total Deposit	57971	50464	46195	43016	40867	39402	38993
	Ratio	0.25	0.25	0.25	0.20	0.08	0.12	0.11
NBL	Total Investment	6874	6506	5603	3934	3862	1705	1822
	Total Deposit	34452	24489	18927	14255	11525	7923	4175
	Ratio	0.20	0.27	0.30	0.28	0.34	0.22	0.44
SCB	Total Investment	13903	13553	12847	9703	11360	10216	9276
	Total Deposit	29744	24647	23061	19363	21161	18756	15836
	Ratio	0.47	0.55	0.56	0.50	0.54	0.54	0.59

Annex-8

Loan & Advances to Total Deposit Ratio   (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Loan & Advances	13251	11058	9756	8219	8882	7971	8638
	Total Deposit	41829	39014	35830	35934	35735	35014	34265
	Ratio	0.32	0.28	0.27	0.23	0.25	0.23	0.25
RBB	Loan & Advances	19816	17006	14634	13431	10831	11679	13690
	Total Deposit	57971	50464	46195	43016	40867	39402	38993
	Ratio	0.34	0.34	0.32	0.31	0.27	0.30	0.35
NBL	Loan & Advances	26997	17286	12776	10126	7130	5772	2564
	Total Deposit	34452	24489	18927	14255	11525	7923	4175
	Ratio	0.78	0.71	0.68	0.71	0.62	0.73	0.61
SCB	Loan & Advances	13719	10503	8935	8143	6410	5696	5788
	Total Deposit	29744	24647	23061	19363	21161	18756	15836
	Ratio	0.46	0.43	0.39	0.42	0.30	0.30	0.37

Annex-9

Loan & Advances to Total Assets Ratio (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Loan & Advances	13251	11058	9756	8219	8882	7971	8638
	Total Assets	42053	39258	35919	47046	44162	39816	39393
	Ratio	0.32	0.28	0.27	0.17	0.20	0.20	0.22
RBB	Loan & Advances	19816	17006	14634	13431	10831	11679	13690
	Total Assets	52455	46368	39880	56822	45056	43172	44969
	Ratio	0.38	0.37	0.37	0.24	0.24	0.27	0.30
NIBL	Loan & Advances	26997	17286	12776	10126	7130	5772	2564
	Total Assets	38873	27590	21330	16274	13255	9014	4973
	Ratio	0.69	0.63	0.60	0.62	0.54	0.64	0.52
SCB	Loan & Advances	13719	10503	8935	8143	6410	5696	5788
	Total Assets	33335	28596	25776	21781	23642	20910	19676
	Ratio	0.41	0.37	0.35	0.37	0.27	0.27	0.29

Annex-10

Investment in Govt. Securities to Total Working Fund Ratio (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Investment in Govt. Securities	12918	13226.3	11776.9	11278	10593.8	11722.8	7115
	Total Working Fund	42053	39258	35919	47046	44162	39816	39393
	Ratio	0.31	0.34	0.33	0.24	0.24	0.29	0.18
RBB	Investment in Govt. Securities	10565	10129	9026	6495	2919	4137	4088
	Total Working Fund	52455	46368	39880	56822	45056	43172	44969
	Ratio	0.20	0.22	0.23	0.11	0.06	0.10	0.09
NIBL	Investment in Govt. Securities	3155	3256	2522	1948.5	2001	400	224
	Total Working Fund	38873	27590	21330	16274	13255	9014	4973
	Ratio	0.08	0.12	0.12	0.12	0.15	0.04	0.05
SCB	Investment in Govt. Securities	8138	7116	8645	7205	7948	6723	5785
	Total Working Fund	33335	28596	25776	21781	23642	20910	19676
	Ratio	0.24	0.25	0.34	0.33	0.34	0.32	0.29

Annex-11
Investment in Shares & Debentures to Total Working Fund Ratio

(Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Shares & Debenture	2693	3057	2644	51	430	60	38
	Total Working Fund	42053	39258	35919	47046	44162	39816	39393
	Ratio	0.06	0.08	0.07	0.00	0.01	0.002	0.001
RBB	Shares & Debenture	4165	2693	2753	2058	223	96	82
	Total Working Fund	52455	46368	39880	56822	45056	43172	44969
	Ratio	0.08	0.06	0.07	0.04	0.005	0.002	0.002
NIBL	Shares & Debenture	3724	3262	3151	2125	2171	1345	38
	Total Working Fund	38873	27590	21330	16274	13255	9014	4973
	Ratio	0.10	0.12	0.15	0.13	0.16	0.15	0.01
SCB	Shares & Debenture	5789	6448	4206	2499	3412	3635	3491
	Total Working Fund	33335	28596	25776	21781	23642	20910	19676
	Ratio	0.17	0.23	0.16	0.11	0.14	0.17	0.18

Annex-12
Return on Loan &Advances

(Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Net Profit after Tax	239	227	1207	1730	709.9995	-251	-3071
	Loan & Advances	13251	11058	9756	8219	8882	7971	8638
	Ratio	0.018	0.021	0.12	0.21	0.08	-0.03	-0.36
RBB	Net Profit after Tax	1770	1697	1591	1323	1040	-4839	-7068
	Loan & Advances	19816	17006	14634	13431	10831	11679	13690
	Ratio	0.09	0.10	0.109	0.099	0.96	-0.41	-0.52
NIBL	Net Profit after Tax	696	502	350.39	232	153	116.488	57
	Loan & Advances	26997	17286	12776	10126	7130	5772	2564
	Ratio	0.026	0.029	0.027	0.023	0.021	0.020	0.022
SCB	Net Profit after Tax	819	691	659	536	537	507	505
	Loan & Advances	13719	10503	8935	8143	6410	5696	5788
	Ratio	0.06	0.066	0.074	0.066	0.084	0.089	0.087

Annex-13

Return on Total Working Fund (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Net Profit after Tax	239	227	1207	1730	709.9995	-251	-3071
	Total Working Fund	42053	39258	35919	47046	44162	39816	39393
	Ratio	0.006	0.006	0.034	0.037	0.016	-0.01	-0.08
RBB	Net Profit after Tax	1770	1697	1591	1323	1040	-4839	-7068
	Total Working Fund	52455	46368	39880	56822	45056	43172	44969
	Ratio	0.034	0.037	0.04	0.023	0.023	-0.11	-0.16
NIBL	Net Profit after Tax	696	502	350.39	232	153	116.488	57
	Total Working Fund	38873	27590	21330	16274	13255	9014	4973
	Ratio	0.02	0.02	0.02	0.01	0.01	0.01	0.01
SCB	Net Profit after Tax	819	691	659	536	537	507	505
	Total Working Fund	33335	28596	25776	21781	23642	20910	19676
	Ratio	0.03	0.02	0.03	0.03	0.02	0.02	0.03

Annex-14

Return on Equity (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Net Profit after Tax	239	227	1207	1730	709.9995	-251	-3071
	Total Equity	-6008	-6248	-6301	-7425	-9014	-9831	-9554
	Ratio	-0.04	-0.04	-0.19	-0.23	-0.08	0.03	0.32
RBB	Net Profit after Tax	1770	1697	1591	1323	1040	-4839	-7068
	Total Equity	-15506	-17198	-18718	-20200	-21438	-22396	-17451
	Ratio	-0.11	-0.10	-0.08	-0.07	-0.05	0.22	0.41
NIBL	Net Profit after Tax	696	502	350.39	232	153	116.488	57
	Total Equity	2687	1878	1415	1180	729	638	523
	Ratio	0.26	0.27	0.25	0.20	0.21	0.18	0.11
SCB	Net Profit after Tax	819	691	659	536	537	507	505
	Total Equity	2493	2116	1754	1583	1496	1368	1012
	Ratio	0.33	0.33	0.38	0.34	0.36	0.37	0.50

Annex- 15

Return on investment ratio

(Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Net Profit after Tax	239	227	1207	1730	709.9995	-251	-3071
	Total Investment	16571	16072	14490	14199	11005	12448	7151
	Ratio	0.014	0.014	0.08	0.12	0.06	-0.02	-0.43
RBB	Net Profit after Tax	1770	1697	1591	1323	1040	-4839	-7068
	Total Investment	14543	12650	11555	8416	3117	4623	4159
	Ratio	0.12	0.13	0.14	0.16	0.33	-1.05	-1.70
NIBL	Net Profit after Tax	696	502	350.39	232	153	116.488	57
	Total Investment	6874	6506	5603	3934	3862	1705	1822
	Ratio	0.10	0.08	0.06	0.06	0.04	0.07	0.03
SCB	Net Profit after Tax	819	691	659	536	537	507	505
	Total Investment	13903	13553	12847	9703	11360	10216	9276
	Ratio	0.06	0.05	0.05	0.06	0.05	0.05	0.05

Annex-16

Total Interest Earned to Total Asset Ratio

(Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Total Interest Earned	2095	1849	2049	1987	1825	2200	1527
	Total Assets	42053	39258	35919	47046	44162	39816	39393
	Ratio	0.05	0.05	0.06	0.04	0.04	0.06	0.04
RBB	Total Interest Earned	2704	2358	2282	2328	2236	2051	1745
	Total Assets	52455	46368	39880	56822	45056	43172	44969
	Ratio	0.05	0.05	0.06	0.04	0.05	0.05	0.04
NIBL	Total Interest Earned	2194	1585	1172	887	731	459	326
	Total Assets	38873	27590	21330	16274	13255	9014	4973
	Ratio	0.06	0.06	0.05	0.05	0.06	0.05	0.07
SCB	Total Interest Earned	1591	1412	1190	1059	1042	1001	1025
	Total Assets	33335	28596	25776	21781	23642	20910	19676
	Ratio	0.05	0.05	0.05	0.05	0.04	0.05	0.05

Capital Risk Ratio (Rs. in million)

	Fiscal Year	2007/08	2006/07	2005/06	2004/05	2003/04	2002/03	2001/02
NBL	Share Capital	380	380	380	380	380	380	380
	Risk Weighted Assets	22957	19509.39	16880.35	38458.44	35269.00	33447.78	32454.72
	Ratio	0.02	0.02	0.02	0.01	0.01	0.01	0.01
RBB	Share Capital	1172	1172	1172	1172	1172	1172	1172
	Risk Weighted Assets	34002.4	35636.28	-35730.58	50722	50022.78	-49997.50	37319.98
	Ratio	0.03	0.03	-0.03	0.02	0.02	-0.02	0.03
NIBL	Share Capital	1204	801	590	588	295	295	170
	Risk Weighted Assets	34484	21788.92	18171.52	13635.57	9830.05	7889.71	5443.56
	Ratio	0.03	0.04	0.03	0.04	0.03	0.04	0.03
SCB	Share Capital	621	413	375	375	375	339	339
	Risk Weighted Assets	18970	13846.52	12256.14	10173.34	9757.09	10308.58	9908.32
	Ratio	0.03	0.03	0.03	0.04	0.04	0.03	0.03

Annex-18-A

Growth rate can be calculated as: $D_n = D_o(1+g)^n$

Here, D^n = Total amount in nth year

D^o = Total amount in initial year

g = Growth Rate

n = Period

❖ **Growth Rate of Total Deposit of NBL**

$D_1 = D_{2001/02} = 34265$ $D_4 = D_{2004/05} = 35934$ $D_7 = D_{2007/08} = 41829$

$D_2 = D_{2002/03} = 35014$ $D_5 = D_{2005/06} = 35830$

$D_3 = D_{2003/04} = 35735$ $D_6 = D_{2006/07} = 39014$

Now,

$D_2 = D_1(1+g)^1$ $D_4 = D_3(1+g)^1$ $D_6 = D_5(1+g)^1$

$35014 = 34265(1+g)^1$ $35934 = 35735(1+g)^1$ $39014 = 35830(1+g)^1$

..g = 2.18%   ..g = 0.56%   … g = 8.88%

$D_3 = D_2(1+g)^1$ $D_5 = D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$35735 = 35014(1+g)^1$ $35830 = 35934(1+g)^1$ $35735 = 35014(1+g)^1$

..g = 2.06%   … g = -2.9%   ..g = 7.21%

Average Growth Rate = (2.18 + 2.06 + 0.56 - 2.9 + 8.88 + 7.21) %
                                                6

= 2.99 %

❖ Growth Rate of Total Deposit of RBB

$D_1 = D_{2001/02} = 38993$ $D_4 = D_{2004/05} = 43016$ $D_7 = D_{2007/08} = 57971$

$D_2 = D_{2002/03} = 39402$ $D_5 = D_{2005/06} = 46195$

$D_3 = D_{2003/04} = 40867$ $D_6 = D_{2006/07} = 50464$

Now,

$D_2 = D_1(1+g)^1$ $D_4 = D_3(1+g)^1$ $D_6 = D_5(1+g)^1$

$39402 = 38993(1+g)^1$ $43016 = 40867(1+g)^1$ $50464 = 46195(1+g)^1$

$\ldots g = 1.05\%$ $\ldots g = 5.26\%$ $\ldots g = 9.24\%$

$D_3 = D_2(1+g)^1$ $D_5 = D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$40867 = 39402(1+g)^1$ $46195 = 43016(1+g)^1$ $57971 = 50464(1+g)^1$

$\ldots g = 3.72\%$ $\ldots g = 7.39\%$ $\ldots g = 14.88\%$

$$\text{Average Growth Rate} = \frac{(1.05 + 3.72 + 5.26 + 7.39 + 9.24 + 14.88)\ \%}{6}$$

$$= 6.92\%$$

❖ Growth Ratio of Total Deposit of NIBL

$D_1 = D_{2001/02} = 4175$ $D_4 = D_{2004/05} = 14255$ $D_7 = D_{2007/08} = 34452$

$D_2 = D_{2002/03} = 7923$ $D_5 = D_{2005/06} = 18297$

$D_3 = D_{2003/04} = 11525$ $D_6 = D_{2006/07} = 24489$

Now,

$D_2 = D_1(1+g)^1$	$D_4 = D_3(1+g)^1$	$D6 = D_5(1+g)^1$
$7923 = 4175(1+g)^1$	$14255 = 11525(1+g)^1$	$24489 = 18297(1+g)^1$
$\therefore g = 89.77\%$	$\therefore g = 23.69\%$	$\therefore g = 33.84\%$

$D_3 = D_2(1+g)^1$	$D_5 = D_4(1+g)^1$	$D_7 = D_6(1+g)^1$
$11525 = 7923(1+g)^1$	$18297 = 14255(1+g)^1$	$34452 = 24489(1+g)^1$
$\therefore g = 45.46\%$	$\therefore g = 28.35\%$	$\therefore g = 40.68\%$

Average Growth Rate = $\dfrac{(89.77 + 45.46 + 23.69 + 28.35 + 33.84 + 40.68)\ \%}{6}$

$= 43.63\%$

❖ **Growth Ratio of Total Deposit of SCB**

$D_1 = D_{2001/02} = 15836$	$D_4 = D_{2004/05} = 19363$	$D_7 = D_{2007/08} = 29744$
$D_2 = D_{2002/03} = 18756$	$D_5 = D_{2005/06} = 23061$	
$D_3 = D_{2003/04} = 21161$	$D_6 = D_{2006/07} = 24647$	

Now,

$D_2 = D_1(1+g)^1$	$D_4 = D_3(1+g)^1$	$D_6 = D_5(1+g)^1$
$18756 = 15836(1+g)^1$	$19363 = 21161(1+g)^1$	$24647 = 23061(1+g)^1$
$\therefore g = 18.44\%$	$\therefore g = -8.5\%$	$\therefore g = 6.88\%$

$D_3 = D_2(1+g)^1$	$D_5 = D_4(1+g)^1$	$D_7 = D_6(1+g)^1$
$21161 = 18756(1+g)^1$	$23061 = 19363(1+g)^1$	$29744 = 24647(1+g)^1$
$\therefore g = 12.82\%$	$\therefore g = 19.09\%$	$\therefore g = 20.68\%$

Average Growth Rate = $\underline{(18.44 + 12.82 - 8.5 + 19.09 + 6.88 + 20.68)\ \%}$

$$6$$

$$= 11.57\%$$

Annex-18-B

❖ **Growth Rate of Investment of NBL**

$D_1 = D_{2001/02} = 7151$ $\qquad$ $D_4 = D_{2004/05} = 14199$ $\qquad$ $D_7 = D_{2007/08} = 16571$

$D_2 = D_{2002/03} = 12448$ $\qquad$ $D_5 = D_{2005/06} = 14490$

$D_3 = D_{2003/04} = 11005$ $\qquad$ $D_6 = D_{2006/07} = 16072$

Now,

$D_2 = D_1(1+g)^1$ $\qquad$ $D_4 = D_3(1+g)^1$ $\qquad$ $D_6 = D_5(1+g)^1$

$12448 = 7151(1+g)^1$ $\qquad$ $14199 = 11005(1+g)^1$ $\qquad$ $16072 = 14490(1+g)^1$

$\therefore g = 7.41\%$ $\qquad$ $\therefore g = 29.02\%$ $\qquad$ $\therefore g = 10.92\%$

$D_3 = D_2(1+g)^1$ $\qquad$ $D_5 = D_4(1+g)^1$ $\qquad$ $D_7 = D_6(1+g)^1$

$11005 = 12448(1+g)^1$ $\qquad$ $14490 = 14199(1+g)^1$ $\qquad$ $16571 = 16072(1+g)^1$

$\therefore g = -11.59\%$ $\qquad$ $\therefore g = 2.05\%$ $\qquad$ $\therefore g = 3.1\%$

Average Growth Rate $= \dfrac{(7.41 \ -11.59 + 29.02 + 2.05 + 10.92 + 3.1) \ \%}{6}$

$$= 6.82\%$$

❖ **Growth Rate of Investment of RBB**

$D_1 = D_{2001/02} = 4159$ $\qquad$ $D_4 = D_{2004/05} = 8416$ $\qquad$ $D_7 = D_{2007/08} = 14543$

$D_2 = D_{2002/03} = 4623$ $\qquad$ $D_5 = D_{2005/06} = 11555$

$D_3 = D_{2003/04} = 3117$ $D_6 = D_{2006/07} = 12650$

Now,

$D_2=D_1(1+g)^1$ $D_4=D_3(1+g)^1$ $D_6=D_5(1+g)^1$

$4623 = 4159(1+g)^1$ $8416 = 3117(1+g)^1$ $12650 = 11555(1+g)^1$

…$g = 11.15\%$ …$g = 170\%$ …$g = 9.48\%$

$D_3= D_2(1+g)^1$ $D_5= D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$3117 = 4623(1+g)^1$ $11555 = 8416(1+g)^1$ $14543 = 12650(1+g)^1$

…$g = -32.58\%$ …$g = 37.29\%$ …$g = 14.96\%$

Average Growth Rate = $\dfrac{(11.15 - 32.58 + 170 + 37.29 + 9.48 + 14.96)\ \%}{6}$

= 35.05%

❖ **Growth Rate of Investment of NIBL**

$D_1 = D_{2001/02} = 1822$ $D_4 = D_{2004/05} = 3934$ $D_7 = D_{2007/08} = 6874$

$D_2 = D_{2002/03} = 1705$ $D_5 = D_{2005/06} = 5603$

$D_3 = D_{2003/04} = 3862$ $D_6 = D_{2006/07} = 6506$

Now,

$D_2=D_1(1+g)^1$ $D_4=D_3(1+g)^1$ $D_6=D_5(1+g)^1$

$1705 = 1822(1+g)^1$ $3934 = 3862(1+g)^1$ $6506 = 5603(1+g)^1$

…$g = -6.42\%$ …$g = 1.86\%$ …$g = 16.12\%$

$D_3= D_2(1+g)^1$ $D_5= D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$3862 = 1705(1+g)^1$ $5603 = 3934(1+g)^1$ $6874 = 6506(1+g)^1$

…$g = 126.5\%$ …$g = 42.42\%$ …$g = 5.66\%$

Average Growth Rate = $(-6.42 + 126.5 + 1.86 + 42.42 + 16.12 + 5.66)\ \%$

$$= \frac{31.02\%}{6}$$

❖ **Growth Rate of Investment of SCB**

$D_1 = D_{2001/02} = 9276$ $D_4 = D_{2004/05} = 9703$ $D_7 = D_{2007/08} = 13903$

$D_2 = D_{2002/03} = 10216$ $D_5 = D_{2005/06} = 12847$

$D_3 = D_{2003/04} = 11360$ $D_6 = D_{2006/07} = 13553$

Now,

$D_2 = D_1(1+g)^1$ $D_4 = D_3(1+g)^1$ $D_6 = D_5(1+g)^1$

$10216 = 9276(1+g)^1$ $9703 = 11360(1+g)^1$ $13553 = 12847(1+g)^1$

$\ldots g = 10.13\%$ $\ldots g = -14.58\%$ $\ldots g = 5.49\%$

$D_3 = D_2(1+g)^1$ $D_5 = D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$11360 = 10216(1+g)^1$ $12847 = 9703(1+g)^1$ $13903 = 13553(1+g)^1$

$\ldots g = 11.2\%$ $\ldots g = 32.4\%$ $\ldots g = 2.58\%$

$$\text{Average Growth Rate} = \frac{(10.13 + 11.2 - 14.58 + 32.4 + 5.49 + 2.58)\ \%}{6}$$

$$= 7.87\%$$

Annex-18-C

❖ **Growth rate of Loan &Advances of NBL**

$D_1 = D_{2001/02} = 8638$ $D_4 = D_{2004/05} = 8219$ $D_7 = D_{2007/08} = 13251$

$D_2 = D_{2002/03} = 7971$ $D_5 = D_{2005/06} = 9756$

$D_3 = D_{2003/04} = 8882$ $D_6 = D_{2006/07} = 11058$

Now,

$D_2 = D_1(1+g)^1$ $D_4 = D_3(1+g)^1$ $D_6 = D_5(1+g)^1$

$7971 = 8638(1+g)^1$ $8219 = 8882(1+g)^1$ $11058 = 9756(1+g)^1$

$\ldots g = -7.72\%$ $\ldots g = -7.46\%$ $\ldots g = 13.35\%$

$D_3 = D_2(1+g)^1$ $D_5 = D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$8882 = 7971(1+g)^1$ $9756 = 8219(1+g)^1$ $13251 = 11058(1+g)^1$

$\ldots g = 11.43\%$ $\ldots g = 18.7\%$ $\ldots g = 19.83\%$

Average Growth Rate = $\dfrac{(10.13 + 11.2 - 14.58 + 32.4 + 5.49 + 2.58)\ \%}{6}$

= 7.87%

❖ **Growth rate of Loan &Advances of RBB**

$D_1 = D_{2001/02} = 13690$ $D_4 = D_{2004/05} = 13431$ $D_7 = D_{2007/08} = 19816$

$D_2 = D_{2002/03} = 11679$ $D_5 = D_{2005/06} = 14634$

$D_3 = D_{2003/04} = 10831$ $D_6 = D_{2006/07} = 17006$

Now,

$D_2=D_1(1+g)^1$ $D_4=D_3(1+g)^1$ $D_6=D_5(1+g)^1$

$11679 = 13690(1+g)^1$ $13431 = 10831(1+g)^1$ $17006 = 14634(1+g)^1$

…g = -14.69%   …g = 24%   … g = 16.2%

$D_3= D_2(1+g)^1$ $D_5= D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$10831 = 11679(1+g)^1$ $14634 =13431(1+g)^1$ $19816 = 17006(1+g)^1$

…g = 7.26%   … g = 8.95%   …g = 16.52%

Average Growth Rate = $\dfrac{(-14.69 +7.26 + 24 + 8.95 + 16.2 + 16.52) \%}{6}$

= 9.71%

❖ **Growth rate of Loan &Advances of NIBL**

$D_1 = D_{2001/02} = 2564$ $D_4 = D_{2004/05} = 10126$ $D_7 = D_{2007/08} = 26997$

$D_2 = D_{2002/03} = 5772$ $D_5 = D_{2005/06} = 12776$

$D_3 = D_{2003/04} = 7130$ $D_6 = D_{2006/07} = 17286$

Now,

$D_2=D_1(1+g)^1$ $D_4=D_3(1+g)^1$ $D_6=D_5(1+g)^1$

$5772 = 2564(1+g)^1$ $10126 = 7130(1+g)^1$ $17286 = 12776(1+g)^1$

…g = 125%   …g = 42.02%   … g = 35.3%

$D_3= D_2(1+g)^1$ $D_5= D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$7130 = 5772(1+g)^1$ $12776 = 10126(1+g)^1$ $26997 = 17286(1+g)^1$

…g = 23.53%   … g = 26.17%   …g = 56.18%

Average Growth Rate = $\dfrac{(125 +23.53 +42.02 + 26.17 + 35.3 + 56.18) \%}{6}$

$$= 51.37\%$$

❖ **Growth rate of Loan &Advances of SCB**

$D_1 = D_{2001/02} = 5788$ $D_4 = D_{2004/05} = 8143$ $D_7 = D_{2007/08} = 13719$

$D_2 = D_{2002/03} = 5696$ $D_5 = D_{2005/06} = 8935$

$D_3 = D_{2003/04} = 6410$ $D_6 = D_{2006/07} = 10503$

Now,

$D_2 = D_1(1+g)^1$ $D_4 = D_3(1+g)^1$ $D_6 = D_5(1+g)^1$

$5696 = 5788(1+g)^1$ $8143 = 6410(1+g)^1$ $10503 = 8935(1+g)^1$

$\ldots g = -1.59\%$ $\ldots g = 27.03\%$ $\ldots g = 17.55\%$

$D_3 = D_2(1+g)^1$ $D_5 = D_4(1+g)^1$ $D_7 = D_6(1+g)^1$

$6410 = 5696(1+g)^1$ $8935 = 8143(1+g)^1$ $13719 = 10503(1+g)^1$

$\ldots g = 12.53\%$ $\ldots g = 9.73\%$ $\ldots g = 30.62\%$

Average Growth Rate $= \dfrac{(-1.59 +12.53 +27.03 + 9.73 + 17.55 + 30.62)\ \%}{6}$

$$= 15.98\%$$

Annex-18-D

❖ **Growth Rate of Net Profit of NBL**

$D_1 = D_{2001/02} = -3071$ $\qquad$ $D_4 = D_{2004/05} = 1730$ $\qquad$ $D_7 = D_{2007/08} = 239$

$D_2 = D_{2002/03} = -251$ $\qquad$ $D_5 = D_{2005/06} = -607$

$D_3 = D_{2003/04} = 710$ $\qquad$ $D_6 = D_{2006/07} = 227$

Now,

$D_2 = D_1(1+g)^1$ $\qquad$ $D_4 = D_3(1+g)^1$ $\qquad$ $D_6 = D_5(1+g)^1$

$-251 = -3071(1+g)^1$ $\qquad$ $1730 = 710(1+g)^1$ $\qquad$ $227 = -607(1+g)^1$

$...g = -91.8\%$ $\qquad$ $...g = 143.66\%$ $\qquad$ $...g = 137.4\%$

$D_3 = D_2(1+g)^1$ $\qquad$ $D_5 = D_4(1+g)^1$ $\qquad$ $D_7 = D_6(1+g)^1$

$710 = -251(1+g)^1$ $\qquad$ $-607 = 1730(1+g)^1$ $\qquad$ $239 = 227(1+g)^1$

$...g = 382.87\%$ $\qquad$ $...g = 135.09\%$ $\qquad$ $...g = 5.29\%$

$$\text{Average Growth Rate} = \frac{(-91.8 + 382.87 + 143.66 + 135.09 + 137.4 + 5.29)\ \%}{6}$$

$$= 118.75\%$$

❖ **Growth Rate of Net Profit of RBB**

$D_1 = D_{2001/02} = -7068$ $\qquad$ $D_4 = D_{2004/05} = 1323$ $\qquad$ $D_7 = D_{2007/08} = 1770$

$D_2 = D_{2002/03} = -4839$ $\qquad$ $D_5 = D_{2005/06} = 1591$

$D_3 = D_{2003/04} = 1040$ $\qquad$ $D_6 = D_{2006/07} = 1697$

Now,

$D_2 = D_1(1+g)^1$ $\qquad$ $D_4 = D_3(1+g)^1$ $\qquad$ $D_6 = D_5(1+g)^1$

$-4839 = -7068(1+g)^1$ $\qquad$ $1323 = 1040(1+g)^1$ $\qquad$ $1697 = 1591(1+g)^1$

...$g = -31.53\%$ $\qquad$ ...$g = 27.21\%$ $\qquad$ ...$g = 6.66\%$

$D_3 = D_2(1+g)^1$ $\qquad$ $D_5 = D_4(1+g)^1$ $\qquad$ $D_7 = D_6(1+g)^1$

$1040 = -4839(1+g)^1$ $\qquad$ $1591 = 1323(1+g)^1$ $\qquad$ $1770 = 1697(1+g)^1$

...$g = 121.49\%$ $\qquad$ ...$g = 20.25\%$ $\qquad$ ...$g = 4.30\%$

Average Growth Rate $= \dfrac{(-31.53 + 121.49 + 27.21 + 20.25 + 6.66 + 4.30)\ \%}{6}$

$= 24.73\%$

❖ Growth Rate of Net Profit of NIBL

$D_1 = D_{2001/02} = 57$ $\qquad$ $D_4 = D_{2004/05} = 232$ $\qquad$ $D_7 = D_{2007/08} = 696$

$D_2 = D_{2002/03} = 116.49$ $\qquad$ $D_5 = D_{2005/06} = 350.39$

$D_3 = D_{2003/04} = 153$ $\qquad$ $D_6 = D_{2006/07} = 502$

Now,

$D_2 = D_1(1+g)^1$ $\qquad$ $D_4 = D_3(1+g)^1$ $\qquad$ $D_6 = D_5(1+g)^1$

$116.49 = 57(1+g)^1$ $\qquad$ $232 = 153(1+g)^1$ $\qquad$ $502 = 350.39(1+g)^1$

...$g = 104.37\%$ $\qquad$ ...$g = 51.63\%$ $\qquad$ ...$g = 43.27\%$

$D_3 = D_2(1+g)^1$ $\qquad$ $D_5 = D_4(1+g)^1$ $\qquad$ $D_7 = D_6(1+g)^1$

$153 = 116.49(1+g)^1$ $\qquad$ $350.39 = 232(1+g)^1$ $\qquad$ $696 = 502(1+g)^1$

...$g = 31.34\%$ $\qquad$ ...$g = 51.03\%$ $\qquad$ ...$g = 38.64\%$

Average Growth Rate $= \dfrac{(104.37 + 31.34 + 51.63 + 51.03 + 43.27 + 38.64)\ \%}{6}$

$= 53.38\%$

❖ Growth Rate of Net Profit of SCB

$D_1 = D_{2001/02} = 505$ $\quad$ $D_4 = D_{2004/05} = 536$ $\quad$ $D_7 = D_{2007/08} = 819$

$D_2 = D_{2002/03} = 507$ $\quad$ $D_5 = D_{2005/06} = 659$

$D_3 = D_{2003/04} = 537$ $\quad$ $D_6 = D_{2006/07} = 619$

Now,

$D_2 = D_1(1+g)^1$ $\quad$ $D_4 = D_3(1+g)^1$ $\quad$ $D_6 = D_5(1+g)^1$

$507 = 505(1+g)^1$ $\quad$ $536 = 537(1+g)^1$ $\quad$ $619 = 659(1+g)^1$

$\ldots g = 0.004\%$ $\quad$ $\ldots g = -0.18\%$ $\quad$ $\ldots g = -6.07\%$

$D_3 = D_2(1+g)^1$ $\quad$ $D_5 = D_4(1+g)^1$ $\quad$ $D_7 = D_6(1+g)^1$

$537 = 507(1+g)^1$ $\quad$ $659 = 536(1+g)^1$ $\quad$ $819 = 619(1+g)^1$

$\ldots g = 5.92\%$ $\quad$ $\ldots g = 22.95\%$ $\quad$ $\ldots g = 32.31\%$

Average Growth Rate $= \dfrac{(0.4 + 5.92 - 0.18 + 22.95 - 6.07 + 32.31) \%}{6}$

$\qquad\qquad\qquad = 9.22\%$

Annex-19-A

Calculation of Trend Value of Total Deposits of NBL (Rs in Million)

F/Y(X)	Total Deposit (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	34265	-3	9	-102795	33504.39
2002/03	35014	-2	4	-70028	34603.93
2003/04	35735	-1	1	-35735	35703.46
2004/05	35934	0	0	0	36803
2005/06	35830	1	1	35830	37902.54
2006/07	39014	2	4	78028	39002.07
2007/08	41829	3	9	125487	40101.61
Total	257621	0	28	30787	
2008/09		4			41201.14
2009/10		5			42300.68
2010/11		6			43400.21

Here,

$$a = \frac{y}{n} = \frac{257621}{7} = 36803$$

$$b = \frac{xy}{x^2} = \frac{30787}{28} = 1099.54$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Total Deposits of RBB (Rs in Million)

F/Y(X)	Total Deposit (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	38993	-3	9	-116979	36231.21
2002/03	39402	-2	4	-78804	39245
2003/04	40867	-1	1	-40867	42258.79
2004/05	43016	0	0	0	45272.57
2005/06	46195	1	1	46195	48286.36
2006/07	50464	2	4	100928	51300.14
2007/08	57971	3	9	173913	54313.93
Total	316908	0	28	84386	
2008/09		4			57327.71
2009/10		5			60341.5
2010/11		6			63355.28

Here,

$$a = \frac{y}{n} = \frac{316908}{7} = 45272.57$$

$$b = \frac{xy}{x^2} = \frac{84386}{28} = 3013.79$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Total Deposits of NIBL (Rs in Million)

F/Y(X)	Total Deposit (y)	x (X-2005)	x^2	xy	yc = a +bx
2001/02	4175	-3	9	-12525	2460.32
2002/03	7923	-2	4	-15846	7151.93
2003/04	11525	-1	1	-11525	11843.54
2004/05	14255	0	0	0	16535.14
2005/06	18927	1	1	18927	21226.75
2006/07	24489	2	4	48978	25918.36
2007/08	34452	3	9	103356	30609.96
Total	115746	0	28	131365	
2008/09		4			35301.57
2009/10		5			39993.18
2010/11		6			44684.79

Here,

$$a = \frac{y}{n} = \frac{115746}{7} = 16535.14$$

$$b = \frac{xy}{x^2} = \frac{131365}{28} = 4691.61$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Total Deposits of SCB   **(Rs in Million)**

F/Y(X)	Total Deposit (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	15836	-3	9	-47508	15859.07
2002/03	18756	-2	4	-37512	17837.86
2003/04	21161	-1	1	-21161	19816.64
2004/05	19363	0	0	0	21795.43
2005/06	23061	1	1	23061	23774.21
2006/07	24647	2	4	49294	25753
2007/08	29744	3	9	89232	27731.79
Total	152568	0	28	55406	
2008/09		4			29710.57
2009/10		5			31689.36
2010/11		6			33668.14

Here,

$$a = \frac{y}{n} = \frac{152568}{7} = 21795.43$$

$$b = \frac{xy}{x^2} = \frac{55406}{28} = 1978.79$$

The equation of st. line trend is $y_c = a + bx$

Annex-19-B

Calculation of Trend Value of Investment of NBL   **(Rs in Million)**

F/Y (X)	Investment (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	7151	-3	9	-21453	8955.89
2002/03	12448	-2	4	-24896	10348.5
2003/04	11005	-1	1	-11005	11741.11
2004/05	14199	0	0	0	13133.71
2005/06	14490	1	1	14490	14526.32
2006/07	16072	2	4	32144	15918.93
2007/08	16571	3	9	49713	17311.54
Total	91936	0	28	38993	
2008/09		4			18704.14
2009/10		5			20096.75
2010/11		6			21489.35

Here,

$$a = \frac{y}{n} = \frac{91936}{7} = 13133.71$$

$$b = \frac{xy}{x^2} = \frac{38993}{28} = 1392.61$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Investment of RBB (Rs in Million)

F/Y(X)	Investment (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	4159	-3	9	-12477	2475.71
2002/03	4623	-2	4	-9246	4463
2003/04	3117	-1	1	-3117	6450.29
2004/05	8416	0	0	0	8437.57
2005/06	11555	1	1	11555	10424.86
2006/07	12650	2	4	25300	12412.14
2007/08	14543	3	9	43629	14399.43
Total	59063	0	28	55644	
2008/09		4			16386.71
2009/10		5			18374
2010/11		6			20361.28

Here,

$$a = \frac{y}{n} = \frac{59063}{7} = 8437.57$$

$$b = \frac{xy}{x^2} = \frac{55644}{28} = 1987.29$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Investment of NIBL   (Rs in Million)

F/Y(X)	Investment (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	1822	-3	9	-5466	1490.25
2002/03	1705	-2	4	-3410	2436.64
2003/04	3862	-1	1	-3862	3383.04
2004/05	3934	0	0	0	4329.43
2005/06	5603	1	1	5603	5275.82
2006/07	6506	2	4	13012	6222.21
2007/08	6874	3	9	20622	7168.61
Total	30306	0	28	26499	
2008/09		4			8115
2009/10		5			9061.39
2010/11		6			10007.78

Here,

$$a = \frac{y}{n} = \frac{30306}{7} = 4329.43$$

$$b = \frac{xy}{x^2} = \frac{26499}{28} = 946.39$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Investment of SCB   (Rs in Million)

F/Y(X)	Investment (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	9276	-3	9	-27828	9189.5
2002/03	10216	-2	4	-20432	9976.71
2003/04	11360	-1	1	-11360	10763.93
2004/05	9703	0	0	0	11551.14
2005/06	12847	1	1	12847	12338.36
2006/07	13553	2	4	27106	13125.57
2007/08	13903	3	9	41709	13912.79
Total	80858	0	28	22042	
2008/09		4			14700
2009/10		5			15487.21
2010/11		6			16274.43

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Here,

$$a = \frac{y}{n} = \frac{80858}{7} = 11551.14$$

$$b = \frac{xy}{x^2} = \frac{22042}{28} = 787.21$$

The equation of st. line trend is $y_c = a + bx$

Annex-19-C

Calculation of Trend Value of Loan & Advances of NBL   (Rs in Million)

F/Y(X)	Loan & Advances (y)	x (X-2005)	x²	xy	$y_c = a + bx$
2001/02	8638	-3	9	-25914	7444.25
2002/03	7971	-2	4	-15942	8190.21
2003/04	8882	-1	1	-8882	8936.18
2004/05	8219	0	0	0	9682.14
2005/06	9756	1	1	9756	10428.11
2006/07	11058	2	4	22116	11174.07
2007/08	13251	3	9	39753	11920.04
Total	67775	0	28	20887	
2008/09		4			12666
2009/10		5			13411.96
2010/11		6			14157.93

Here,

$$a = \frac{y}{n} = \frac{67775}{7} = 9682.14$$

$$b = \frac{xy}{x^2} = \frac{20887}{28} = 745.96$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Loan & Advances of RBB (Rs in Million)

F/Y(X)	Loan & Advances (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	13690	-3	9	-41070	10922.96
2002/03	11679	-2	4	-23358	12095.64
2003/04	10831	-1	1	-10831	13268.32
2004/05	13431	0	0	0	14441
2005/06	14634	1	1	14634	15613.68
2006/07	17006	2	4	34012	16786.36
2007/08	19816	3	9	59448	17959.04
Total	101087	0	28	32835	
2008/09		4			19131.71
2009/10		5			20304.39
2010/11		6			21477.07

Here,

$$a = \frac{y}{n} = \frac{101087}{7} = 14441$$

$$b = \frac{xy}{x^2} = \frac{32835}{28} = 1172.68$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Loan & Advances of NIBL (Rs in Million)

F/Y(X)	Loan & Advances (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	2564	-3	9	-7692	881.61
2002/03	5772	-2	4	-11544	4523.5
2003/04	7130	-1	1	-7130	8165.39
2004/05	10126	0	0	0	11807.29
2005/06	12776	1	1	12776	15449.18
2006/07	17286	2	4	34572	19091.07
2007/08	26997	3	9	80991	22732.96
Total	82651	0	28	101973	
2008/09		4			26374.86
2009/10		5			30016.75
2010/11		6			33658.64

Here,

$$a = \frac{y}{n} = \frac{82651}{7} = 11807.29$$

$$b = \frac{xy}{x^2} = \frac{101973}{28} = 3641.89$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Loan & Advances of SCB   (Rs in Million)

F/Y(X)	Loan & Advances (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	5788	-3	9	-17364	4606.43
2002/03	5696	-2	4	-11392	5889.71
2003/04	6410	-1	1	-6410	7173
2004/05	8143	0	0	0	8456.29
2005/06	8935	1	1	8935	9739.57
2006/07	10503	2	4	21006	11022.86
2007/08	13719	3	9	41157	12306.14
Total	59194	0	28	35932	
2008/09		4			13589.43
2009/10		5			14872.71
2010/11		6			16156

Here,

$$a = \frac{y}{n} = \frac{59194}{7} = 8456.29$$

$$b = \frac{xy}{x^2} = \frac{35932}{28} = 1283.29$$

The equation of st. line trend is $y_c = a + bx$

Annex-19-D

Calculation of Trend Value of Net Profit of NBL   (Rs in Million)

F/Y(X)	Net Profit (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	-3071	-3	9	9213	-1106.61
2002/03	-251	-2	4	502	-700.07
2003/04	710	-1	1	-710	-293.54
2004/05	1730	0	0	0	113
2005/06	1207	1	1	1207	519.54
2006/07	227	2	4	454	926.07
2007/08	239	3	9	717	1332.61
Total	791	0	28	11383	
2008/09		4			1739.14
2009/10		5			2145.68
2010/11		6			2552.21

Here,

$$a = \frac{y}{n} = \frac{791}{7} = 113$$

$$b = \frac{xy}{x^2} = \frac{11383}{28} = 406.54$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Net Profit of RBB   (Rs in Million)

F/Y(X)	Net Profit (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	-7068	-3	9	21204	-4941.25
2002/03	-4839	-2	4	9678	-3507.79
2003/04	1040	-1	1	-1040	-2074.32
2004/05	1323	0	0	0	-640.86
2005/06	1591	1	1	1591	792.61
2006/07	1697	2	4	3394	2226.07
2007/08	1770	3	9	5310	3659.54
Total	-4486	0	28	40137	
2008/09		4			5093
2009/10		5			6526.46
2010/11		6			7959.93

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Here,

$$a = \frac{y}{n} = \frac{-4486}{7} = -640.86$$

$$b = \frac{xy}{x^2} = \frac{40137}{28} = 1433.46$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Net Profit of NIBL   (Rs in Million)

F/Y(X)	Net Profit (y)	x (X-2005)	x²	xy	y_c = a + bx
2001/02	57	-3	9	-171	-8.17
2002/03	116.49	-2	4	-232.98	94.88
2003/04	153	-1	1	-153	197.93
2004/05	232	0	0	0	300.98
2005/06	350.4	1	1	350.4	404.04
2006/07	502	2	4	1004	507.08
2007/08	696	3	9	2088	610.14
Total	2106.89	0	28	2885.42	
2008/09		4			713.19
2009/10		5			816.24
2010/11		6			919.29

Here,

$$a = \frac{y}{n} = \frac{2106.89}{7} = 300.98$$

$$b = \frac{xy}{x^2} = \frac{2885.42}{28} = 103.05$$

The equation of st. line trend is $y_c = a + bx$

Calculation of Trend Value of Net Profit of SCB (Rs in Million)

F/Y(X)	Net Profit (y)	x (X-2005)	x^2	xy	$y_c = a + bx$
2001/02	505	-3	9	-1515	454.29
2002/03	507	-2	4	-1014	505.43
2003/04	537	-1	1	-537	556.57
2004/05	536	0	0	0	607.71
2005/06	659	1	1	659	658.86
2006/07	691	2	4	1382	710
2007/08	819	3	9	2457	761.14
Total	4254	0	28	1432	
2008/09		4			812.29
2009/10		5			863.43
2010/11		6			914.57

Here,

$$a = \frac{y}{n} = \frac{4254}{7} = 607.71$$

$$b = \frac{xy}{x^2} = \frac{1432}{28} = 51.14$$

The equation of st. line trend is $y_c = a + bx$

Coefficient of correlation between Deposit and Investment of NBL (Rs. in million)

Fiscal Year	Deposit (X)	Investment (Y)	X^2	Y^2	XY
2001/02	34265	7151	245029015	51136801	245029015
2002/03	35014	12448	435854272	154952704	435854272
2003/04	35735	11005	393263675	121110025	393263675
2004/05	35934	14199	510226866	201611601	510226866
2005/06	35830	14490	519176700	209960100	519176700
2006/07	39014	16072	627033008	258309184	627033008
2007/08	41829	16571	693148359	274598041	693148359
	257621	91936	3423731895	1271678456	3423731895

Here,

N = 7 $\qquad$ X = 257621 $\qquad$ X^2 = 3423731895

$\quad$ XY = 3423731895 $\qquad$ Y = 91936 $\qquad$ Y^2 = 1271678456

Coefficient of correlation (r) can be calculated by using the following formula:

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}\sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 3423731895 - 257621 \times 91936}{\sqrt{7 \times 3423731895 - (257621)^2}\sqrt{7 \times 1271678456 - (91936)^2}}$$

$$= \frac{281479009}{366269241.6}$$

$\therefore$ r = 0.7685

$\quad$ r^2 = 0.5905

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.5905}{\sqrt{7}}$$

$$= 0.1043$$

6P.Er = 6 × 0. 1043

$\qquad$ = 0.6262

Coefficient of correlation between Deposit and Investment of RBB (Rs. in million)

Fiscal Year	Deposit (X)	Investment (Y)	X^2	Y^2	XY
2001/02	38993	4159	1520454049	17297281	162171887
2002/03	39402	4623	1552517604	21372129	182155446
2003/04	40867	3117	1670111689	9715689	127382439
2004/05	43016	8416	1850376256	70829056	362022656
2005/06	46195	11555	2133978025	133518025	533783225
2006/07	50464	12650	2546615296	160022500	638369600
2007/08	57971	14543	3360636841	211498849	843072253
	316908	59063	14634689760	624253529	2848957506

Here,

N = 7   X = 316908 X^2 = 14634689760

  XY = 2848957506   Y = 59063 Y^2 = 624253529

Coefficient of correlation (r) can be calculated by using the following formula:

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}\sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 2848957506 - 316908 \times 59063}{\sqrt{7 \times 14634689760 - (316908)^2} \sqrt{7 \times 624253529 - (59063)^2}}$$

$$= \frac{1225165338}{1331683078}$$

∴ r = 0.9200

  r^2 = 0.8464

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.8464}{\sqrt{7}}$$

$$= 0.0391$$

$$6P.Er = 6 \times 0.0391$$

$$= 0.2349$$

Coefficient of correlation between Deposit and Investment of NIBL (Rs. in million)

Fiscal Year	Deposit (X)	Investment (Y)	X^2	Y^2	XY
2001/02	4175	1822	17430625	3319684	7606850
2002/03	7923	1705	62773929	2907025	13508715
2003/04	11525	3862	132825625	14915044	44509550
2004/05	14255	3934	203205025	15476356	56079170
2005/06	18927	5603	358231329	31393609	106047981
2006/07	24489	6506	599711121	42328036	159325434
2007/08	34452	6874	1186940304	47251876	236823048
	115746	30306	2561117958	157591630	623900748

Here,

$N = 7$ $\qquad X = 115746 \qquad X^2 = 2561117958$

$\quad XY = 623900748 \qquad Y = 30306 \qquad Y^2 = 157591630$

Coefficient of correlation (r) can be calculated by using the following formula:

$$ r \times \frac{N \quad xy Z \quad x \quad y}{\sqrt{N \quad x^2 Zf \quad xÅ}\sqrt{N \quad y^2 Zf \quad yÅ}} $$

$$ \times \frac{f7 \mid 623900748 AZ fi15746 \mid 30306A}{\sqrt{f7 \mid 2561117958 AZ fi15746Å}\sqrt{f7 \mid 157591630 AZ f30306Å}} $$

$$ \times \frac{859506960}{914747452.1} $$

mr = 0.9396

$r^2 = 0.8828$

Calculation of Probable Error;

$$ P.Er. = 0.6745 \times \frac{1 Z r^2}{\sqrt{N}} $$

$$ = 0.6745 \times \frac{1 Z 0.8828}{\sqrt{7}} $$

$$ = 0.0298 $$

6P.Er = 6 × 0. 0298

$$= 0.1791$$

Coefficient of correlation between Deposit and Investment of SCB (Rs. in million)

Fiscal Year	Deposit (X)	Investment (Y)	X^2	Y^2	XY
2001/02	15836	9276	250778896	86044176	146894736
2002/03	18756	10216	351787536	104366656	191611296
2003/04	21161	11360	447787921	129049600	240388960
2004/05	19363	9703	374925769	94148209	187879189
2005/06	23061	12847	531809721	165045409	296264667
2006/07	24647	13553	607474609	183683809	334040791
2007/08	29744	13903	884705536	193293409	413530832
	152568	80858	3449269988	955631268	1810610471

Here,

N = 7	X = 152568	X^2 = 3449269988
XY = 1810610471	Y = 80858	Y^2 = 955631268

Coefficient of correlation (r) can be calculated by using the following formula:

$$r X \frac{N \quad xy Z \quad x \quad y}{\sqrt{N \quad x^2 Z f \quad xÅ}\sqrt{N \quad y^2 Z f \quad yÅ}}$$

$$X \frac{f7 \mid 1810610471 AZ f 152568 \mid 80858 A}{\sqrt{f7 \mid 3449269988 AZ f 152568 Å} \sqrt{f7 \mid 95563126 AZ f 80858 Å}}$$

$$X \frac{337929953}{362493725.4}$$

mr = 0.9322

$$r^2 = 0.8690$$

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 Z r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 Z 0.8690}{\sqrt{7}}$$

$$= 0.0333$$

6P.Er = 6 × 0. 0333

$= 0.2002$

Annex-20-B

Coefficient of Correlation bet. Deposit and Loan & Advances of NBL(Rs. in million)

Fiscal Year	Deposit (X)	Loan & advances (Y)	X^2	Y^2	XY
2001/02	34265	8638	1174090225	74615044	295981070
2002/03	35014	7971	1225980196	63536841	279096594
2003/04	35735	8882	1276990225	78889924	317398270
2004/05	35934	8219	1291252356	67551961	295341546
2005/06	35830	9756	1283788900	95179536	349557480
2006/07	39014	11058	1522092196	122279364	431416812
2007/08	41829	13251	1749665241	175589001	554276079
	257621	67775	9523859339	677641671	2523067851

Here,

$$N = 7 \qquad X = 257621 \qquad X^2 = 9523859339$$
$$XY = 2523067851 \qquad Y = 67775 \qquad Y^2 = 677641671$$

Coefficient of correlation (r) can be calculated by using the following formula:

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}\sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 2523067851 - 257621 \times 67775}{\sqrt{7 \times 9523859339 - (257621)^2}\sqrt{7 \times 677641671 - (67775)^2}}$$

$$= \frac{201211682}{211607223.8}$$

$$r = 0.9508$$

$$r^2 = 0.9041$$

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.9041}{\sqrt{7}}$$

$$= 0.0244$$

6P.Er = 6 × 0. 0244

$\quad$ = 0.1465

Coefficient of Correlation bet. Deposit and Loan & Advances of RBB(Rs. in million)

Fiscal Year	Deposit (X)	Loan & advances (Y)	X^2	Y^2	XY
2001/02	38993	13690	1520454049	187416100	533814170
2002/03	39402	11679	1552517604	136399041	460175958
2003/04	40867	10831	1670111689	117310561	442630477
2004/05	43016	13431	1850376256	180391761	577747896
2005/06	46195	14634	2133978025	214153956	676017630
2006/07	50464	17006	2546615296	289204036	858190784
2007/08	57971	19816	3360636841	392673856	1148753336
	316908	101087	14634689760	1517549311	4697330251

Here,

N = 7 $\qquad\qquad$ X = 316908 $\qquad\qquad$ X^2 = 14634689760

$\quad$ XY = 4697330251 $\qquad$ Y = 101087 $\qquad\qquad$ Y^2 = 1517549311

Coefficient of correlation (r) can be calculated by using the following formula:

$$r X \frac{N \quad xy Z \quad x \quad y}{\sqrt{N \quad x^2 Zf \quad xÅ}\sqrt{N \quad y^2 Zf \quad yÅ}}$$

$$X \frac{f7 \mid 4697330251 Å Zf 316908 \mid 101087 Å}{\sqrt{f7 \mid 14634689760 Å Zf 316908 Å}\sqrt{f7 \mid 1517549311 Å Zf 101087 Å}}$$

$$X \frac{846032761}{901908061.9}$$

mr = 0.9380

$\quad$ r^2 = 0.8799

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 Z r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 Z 0.8799}{\sqrt{7}}$$

$$= 0. 0306$$

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$6P.Er = 6 \times 0.0306$

$= 0.1836$

Coefficient of correlation bet. Deposit and Loan & Advances of NIBL(Rs. in million)

Fiscal Year	Deposit (X)	Loan & advances (Y)	X^2	Y^2	XY
2001/02	4175	2564	17430625	6574096	10704700
2002/03	7923	5772	62773929	33315984	45731556
2003/04	11525	7130	132825625	50836900	82173250
2004/05	14255	10126	203205025	102535876	144346130
2005/06	18927	12776	358231329	163226176	241811352
2006/07	24489	17286	599711121	298805796	423316854
2007/08	34452	26997	1186940304	728838009	930100644
	115746	82651	2561117958	1384132837	1878184486

Here,

$N = 7$ $X = 115746$ $X^2 = 14634689760$

$XY = 1878184486$ $Y = 82651$ $Y^2 = 1384132837$

Coefficient of correlation (r) can be calculated by using the following formula:

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}\sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 1878184486 - 15746 \times 82651}{\sqrt{7 \times 14634689760 - (15746)^2}\sqrt{7 \times 1384132837 - (82651)^2}}$$

$$= \frac{3580768756}{3598269174}$$

$\therefore r = 0.9951$

$r^2 = 0.9902$

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.9902}{\sqrt{7}}$$

$$= 0.0024$$

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$6P.Er = 6 \times 0.0024$

$= 0.0148$

Coefficient of correlation bet. Deposit and Loan & Advances of SCB(Rs. in million)

Fiscal Year	Deposit (X)	Loan & Advances (Y)	X^2	Y^2	XY
2001/02	15836	5788	250778896	33500944	91658768
2002/03	18756	5696	351787536	32444416	106834176
2003/04	21161	6410	447787921	41088100	135642010
2004/05	19363	8143	374925769	66308449	157672909
2005/06	23061	8935	531809721	79834225	206050035
2006/07	24647	10503	607474609	110313009	258867441
2007/08	29744	13719	884705536	188210961	408057936
	152568	59194	3449269988	551700104	1364783275

Here,

$N = 7$ $\qquad X = 152568$ $\qquad X^2 = 3449269988$

$\quad XY = 1364783275$ $\qquad Y = 59194$ $\qquad Y^2 = 551700104$

Coefficient of correlation (r) can be calculated by using the following formula:

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}\sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 1364783275 - 152568 \times 59194}{\sqrt{7 \times 3449269988 - (152568)^2}\sqrt{7 \times 551700104 - (59194)^2}}$$

$$= \frac{522372733}{557388038.5}$$

$mr = 0.9371$

$r^2 = 0.8783$

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.8783}{\sqrt{7}}$$

$$= 0.0310$$

$6P.Er = 6 \times 0.0310$

$= 0.1861$

<p align="center">**Annex-20-C**</p>

<p align="center">**Coefficient of correlation between Investment and Net Profit of NBL (Rs. In million)**</p>

Fiscal Year	Investment (X)	Net Profit (Y)	X^2	Y^2	XY
2001/02	7151	-3071	51136801	9431041	-21960721
2002/03	12448	-251	154952704	63001	-3124448
2003/04	11005	710	121110025	504100	7813550
2004/05	14199	1730	201611601	2992900	24564270
2005/06	14490	1207	209960100	1456849	17489430
2006/07	16072	227	258309184	51529	3648344
2007/08	16571	239	274598041	57121	3960469
	91936	791	1271678456	14556541	32390894

Here,

$N = 7$ $\qquad X = 91936 \qquad X^2 = 1271678456$

$XY = 32390984 \qquad Y = 791 \qquad Y^2 = 14556541$

Coefficient of correlation (r) can be calculated by using the following formula:

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}\sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 32390984 - 91936 \times 791}{\sqrt{7 \times 1271678456 - (91936)^2}\sqrt{7 \times 14556541 - (791)^2}}$$

$$= \frac{154014882}{213361311}$$

$\therefore r = 0.7218$

$r^2 = 0.5211$

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.5210}{\sqrt{7}}$$

$$= 0.1221$$

6P.Er = 6 × 0. 1220

= 0.7326

Coefficient of correlation between Investment and Net Profit of RBB (Rs. In million)

Fiscal Year	Investment (X)	Net Profit (Y)	X^2	Y^2	XY
2001/02	4159	-7068	17297281	49956624	-29395812
2002/03	4623	-4839	21372129	23415921	-22370697
2003/04	3117	1040	9715689	1081600	3241680
2004/05	8416	1323	70829056	1750329	11134368
2005/06	11555	1591	133518025	2531281	18384005
2006/07	12650	1697	160022500	2879809	21467050
2007/08	14543	1770	211498849	3132900	25741110
	59063	-4486	624253529	84748464	28201704

Here,

N = 7   X = 59063 X^2 = 624253529

  XY = 28201704   Y = -4486 Y^2 = 84748464

Coefficient of correlation (r) can be calculated by using the following formula:

$$r \, X \frac{N \quad xy \, Z \quad x \quad y}{\sqrt{N \quad x^2 \, Zf \quad xÅ}\sqrt{N \quad y^2 \, Zf \quad yÅ}}$$

$$X \frac{f7 \mid 28201704 \, AZ \, f58063 \mid Z4486A}{\sqrt{f7 \mid 624253529 \, AZ \, f59063Å} \sqrt{f7 \mid 84748464 \, AZ \, fZ4486Å}}$$

$$X \frac{462368546}{710709046}$$

mr = 0.6506

  r^2 = 0.4232

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 Z r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 Z 0.4232}{\sqrt{7}}$$

$$= 0. 1470$$

$6P.Er = 6 \times 0.1470$

$= 0.8822$

Coefficient of correlation between Investment and Net Profit of NIBL (Rs. In million)

Fiscal Year	Investment (X)	Net Profit (Y)	X^2	Y^2	XY
2001/02	1822	57	3319684	3249	103854
2002/03	1705	116.49	2907025	13569.9201	198615.45
2003/04	3862	153	14915044	23409	590886
2004/05	3934	232	15476356	53824	912688
2005/06	5603	350.4	31393609	122780.16	1963291.2
2006/07	6506	502	42328036	252004	3266012
2007/08	6874	696	47251876	484416	4784304
	30306	2106.89	157591630	953252	11819650.65

Here,

$N = 7$ $X = 30306$ $X^2 = 157591630$

$XY = 11819650.65$ $Y = 2106.89$ $Y^2 = 953252$

Coefficient of correlation (r) can be calculated by using the following formula:

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}\sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \mid 11819650.65 - \mid 30306 \mid 2106.89}{\sqrt{7 \mid 157591630 - (30306)} \sqrt{7 \mid 157591630 - (2106.89)}}$$

$$= \frac{18886146.21}{20311368.43}$$

$mr = 0.9298$

$r^2 = 0.8646$

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$= 0.6745 \times \frac{1 - 0.8645}{\sqrt{7}}$$

$$= 0.0345$$

$6P.Er = 6 \times 0.0345$

$\qquad = 0.2071$

Coefficient of correlation between Deposit and Net Profit of SCB (Rs. In million)

Fiscal Year	Investment (X)	Net Profit (Y)	X^2	Y^2	XY
2001/02	9276	505	86044176	255025	4684380
2002/03	10216	507	104366656	257049	5179512
2003/04	11360	537	129049600	288369	6100320
2004/05	9703	536	94148209	287296	5200808
2005/06	12847	659	165045409	434281	8466173
2006/07	13553	691	183683809	477481	9365123
2007/08	13903	819	193293409	670761	11386557
	80858	4254	955631268	2670262	50382873

Here,

$N = 7$ $\qquad X = 80858$ $\qquad X^2 = 955631268$

$\quad XY = 50382873$ $\qquad Y = 4254$ $\qquad Y^2 = 2670262$

Coefficient of correlation (r) can be calculated by using the following formula:

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2}\sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{7 \times 50382873 - 80858 \times 4254}{\sqrt{7 \times 2670262 - (80858)^2}\sqrt{7 \times 2670262 - (4254)^2}}$$

$$= \frac{8710179}{9493827.45}$$

$\therefore r = 0.9175$

$\quad r^2 = 0.8417$

Calculation of Probable Error;

$$P.Er. = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

$$\qquad = 0.6745 \times \frac{1 - 0.8417}{\sqrt{7}}$$

$$\qquad = 0.0403$$

$$6P.Er = 6 \times 0.0345$$
$$= 0.2421$$

BIBLIOGRAPHY

Books:

American Institute of Banking (1972), *"Principal of bank operation"*, U.S.A.

Battacharya, H. (1998), *"Banking strategy, Credit Appraisal and Lending Decision A Risk Return Framework"*, First Edition, Oxford University Press, Delhi.

Berley, J.B. (1987), *"Banking Management"* Subject Publication, New Delhi.

Gupta, J.B. (2003), *"Background Material for Management Accounting and Financial Analysis"*, Shalimar Bagh, Delhi.

Halter, O.G. (1992), *"Banks Investments and Funds Management"*, 2nd Edition, Macmillan India Ltd., Delhi.

Kothari, C.R. (1989), *"Research Methodology, Methods and Techniques"*, Willey Eastery Ltd, New Delhi.

Pandey, I.M. (1999), *"Financial Management"*, 8th Edition, Vikash Publishing House Pvt. Ltd., New Delhi.

Shrestha, S. (1995), *"Portfolio Behaviour of Commercial Banks in Nepal"*, Baneshwor, Kathmandu Nepal.

William F. Sharpe, Gordon J. Alexander and Jeffery V. Baily, (2000), *"Investment"*, Prentice Hall Pvt. Ltd., New Delhi.

Unpublished Master Thesis:

Adhikari, S.K. (1997), *"A research report of Financial Performance of Nepal Industrial Development Corporation"*, Institute of Business Administration & Commerce, Tribhuvan University, Kritipur.
.

Bhattarai, R. (1978), *"Lending Policy of Commercial Banks in Nepal"*, Tribhuvan University, Kritipur.

Bohara, B.R.(1992), *"A Comparative Study of Financial Performance of Nepal Arab Bank Ltd. and Nepal Indosuez Bank Ltd"*, Tribhuvan University, Kritipur.

Karmacharya, N.M. (1980), *"A Study on the Deposit Mobilization by the Nepal Bank Ltd."*, Tribhuvan University, Kritipur.

Maharjan, G. (2008), *"Investment Policy of Commercial Banks in Nepal"*, Patan Multiple Campus, Patandhoka.

Panta, K.C. (2003), *"A study on the investment policy analysis of Standard Chartered Bank Nepal Ltd: In comparison to other commercial banks"*, Tribhuvan University, Kritipur.

Pradhan, N.M. (1980), *"A Study on Investment Policy of Nepal Bank Ltd"*, Tribhuvan University, Kritipur.

Thapa, S. (2001), *"A Comparative Study on investment policy of Nepal Bangladesh Bank Ltd. & Other Joint Venture Banks"*, Shanker Dev Campus, Kathmandu.

Articles and Directories:

Kishi, D. L. (1996), *"The Changing Face of the Banking Sector and the HMG/N recent budgetary policy"*, Nepal Bank Patrika, NBL, Kathmandu.

Moursis, F. (1990), *"Latin America's Banking System in the 1980s"*, World Bank Discussion Paper 81, The World Bank, Washington D.C.

Nepal Bank Limited, 2001/02 to 2007/08, *"Annual Reports"*.

Nepal Investment Bank Limited, 2001/02 to 2007/08, *"Annual Reports"*.

Pradhan, S.M. (2005), *"Issues and Modalities of Bank Restructuring"*, The Institution of Chartered Accountant of Nepal, Babarmahal, Ktm, Nepal.

Rastriya Banijya Bank , 2001/02 to 2007/08, *"Annual Reports"*.

Rastriya Banijya Bank Ltd. (2063, 2064 & 2065) *"Souvenir"*.

Sharma, B. (2002), *"Banking   the future competition"*, Business Age, November edition.

Shrestha, R. L. (1988), *"A Study on Deposits and Credits of Commercial Bank in Nepal"*, Rastriya Banijya Bank, Kathmandu.

Standard Chartered Bank Limited, 2001/02 to 2007/08, *"Annual Reports"*.

Thapa, G. (1994), *"Financial System of Nepal"*, Development Division, PMC.

Electronic Sources

www.mof.org.np.

www.nepalbank.com.np

www.nepallawcommission.com.np

www.nepalstock.com

www.nibl.com.np

www.nrb.org.np

www.rbb.com.np

www.standaredchartered.com.