CHAPTER - I

INTRODUCTION

1.1   Background of the Study

Investment simply means the purchase of paper assets i.e.; shares, bonds, debentures, convertibles etc by postponing present consumptions for future. "Investment is defined simple to be sacrifice of current consumption for future consumption whose main objectives is to maximization of wealth. Investment generally involves real assets or financial assets. Real assets are tangible, material things and financial assets involve contract written on pieces of papers such as common stocks, bonds and debentures.

But in the study the word investment conceptualized the investment of income, savings or other collected fund. The term investment covers a wide range of activities. It is commonly known fact that an investment is only possible where there adequate savings. If all the incomes and savings are consumed to solve the problem of hand to mouth and to the other basic needs. Then there is no existence of investment. Therefore, both savings and investment are interrelated.

"A distinction is often made between investment and savings. Saving is defined as foregone consumption; investment is restricted to "real" investment of the sort that increases national output in the future."*(Shape and Alexander, Fourth Edition: 1)*

Investment is concerned with the management of an investor's wealth which is the sun of current income and the present value of all future income. Funds to invest come from assets already owned borrowed money and savings or forgone consumption by forgoing today and investing the savings, investors expect to enhance their future consumption possibilities i.e. they are invested to increase wealth. Investors also seek to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and factors.

There are mainly three concepts of investment:

i.   Economic investment- that is, an economist's definition of Investment.

ii.   Investment in a more general or extended sense, which is used by "the man of street" and

iii.   The sense in which we are going to be very much interested, namely financial investment. *(Bhalla;1983:2)*

"The problem of investor is to select the funds whose objectives and degree of risk taking most closely match is own situation – the one that will accomplish for him what he would wish to do for him self if he could diversify and manage his own holdings." *(Encyclopedia Vol. 10: 488)*

Investment is the use of money to earn income or profit. The term also refers to the expenditure of funds for capital goods – such items as factories, farm equipment, livestock and machinery. Capital goods are used to produce other goods or services. Many people invest part of their income for future financial gain. Others make investments to protect the purchasing power of their savings against rising prices.

"Investment promotes economic growth and contributes to a nation's wealth. When people deposit money in a saving account in a bank for example, the bank may invest by lending the funds of various business companies. These firms, in return, may invest the money in new factories and equipment to increase their production. In addition to borrowing from the banks, most companies issue stocks and bonds that they sell to investors to raise capital needed for business expansion. Government also issues bonds to obtain funds to invest in such projects as the construction of dams, roads and schools. All such investment by individuals, business and government involves a present sacrifice of income to get an expected future benefits. As a result, investment raises a nation's standard of living."*(Encyclopedia Vol. 10: 323)*

Investment policy is an important ingredient of overall national economic development because it ensures efficient allocation of fund to achieve the materials and economic well being of the society as a whole. In this regard, Joint Venture banks' investment policy pushes to drive to achieve priority of commercial sector in the field of Nepal's economic development.

1.1.1 Meaning and Concept of Banking

The concept of banking has been developed from the ancient history with the effort of ancient goldsmiths who developed the practice of storing people's gold and

valuables. Under such arrangement the depositors would have their gold for safekeeping and given a receipt by gold smith. Whenever the receipt was presented, the depositors would get back their gold and valuables after paying a small amount as fee for safe keeping and serving"(*Samulson, Economics, 9th edition*)

The term bank was originated from Italian word Banco. Now it keeps a specific meaning. Bank is financial institution, which plays a significant role in the development of the country. It facilitates the growth of trade and industry of the national economy. However, bank is a resource for economic development, which maintains the self-confidence of various segments of society and extends credit to the people.

"A bank is a business organization that receives and holds deposits of funds from others makes loans or extends credits and transfers funds by written orders of depositors" *(Encyclopedia Vol.3:1984)*

"The business of banking is one of collecting funds from the community and extending credit (making loans) to people for useful purpose. Banks have played a pivotal role in moving money from lenders to borrowers. Banking is a profit seeking business not a community charity. As a profit seeker, it is expected to pay dividends and otherwise add to the wealth of its shareholders" *(Rebort, 1980:73-74)*

"The more developed financial system of the world characteristically fall into three parts: The central bank, the commercial banks and other financial institution. They are also known as financial intermediaries." *(Sayer, 1976:16)*

The concept of banking system was introduced in Nepal with the establishment of Nepal Bank Ltd. In1937A.D. In Nepalese context, now a days, three types of banks are being operated by performing their activities in different sectors, such as Central Bank (Nepal Rastra Bank), Commercial Banks and Development Banks. Under Commercial Banks, there are two types of banks. One is being operated by government sectors and foreign partners with sharing national investors are operating other.

Some of the definition of a bank

According to Kent "A Bank is an organization whose principal operations are concerned with the accumulation of the temporarily idle money of the general public for the purpose of advancing to other for expenditure".

According to Crowther, "The banker's business is to take the debts of other people to offer his own in exchange, and thereby create money."

As per Banking regulation set of India "Banking means the accepting for the purpose of lending or investment of deposit of money from the public repayable on demand or other wise withdrawal by cheque, draft or otherwise".

As per US Law "Any institution offering deposits subject to withdrawal on demand & making loans of a commercial or business nature is a bank".

Definitions given above are applicable to all types of financial intermediaries. IN fact, banks nowadays do a large number of financial while transaction financial institution are authorize to- do limited transaction only. Here, a Bank can be defined as a financial department store which renders a host of financial services besides taking deposits and giving loans.

1.1.2 Commercial Bank in Nepal

The growth of banking in Nepal is not so long in comparison with other developed or developing country. Nepal had to wait for a long time to come to the present banking system. The development of any country can't be imagined without economic activities. The development of the banking system is one of the grounds of economic development. So we should take a bank as strong means for the economic development. The development of a bank is interwoven with the development of a person, a society and a nation. It is impossible to fulfill the needs without bank whether it is inside the nation or in foreign country whether it is individual development or business and whether it is the people or the government. So to solve the problems relating to economic development, development of banking system is necessary.

Commercial bank means a bank authorized to receive both demand and time deposits to engage in trust services, to issue letter of credit to rent time deposit boxes and to provide similar services.

According to commercial bank act 2031: "Commercial bank means a bank which operates currency exchange transactions accepts deposits, provides loan, performs dealing, relating to commence except is banks which have been specified for the co-operative, agricultural, industry of similar other specific objectives."

Like other countries goldsmith, merchants and moneylenders were the ancient bankers of Nepal. Tejarath Adda established during the tenure of the prime minister Randodipp Singh (B.S. 1933) was the first step towards the institutional development of banking in Nepal. Tejarath Adda did not collect deposits from the public but gave loans to employees and public against the bullion.

Banking in modern sense stated with the inception of Nepal bank limited (NBL) on B.S. 1994-07-30. NBL had a Herculean responsibility of attracting people toward banking sector from predominant money-lenders net and of expanding banking services. Being a commercial bank, it was natural that NBL paid more attention to profit generating business and preferred opening branch at urban centers.

Government however had onus of stretching banking services to the nook and corner of the country and also managing financial system in a proper way. Thus Nepal Rastra Bank (NRB) was set up on B.S. 2013 –01 –14 as a central bank under Nepal Rastra Bank Act 2012 B.S. Since then it has been functioning as the government's bank and has contributed to the growth of financial sector.

Integrated and speedy development of the country is possible only when competitive banking service reaches nook and corner of the country. Keeping this in mind, government set up Rastriya Banijiya Bank (RBB) in B.S 2022-10-10 as fully government owned commercial bank.

The commercial bank had to carry out the functions of all the type of financial institution such as to improve people's economic welfare and facility to provide loan to offer banking services to the people and the country. Hence, industrial development center (IDC) was set up in 2013 for industrial development in 2016. IDC was

converted to Nepal Industrial development Corporation (NIDC). Similarly, agricultural development Bank (ADB) was established in B.S. 2024-10-07 to provide finance for agricultural products so that agricultural productivity could be enhance by introducing modern agricultural techniques. Moreover, security exchange center was established in 1976 to enhance capital markets activities. Securities exchange center was renamed Nepal stock exchange (NEPSE) in 1933.

With establishment of RBB and ADB, banking services spread to both urban and rural areas to help the common people to reduce their burden of paying higher rate of interest to moneylenders and absolved them from kowtowing before moneylenders. It is natural expectations of customers keep on increasing. Once they got banking services, they were expecting improvement and efficiency. However, excess political and bureaucratic interference and absence of modern managerial concept in these institutions was hurdle in this regard. Banking services to the satisfaction of customers was a far cry. The inception of Nepal Arab Bank Limited (Renamed as Nabil Bank Limited) in B.S. 2041-03-29 as a first joint venture bank proved to be milestone in the history of banking which gave a new ray of hope to the sluggish financial sectors.

After that number of joint venture commercial banks is established, these are Standard Chartered Bank Ltd, SBI Bank Ltd, Nepal Bangladesh Bank Ltd, Nepal Credit and Commercial Bank Ltd, Nepal Industrial and Commercial Bank Ltd. Machhapuchchre Bank Ltd, Laxmi Bank Ltd, etc. These banks are playing a great role for the economic development of the country directly or indirectly.

These joint venture banks launched its operation with marketing concept i.e. customer is the king in the market they started knocking the doors of the customer breaking then the trend of knocking the door of a bank by a customer.

1.2. General Introduction of Selected Banks

1.2.1 An Introduction of Nabil Bank

Nabil Bank ltd, the first foreign joint venture bank of Nepal, started in 12th July 1984 [29th Ashad 2041]. Dubai Bank Ltd. was the initial joint venture partner with 50% equity investment. The share owned by Dubai Bank ltd. was transferred to Emirates Bank International ltd. Dubai sold its entire 50% equity holding to National

Bank Ltd. Bangladesh. Nabil was incorporated with the objective of extending international standard modern banking services to various sector of the society. Pursuing its objectives, Nabil provides a full range of commercial banking services through its 19 points of representation across the kingdom and over 170 reputed correspondent banks across the globe.

Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Operation of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATM's, credit cards, state-of-art, and world renowned software from Infosis Technologies System, Bangalore, India, Internet Banking system and Tele Banking system.

Present Capital Structure of NABIL

Present Capital Structure of NABIL

Share Capital & Reserves:	Amount in NRs.
Authorized Capital	500,000,000
Issued equity capital	491,654,400
Paid up equity Capital	491,654,400

Source: Annual Report of NABIL Bank Ltd.,

Promoters/Shareholders

Share Holding Pattern [In Percent]

1.	NB (International) Limited	50%
2.	NIDC	10%
3.	Rastriya Bema Sansthan	9.66%
4.	Nepal Stock Exchange	0.34%
5.	General Public	30%
	Total	100%

Source: Annual Report of NABIL Bank Ltd.,

1.2.2 Introduction of Everest Bank Limited (EBL)

Everest Bank Limited was established in 1992 AD, under the company Act. It is also a foreign joint venture bank and the foreign partner was United Bank of India Ltd. and was managed from the very beginning till Nov. 1996.

Everest Bank Limited started its Operation in 1994 with a view and objectives of extending professionalized and efficient banking services to various segments of the society. The bank is providing customer friendly services through a network of 22 branches. This bank was established as a joint venture bank with Punjab National Bank with 20% share holding. The Punjab National Bank is one of the largest nationalized banks in India having 112 years of banking history. Punjab National Bank is a technology driven bank serving over 35 billion customers through a network of over 4500 branches spread all over the country with a total business of around INR 2178.74 billion. Everest Bank has recognized the value of offerings a complete range of services and has pioneered in extending various customer friendly products such as home loan, education loan, EBL flexi loan, EBL property plus (future lease rental), Home equity loan, vehicles loan, Loan against share, loan against life insurance policy and loan for professional.

Everest Bank Limited was the first bank to introduce Any Branch Banking System (ABBS) in Nepal. All the branches of the bank are connected with ABBS which enables the customers to do all their transactions from any branches other than where they have their account. Everest Bank has introduced the Mobile Vehicle Banking System to see the segment deprives of proper banking facilities through Birtamod branch, which is the first of its kind.

Present Capital Structure of EBL

Present Capital structure of Everest Bank Limited

Share Capital & Reserves	Amount in NRs.
Authorized Capital	1,00,00,00,000
Issued Capital	72,98,00,000
Paid up capital	51,80,00,000

Source: Annual Report of Everest Bank Ltd.,

Promoters/Shareholders

Share Holding Pattern [In Percent]

Subscription	% Holding
Promoter share holders	50 %
Punjab National bank	20 %
General public	30 %
Total	100 %

Source: Annual Report of Everest Bank Ltd.,

1.2.3 An Introduction of Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited (earlier known as Nepal Grindlays Bank ltd.) came into existence in 2043(1987) as a joint venture between ANZ Grindlays and Nepal Bank Ltd. After acquiring of the Grindlays operation in the region by standard chartered in July 2001, it has become a subsidiary of Standard Chartered London, which holds 75% of shareholdings in the company with remaining 25% held by the public shareholders.

The bank has successfully completed 20yrs of its operation in Nepal in January 2007. The global network of Standard Chartered Group gives the Bank a unique opportunity to provide truly international banking in Nepal. With 15 points of representation and 16ATMs across the kingdom and with around 350 local staffs, SCBNL is in a position to serve its customers through a large domestic network.

The Bank believes- "A satisfied customer is our most valuable Award". The Bank has been the pioneer in introducing 'customer focused' products and services in the country and aspires to continue to be a leader in introducing new products in delivering superior services. It is the first Bank in Nepal that has implemented the Anti-Money Laundering policy and applied the 'Know Your Customer' procedure on all customer accounts.

Present Capital Structure of SCBNL

Share Capital & Reserves	Amount in NRs.
Authorized Capital	1,000,000,000
Issued equity capital	500,000,000
Paid up equity Capital	413,254,800

Source: Annual Report of SCBNL.,

Promoters/Shareholders

Share Holding Pattern [In Percent]

Standard chartered Gridley's bank Australia	50%
Standard Chartered Gridley's bank UK	25%
General Public	25%
Total	100%

Source: Annual Report of SCBNL.,

1.3 Statement of the Problems

The establishment of joint venture banks, enforcement of priority sector and productive sectors lending policies of Nepal Rastra Bank to financial institutions does not seem to have an appreciative impact.

Nepal being listed among least developed countries, joint venture banks has played a catalytic role in the economic growth. Its investment range is from small-scale cottage industries to large industries. In making investment in loans and government securities one may always wonder which investment is better. The researcher Paul S. Anderson, William Silber, Tim S. Campbell and many others have compared the contribution of loans and advances and the investment on securities on the national income.

It can be therefore hypothesized that bank portfolio variables like loans, investments, cash reserve, deposit and borrowing affects the national income. And also how the government policy affects these variables, such as the effect of an interest on the bank portfolio variables is a great concern. Therefore when monitoring money and credit conditions, the central bank has to keep an eye on the bank portfolio behaviour.

Nepalese joint venture banks have not formulated their investment policies in organized manner. They mainly rely upon the instructions and guidelines of Nepal Rastra Bank. They don't have clear view towards investment policy further more. The implementation of policy is not in an effective way.

Thus the present study will make a modest attempt to analyze investment policy of Everest Bank Ltd. comparing it with NABIL and Standard Chartered Bank Nepal Ltd. The problems specially related with investment functions of these banks, which can be presented briefly as under:

) How joint venture banks are efficient?

) State how the relationship of investment and loans & advances with total deposits and total net profits.

) Whether these commercial banks able to meet obligations or not?

) Is Everest Bank Ltd's fund mobilization and investment policy more effective and efficient than the NABIL Bank and Standard Chartered Bank Nepal Ltd.?

) Is Everest Bank Ltd. Investment strategy successful to utilize its available fund in comparison to the NABIL and Standard Chartered Bank Nepal Ltd.?

) Are they maintaining sufficient liquidity position?

1.4   Objective of the Study

The basic objective of the study is to examine and evaluate the investment policy of Everest Bank Ltd. And compare the same with the NABIL and Standard

Chartered Bank Nepal Ltd. to achieve these prime objectives. The following objectives are also considered in the study.

a. To analyse fund mobilization and investment policy of Everest Bank Ltd. in comparison with NABIL and Standard Chartered Bank Nepal Ltd.

b. To evaluate the liquidity, efficiency, profitability and risk position of the sample bank.

c. To evaluate the growth ratios of loans and advances, total investment with other financial variables.

d. To analyze the trend of deposit utilization towards total investment and loans and advances and its projection for next five years.

e. To provide suggestions and possible guidelines to improve investment of these joint venture banks.

1.5   Significance of the Study

Commercial banks in developing countries like Nepal have the greatest responsibility towards the economic development of the country. "In the present-day world in the developed and developing money economies, the vital process of production and consumption are significantly affected by the aggregate money supply consisting of the currency, demand and time deposit with banks"*(Vaish).* In   modern times, Since credit or bank money or credit rather than changes in the total supply of the high powered money issued by the reserve held by the bank against their deposit liabilities that account for changes in the aggregate money supply. Gone are the old days when commercial banks were regarded as merely purveyors of money. They are today not merely purveyors of money but are also the creators or manufacturers of money in the system. It is the banks that set the tempo of the aggregate economic activity in the system. The main goal of the banks as a commercial organization is to maximize the surplus by the efficient use of its funds and resources. In spite of being a commercial institution, it too has a responsibility (obligation) to provide social service oriented

contribution for the socio-economic enlistment to the country by providing specially considered loans and advancement towards less privileged sectors.

The proper mobilization and utilization of domestic become indispensable for any developing country aspiring for a sustainable economic development and there is no doubt that joint venture banks have a pivotal role in the collection of dispersed small savings of the Nepalese people and transforming them into meaningful capital investment. The success and prosperity of the bank relies heavily up in the successful investment of collected resources to the importer sector of economy. Successful formulation and effective implementation of investment policy is the prime requisite for the successful performance of joint venture banks. Good investment policy has a positive impact on economic development of the country and vice versa. So the investment policy of joint venture banks should be in accordance with the spirit of the economic upliftment of the people.

The scope of this study lies mainly in filling a research gap on the study of investment of policy of joint venture banks of Nepal. This study is basically confined to reviewing the investment policy of joint venture banks in the five years period. This study is expected to provide useful feedback to the policy makers of joint venture and commercial banks of Nepal and also to the government and central bank (NRB) in formulating appropriate plans and policies for the improvement of performance of these banks. This study may also be useful to the person who is interested to do research in banking sector.

1.6   Limitations of the Study

The present study has the following limitations:

a)   This study concentrates only on those factors they are related with investment.

b)   Mostly secondary data have been analyzed. Only a period of five years trend is considered i.e. fiscal year 2059/60 to 2063/64.

c)   The truth of the research is based upon the available data from the bank.

d)   Everest Bank Ltd. with NABIL and Standard Chartered Bank Nepal Ltd. will be taken in order to compare.

e)   Only limited financial tools and technique are used for analysis, so this study may not be sufficient for depth analysis.

1.7   Organization of the Study

The proposed study is organized into five chapters as follows.

a)   Introduction:

This chapter presents of introduction, background of the study, statement of the problems, and objective of the study, significance of the study and limitation of the study.

b)   Review of Literature:

This chapter presents of review of literature where conceptual/ theoretical review of the study, review of related material like previous thesis, browser booklets, journals, articles and report, magazines etc will be done

c)   Research Methodology:

The third chapter presents of research design, nature and source of data, method of data collection and method of analysis under research methodology.

d)   Data Analysis and Presentation

This chapter presents the collected data will be tabulated and analyzed by using various financial tools, mathematical and statistical tools under data presentation and analysis.

e)   Summary, Conclusion and Recommendation,

The fifth chapter presents of the brief summary of whole research report and conclusions. Its also provides some useful suggestion and recommendations to concerned parties.

CHAPTER-II

REVIEW OF LITERATURE

This chapter is basically concerned with review of literature relevant to the topic **"Investment Policy of Nepalese Commercial Banks in Nepal."** Every study is very much based on past knowledge. The previous study cannot be ignored because they provide the foundation to the present study. There must be continuity in research. This continuity in research is ensured by linking the present study with past research studies. This chapter highlights the literature that is available in concerned subject as to my knowledge, research work, and relevant study on this topic, review of journals and articles and review of thesis work performed previously.

2.1   Conceptual Review

2.1.1   Concept of Investment

Generally, investment means the purchase of paper assets i.e. shares, bonds, debentures, convertibles etc by postponing present consumptions for future. "Investment is defined simple to be sacrifice of current consumption for future consumption whose main objectives is to maximization of wealth. Investment decision is affected to different elements i.e. time, return and risk. The sacrifice of consumptions means investor is willingness to earn more money and ready for taking risk, but how much long taking risk and time respectively depended upon the investor's nature. Investment generally involves real assets or financial assets. Real assets are tangible, material things and financial assets involve contract written on pieces of papers such as common stocks, bonds and debentures. Financial assets are bought and sold in organized security market" *(Francis, 1983:1)* investment decisions are taken within the framework provided by the complex of financial institutions and intermediaries, which together comprise the capital market. "Capital market means anybody of individuals, whether incorporated or not, constituted for the purpose of regulating or controlling the business of buying, selling or dealing in securities" *(Bhalla, 1983:21).* It is just the market for capital funds. The word capital used in this

context implies a long-term commitment on the part of lender and long-term need for the funds on the part of the borrower. Both lenders and borrowers coming together in capital market to play effective financial intermediary role in primary and secondary market through the use of various long-term capital market instruments. It has a vital role in promoting efficiency and growth. It intermediates the flow of funds from them who wants to save a part of their income from those who want to invest in productive assets. It is that market, which provides the mechanism for channeling current saving into investment in productive facilities, that is, for allocating the country's capital resources among alternative used. In effect, the capital market provides an economy's link with the future, since current decisions regarding the allocation of capital resources are a major determining factor of tomorrow's output. The crucial role is played by the capital market in shaping the pattern and the growth of real output imparts a social significance to individual investment and portfolio decisions. Till about two decades ago, a large part of household saving was either invested directly in physical assets or put in the bank deposits and government small saving schemes. It is only since the restoration of democracy in 1990, that the equity market has started to play a role in this intermediation process.

"Real investment generally involves some kinds of tangible assets such as land, machinery or factories. Financial investment involves contracts written on pieces of paper such as common stock and bonds. In the primitive economic most investment is of the real variety, where as in a modern economy much investment is of financial variety." *(Sharpe, Alexander and Bailey, Op. cit: P.2)*

Investment and investing is a word of many meaning. There are basically three concept of investment.

1. An economist definition of investment, economic investment typically includes net addition of capital stock of society for example building equipment and inventory.

2. Investment in more general or extended term is used by the man on the street which usually refers to money commitment of some short.

3.   Financial investment, which means the exchange of some financial claim-stock and bonds real estate mortgage etc.

Investment choice or decision is found to be the outcome of three different but related classes of factors. The first may be described as factual or information premise. The factual premise of investment decision is provided by different sources of data, which provide an insight of the environmental condition and particular feature of the organization. The second class of factor entering in the investment decision may be described as expectation premise. Expectation relation to the outcomes or alternative investment is subjective and hypothetical in any case, but their foundation is necessarily provided by the environmental and financial fact available to investor. The third and final class of factor may be described as valuation premises. This comprises the structure of subjective preference for the size and regularity of the income received.

2.1.2 Investment Process

Investment process describes how an investor makes decision about what securities to invest in, how extensive these investment should be and when they should be made. Following steps are procedure for making these decisions from the basis of the investment process:

1.   Set investment policy.

2.   Perform security analysis.

3.   Construct a portfolio.

4.   Revise a portfolio.

5.   Evaluate the performance of portfolio.

2.1.3 Investment Policy

Simply, the investment is defined as spending or setting aside money for future financial gain. For an individual, investment might include purchase of financial assets like stocks, bonds, mutual funds or life insurance. Investment can also include the purchase or real assets like building, machinery, land etc. Simply, for an economist, investment refers to increase in factories and machinery or its human capital-that is a skilled educated labor forces.

"Investment policy fixes responsibilities for the investment disposition of the bank assets in term if allocation funds for investment and loan and establishing responsibility for day to day management of those assets" *(Basely 1987:124)*

"In investment decision expenditure and benefit should be measured in cash. In investment analyses, cash flow is more important than accounting profit. It may also be pointed out that the investment decision affects the firm value. The firms' value will increase if investments are profitable and add to the shareholders wealth. Thus, investment should be evaluated on the basic of criteria, which is compatible with the objectives of shareholder's wealth, if it yields in excess of the minimum benefit as per the opportunity cost of capital" *(Pandey; 1999:407)*

2.1.4 Features of a Sound Lending and Investment Policy

The income and profit of the bank depends upon its lending procedure, lending policy and investment of its fund in different securities. The greater the credit created by the bank the higher will be the profitability. A sound lending and investment policy is not only prerequisite for banks profitability, but also crucially significant for the promotion of commercial savings of a backward country like Nepal.

Some necessities for sound lending and investment policies, which most of the banks must consider, have given by many authors as under.

1) Safety and Security

The bank should never invest its funds in those securities, which are subject to the much depreciation and fluctuations because a little difference may cause a great loss. It must not invest in funds into speculative businessman who may be bankrupt at once and who may earn millions in a minute also. The bank should accept that type of securities, which are commercial, durable, marketable and high market prices. In the cases "MAST" should be applied for the investment.

Where,

M= Marketability

A= Ascertain ability

S= Stability

T= Transferability

2)   Profitability

A commercial bank can maximize its volume of wealth through maximization of return on their investments and lending. So, they invest their funds where they gain maximum profit. The profit of commercial bank depends on interest rate, volume of loan, its time period and nature of investment in different securities.

3)   Liquidity

People deposit money at the bank in different account with confidence that the bank will repay their money when they need. To maintain such confidence of the depositors, the bank must keep this point in mind while investing as excess funds in different securities or at the same time of lending. So, that it can meet current or short term obligations when they become due for payment.

4)   Purpose of Loan

Why is a customer in need of loan? This is very important question for any banker. If borrower misuses the loan granted by the bank, they can never repay and bank will possess heavy bad debts. Detailed information about the scheme of the project or activities would be examined before lending.

5)   Diversification

The bank should be always careful no to grant loan 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 securities of a company deprived, there may be appreciation in the securities of other companies. In this way, the loss can be recovered.

6)   Tangibility

Though it may be considered that tangible property doesn't yield an income apart from intangible securities which have lost their value due to price level inflation. A commercial bank should prefer tangible security to intangible one.

7)   Legality

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

8)   Suitability

Bank should always know that why a customers needs loan because if the borrower misuse the loan granted by the bank, he will never be able to repay loan. In order to avoid such circumstances advances should be allowed to select the suitable borrowers and it should demand all the essential detailed information about the

scheme of the project in which the bank is lending for. Bank must keep in mind the overall development plans of the nation and the credit policy of the concerned authority i.e. Central Bank.

2.2   Scenario of Commercial Bank

2.2.1 Concept of Commercial Banks

Banks are that kind of institutions, which deals with money and substitutions for money. They deal with credit and credit instrument. Effective circulation of credit is more significant for the banks. Unsteady and unevenly flow of credit harms the economic situation of the nation. Because of this, collected fund should be invested and mobilized into the right sector. An investment of fund decides the life and death of the banks.

Nepal Bank Ltd. is the first modern bank of Nepal. It is taken as the milestone of modern banking of Nepal. This was established in 1994 B.S. Nepal Rastra Bank act 2012 formulated in 2012 B.S. for the view to establish the leading bank to create banking environment with in the country. As a result Nepal Rastra Bank established in 2013 B.S. as the centre bank of Nepal. Industrial development bank was established in 2016 B.S to promote the industrialization in Nepal, which was later converted into Nepal Industrial Development Corporation (NIDC). Rastriya Banijjya Bank was established in 2022 B.S. as the second commercial bank of Nepal. The financial shapes of these two commercial banks have a tremendous important on the economy. That is the reason why these banks still exits in spite of they are in traditional situation. As the agriculture is the major occupation of Nepalese people, the development of this sector play the prime role in the economy. So, separate Agriculture Development bank was established in 2024 B.S.

For more than two decades, no more banks have been established in the country. After declaring free economy and privatization policy, Government of Nepal encouraged the foreign banks for joint venture in Nepal; as a result, NABIL was established in 2041 B.S. This is the first modern bank with latest banking technology. Then after so many banks emerge in Nepal, as a result at present one central bank, 22

commercial banks, 3 development banks from government side and other development banks from private sides are conducting their services to the Nepalese people.

A bank is a business organization that receives and holds deposits of funds from others make loan or extents credits and transfer funds by written order of deposits. (*The Encyclopedia America; 1984:302*)

Commercial bank is a financial institution which transfers monetary sources to users. In the process of such intermediation, commercial bank deploys funds raised from different sources into different assets with a prime objective of profit generation an administrative assistance.

"The commercial bank has its own role and contribution in the economic development. It is a resource for the economic development; it maintains economic confidence of various segments and extends credit to people.*" (Grywinski, Ronald, 1991:87*)

These banks are established to improve people's economic welfare and facility, to provide loan to the agriculture, industry and commerce and to offer banking services to the people and the country. It provides internal resources for developing countries economy. It collects diversified capital from different parts of country through its own branches.

"Commercial bank is a corporation which accepts demand deposits subject to check and makes short-term loans to business enterprises, regardless of the scope of its other services. *(American Institute of Banking, 1972 :345)*

Hence, we can conclude from the above that the commercial banks are established under the rules and legislation of the central bank of the country. It has to move as per the directives given by the central banks. Though banks are established for the mobilization of the saved fund, central bank makes certain rules so that the public or the customer of the bank may not under go on loss of their hardly collected money by the disinvestment procedure of the bank.

2.2.2 Activities of Commercial Banks.

Commercial Banks are that financial institutions which deals in accepting deposits of persons and institutions and in giving loans against securities. They provide working capital, which needs of trade, industry and even to agricultural sectors. Moreover, Commercial Banks also provide technical and administrative assistance to industries, trade and business enterprises. The main purpose of priority sector investment scheme is to uplift the backward sectors of economy.

Commercial banks are the major component in the financial system. They work as the intermediary between depositors and lenders and facilitate in overall development of the economy with major thrust in industrial development.

Commercial bank came into existence mainly with the objectives of collecting the idle funds, mobilizing them into productive sector and causing and overall economic development. The bankers have the responsibility of safeguarding the interest of the depositors, the shareholders and the society they are serving. A sound banking system is important because of the key roles it plays in the economy, intermediation maturity transformation, facilitating payments, flows, credit allocation and maintaining financial discipline among borrowers.

The main activities of commercial bank are as follows:

i) Accepting various types of deposits from people, institution or company.

ii) Providing loan to various productive sectors to earn a lot of profit from it.

ii) Acting as agency functions.

iv) Providing general utility functions.

v) Providing overseas trending services.

vi) Providing information and other services.

2.3 Review of Related Studies

2.3.1 Review of Articles

In this section, effort has been made to examine and review of some related articles in different economic journal, Word Bank discussion papers, magazines and other related books.

Shrestha Ramesh Lal: (2045 B.S) in his article, *"A study on deposits and credits of commercial in Nepal"* concluded that the credit deposits ration Would be 51.30 percent, other things remaining the same, in 2004 AD, which was the lowest under the period of review. So he had strongly recommended bank should try to give more credit entering new field as far as possible. Other wise, they might not be able to absorb even its expenses.

F. Moursis: (1990) in this article, *"Latin America's Banking System in the 1990's"* on reserve requirements, credit allocation and interest. While analyzing loan portfolio quality, operating efficiency and soundness of bank investment has largely been overlooked. The huge losses now found in the bank's portfolio in many developing countries are testimony to the poor quality of this oversight investment function. He further adds that mismanagement in financial institutions has involved inadequate and overoptimistic loan appraisal, tax loan recovery, high risk diversification of handing and investments, high risk concentration, connected and insider lending, loan mismatching. This has led many banks of developing countries to the failure in 1990's.

Pradhan Kiran (1991) in this article *"Nepal ma Banijya Bank Upalabdhi tatha Chunanti"* concluded some major issue in local banks in comparison to recently established joint ventures banks. The study deals with whole banking system of Nepal in respect to their performance and profitability. Some of his findings relevant to this study are given as:

The deposit collection rate of local banks is very poor in comparison JVBs. The patterns of deposit are also different between these banks. The ratio of current deposits in local banks is 9.34% only, where the same as the joint venture banks is 52.5%. But the fixed deposit ratio is very high in local banks.

Ghimire Prabhakar (1999) has mentioned in his article *"Banijya Bank Haru Prathamikta chhetrama Lagani Garna Bhanda Harja Tirna Tayar."* Most of the banks of Nepal are ready to pay the penalty in spite of investing on rural sector, poverty stricken and deprived areas. In the directives of NRB it is clearly mentioned and directed that all the banks should invest 12% of its total investments to the priority sectors. Out of this 12%, they should invested 3% to the lower level class of countrymen. However, these banks are unable to meet the requirement of NRB.

In the light of above foreign joint venture banks use to justify that they don't have any network among these areas. So if investment will be made in these areas, operational cost will be very high, which exceeds the penalty. If investment won't be made. That is why they are interested in paying penalty than investing in priority sector.

Sharma Bhaskar (2002) has found the same results that the all commercial banks are establishing and operating in urban areas, in his study, *"Banking the future on competition"* the achievements are as follows:-

Commercial banks are establishing and providing their services in urban areas only. They do not have interest to establish in rural areas. Only the branch of Nepal Bank Ltd and Rastriya Banijya Bank Ltd are running in those areas.

- Commercial banks are charging higher interest rate on lending.

- They have maximum tax concession.

- They do not properly analyze the credit system.

According to him, "Due to the lack of investment avenues, banks are tempted to invest without proper credit appraisal and on personal guarantee, whose negative side effect would show colors only after four or five years." He has further included that private commercial banks have mushroomed only in urban areas where large volume of banking transaction and banking activities are possible.

Dhakal Rup Narayan (2005) published his article in the Himalayan Times, *"on Banks go slow on offering loans."* In his article he has explained about the loans distribution from saving in Pokhara which is only of their Savings. He has explained that commercial banks and finance institutions are issuing only half of their saving as

loans in Pokhara. According to NRB, Pokhara, these institutions had a deposit of Rs.12 million and Rs.148.1 million at the end of last fiscal year but they had invested only Rs.6 million and Rs.611.826 million. The ongoing conflict and instability are being accused as behind this imbalance as businessmen and financial bodies don't have any guarantee of good return.

2.3.2 Review of Research Paper and Previous Thesis

Shrestha Dr. Sunity (1993) has conducted in her research study on *"Investment Planning of Commercial Bank in Nepal"*

The research findings of the study are summarized as :

- The general trend of commercial banks assets holdings ids growing. Deposits has been a major of fund. The excess reserve level of the banks allows ideal money and loss of opportunity. Debt equality ratios are high, greater than 100%.

- The return ratios are on the average higher for foreign JVBS that for Nepalese bank but return are on the statistically some. Risk taking attitude is higher in foreign JBVS. The total management achievement index is higher in case of for foreign banks in comparison the Nepalese bank.

- The hypothesis that the commercial banks have nonprofessional style of decision making in investment has been acted. The investment of commercial banks in shares and securities are normal and not found to have strategic decision towards investment in shares and securities. Yield from the securities has been found to be satisfactory.

- Investment in various economic sectors shows industrial and commercial sector taking higher share of loan till 1990.

- Investment in various sectors has a positive impact on the national from their respective sectors.

- Lending in priority sector showed cottage and small industry sector sharing higher loans.

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The major findings of her study were as follows:

All the selected firms have not successfully been mobilization their deposits but the finance companies have mobilize their deposits smoothly in comparison with JVBS .

- The profitability position of all finance companies was betty than of JVBS.

- The liquidity position of JVBS is comparatively better than that of finance companies.

- There is significant relationship between deposit and loan and advances of BOKL. Similarly, there is significant relationship between deposit and total investment, total assets and net profit of Kathmandu finance company.

- The trend value of total deposit, loan and advances, net profit and total investment were in increasing trend.

- The JVBs have less interest risk and capital risk in comparison to finance companies.

Khadka Raja Ram (1998) conducted a study on *"A study on the investment policy of Nabil Bank Ltd. in comparison to other Joint Venture Banks of Nepal."*

The research findings of the study are as follows:

- The liquidity position of Nabil Bank Ltd. is comparatively worse than that of other JVBs. Nabil Bank has more portions of current assets as loan and advances but less portion as investment on government securities.

- Nabil Bank Ltd. is comparatively less successful in one-balance sheet operation as well as off-balance sheet operations than of other JVBs.

- Profitability position of Nabil Bank Ltd. is comparatively not better than that of other JVBs. The mean ratio on loan and advances of Nabil Bank Ltd. has been found slightly lower than that of other JVBs and the return has been found less homogeneous than that of others JVBs. Similarly the mean ratio of total interest earned to total outside assets of Nabil Bank Ltd. has been found slightly lower than that of others JVBs .

- Though Nabil Bank Ltd. seems to be more successful to increase its source of funds as well as mobilization of it by increasing loan and advances and total investment. It seems to be failure to maintain its high growth rate of profit in comparison to that of other JVBs (i.e. Nepal Grindlays Bank Ltd. and Nepal Indosuez Bank Ltd.)

- There is significant relationship between deposit and loan and advances as well as outside assets and net profit but not between deposit and total investment in case of both Nabil Bank Ltd. and other JVBs.

Bohara Indra Bahadur (2002) has conducted thesis research on *"a Comparative study on investment Policy on Joint Venture banks and financial companies of Nepal"*

The major findings are as follows:

) All the selected firms have not successfully been mobilization their deposits but the finance companies have mobilize their deposits smoothly in comparison with JVBs.

) The profitability position of all finance companies was better than that of JVBs.

) The liquidity position of all JVBs is comparatively better than that of finance companies.

) There is significant relationship between deposit and loan and advance of BOKL. Similarly there is significant relationship between deposits and total investments, total assets and net profit of Kathmandu finance company.

) The JVBs have less interest risk and capital risk in comparison to finance companies.

Shrestha (2003) conducted a study on *"Investment analysis of Commercial Bank's* with the research finding were as follows:

- HBL is successful commercial bank of Nepal.

- SBI in developing stage.

- CB should take favorable step for the development of rural parts of the country.

- HBL investment increasing in total investment of CB. Investment heavily on Government but started to invest on other.

- Investment to total deposit of HBL is higher than SBI; Current ratio of HBL is higher than SBI.

- Investment and loan and advance to total deposit ratio is less than SBI of HBL.

- HBL has invested more in income generating assets.

- Profitability ratio of both CBs show both are running on positive profit but HBL has higher.

- Both banks main income generating source is investment and loan and advances.

- HBL has maintained lower liquidity risk. SBI invests more for investment than HBL.

- Growth rate of HBL is positive and SBI has negative.

- Total investment total deposit of HBL and SBI has positive relation.

- Total deposit, investment and income are in increasing trend of both but HBL has higher.

Joshi (2003) conducted a study on *"A comparative study on investment policy of SCBNL and EBL"* with the research findings of the study were:

- Both banks have lower current ratio than one, liquidity position of EBL is better than SCBNL.

- SCBNL has invested more in government securities than EBL.

- EBL is success to mobilize its total deposits as 1 & advances and acquiring high profit in comparison to SCBNL.

- Profitability position of SCBNL is in better position than EBL.

- SCBNL has comparatively low degree of liquidity risk and credit risk than EBL.

- The growth rates of SCBNL are lower than EBL due to total deposit collection of SCBNL. While loan and advances, investment and net profit is higher since the beginning period with compare to EBL.

- Both SCBNL & EBL have significant positive relationship between total deposit and loan and advances, deposit and total investment and outside assets and net profit.

- Both banks have followed the policy of maximizing the investment.

Rana (2004) has conducted thesis research on *"An investment policy of joint venture banks in Nepal"*

The major findings are as follows :

) The mean ratio of investment of government securities to current assets of NB has been found lower than that of the other banks. Whereas, SCBNL has highest mean ratio in comparison with other banks. Likewise, NB's ratios are less homogenous.

) The mean ratio of total investment to total deposit/ ratio of SBI has lowest than other on the other hand SCBNL has the highest mean ratio. Moreover Everest bank ratios are more consistent.

) Investment on government securities to total financial investment ratios of NB has lowest mean ratio and SBNL has highest meant ratio. SBI'S ratios are homogenous and NB has less homogenous.

) The mean ratio of investment on shares/debentures to total investment ratios of SCBNL has quite lowest ratio and NB highest. NB less n/homogenous ratio and NABIL has more homogenous ratio.

) The trend value of all JVBs has an increasing trend. It means if other things remaining same, JVBs will increase their investment in future.

Pandit (2005) conducted a study on *"Investment Policy analysis of Joint Venture Banks with special reference to Nepal SBI bank Ltd, BOK and EBL"* with the findings of the research study were as follows:

❖ Liquidity position of BOK and EBL have not found satisfactory.

❖ Loan and advances of SBI to total deposit ratio is lower at all.

❖ Profitability position of all banks is not satisfactory.

❖ Risk ratio of BOK and EBL has higher.

❖ Growth ratio of SBI total investment and net profit has failure to maintain positive ratios.

❖ There is a significant relationship between deposits and total investment of BOK and EBL. There is no significant relation between deposit and total investment of SBI only.

❖ Profit of SBI and BOK are found poorer than EBL.

Dhital (2006) conducted a study on *"A comparative study on Investment Policy of Standard Chartered Bank Nepal Limited and Bank of Kathmandu Ltd."*

The study found out the results presented in the following concluded manner:

★ Liquidity position of BOK Ltd. Is comparatively better than SCBNL.

★ BOK Ltd. has good deposit collection. SCBNL has ability to invest more amounts on govt. securities. BOK Ltd has moderate investment policy on loan & advances.

★ Assets management ratios of both are satisfactory. SCBNL is less effective in comparison to BOK Ltd.

★ Profitability position of SCBNL is better than BOK Ltd. SCBNL has high profit margin.

★ SCBNL has bare lower degree of liquidity risk and credit risk.

★ SCBNL has not successfully collected and utilized fund among its customers. SCBNL has secured investment policy.

★ Trend value of total deposit, loan advances, total investment and net profit are increasing trend of both banks.

★ There is no significant difference between mean ratio of loan advances to total deposit and investment to total deposit.

Joshi (2007) has conducted thesis research on *"An investment policy of commercial Banks in Nepal."*

The Major findings were as follows :

◆ It shows that the liquidity position of EBL comparatively better than NABIL and BOK. It has the highest cash and bank balance to total deposit, cash and bank balance to current asset ratio.

◆ EBL is comparatively average successful in its on balance sheet operation in compared to NABIL and BOK.

◆ EBL is average profitable in comparison to other compares bank that is NABIL and BOK the bank maintains its high profit margin for the well being in future.

◆ EBL has moderate risk in between NABIL and BOK regarding various aspects of banking function.

◆ EBL has maintained high growth ratio on the total deposits loan and advances a net profit but it has positions in investment. It shows that the bank is successful in increasing its source of funds and mobilization.

◆ There is significant relationship between deposits and loan and advances: deposit and total investment and outside assets and net profit of EBL.

◆ The trend analysis of deposit, loan and advances, total investment and net profit of JVBs is increasing trend.

Choudhary (2008) conducted as study on *"Investment Policy, a comparative study of Nepal Bangladesh Bank Ltd. & Himalayan Bank Ltd."*

The research findings of the study are as follows :

⟩ The liquidity position of NBBL is comparatively better than that of HBL.

⟩ The assets management ratio of NBBL is comparatively better than that of HBL and HBL has the highest proportion of non performing loan and advance than NBBL.

⟩ The profitability ratio of HBL is comparatively better than BBBL due o higher return on loan and advances ratio, return on equity ratio but HBL failed in total interest earned total outside ratio and total interest earned to total working fund ratio in comparison to NBBL.

⟩ The degree of risk is high in NBBL due to highest credit risk and interest rate risk, which shows that NBBL has greater risk in credit recovery and in interest recovery in comparison to HBL.

⟩ The trend of total deposit, total loan and advances, total investment and net profit of HBL is comparatively better than NBBL. But the main important fact is that the trend of Net Profit of NBBL shows a negative trend.

⟩ Both banks are not effectively informative to their clients since the large percentage of the people doesn't know the services provided by the banks.

) The respondents of HBL selected "they are profit oriented only" as the first option whereas respondents of NBBL selected "they don't want to take the risk" as the first choice.

Tamang (2009) in his thesis paper, *"Investment Policy of standard Chartered Bank Ltd"* has concluded as follows: -

♦ The SCBNL has satisfactory liquidity position but not best liquidity position. However the overall ratio shows that the bank is able to meet its short-term obligations.

♦ The activity ratios show that the portion of investment of its fund made by SCBNL in risky assets. The bank is trying to avoid the unnecessary risk associated with loan & advances and share & debentures of others companies and wants to follow secured investment policy by investing more in government securities.

♦ The profit earned by the SCBNL is not satisfactory whereas the bank is maximizing its fund on loan and advances & its share holder's wealth, it can be concluded that the increment in the amount of loan and advances as well as shareholder's wealth is not sufficient as per increment on Net Profit.

♦ From the analysis of growth ratios, it can be concluded that SCBNL has maintained the moderate level growth ratio in all ratios. SCBNL has not successfully collected and utilized its fund collected from customer due to see growth rate of total deposit, loan & advances, total investments and Net Profit.

♦ The trend value of total deposit, net profit & advances, total investment and net profit are in increasing trend of the bank. It means, if others things remain same; the SCBNL will increase its deposits, investments, loan & advances and net profit in future.

Poudyal (2011) conducted as study on *"A study on credit (lending) Policies of Joint Venture Commercial bank with reference to Himalayan Bank Limited and Nepal; SBI Bank Limited."*

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The major findings were as follows:

- The liquidity ratio of HBL, which indicates, is more stable and consistent than NSBL, which indicates stable policy of HBL. He concludes that NSBL has not made enough cash and bank balance and it has made negligible amount of investment in governance securities. On the basic of assets management ratio he concluded that NSBL is able to manage its assets to complete in this competitive banking of credit portfolio both bank has made more investment in private sectors than other sector.

- On the basic of analysis of lending efficiency of these two-concerned banks, NSBL has better efficiency ratio than that of HBL. The overall profitability position of HBL is comparatively better than that of NSBL.

2.4   Research Gap

The above review of literature from various books, journals and articles related to the investment policy analysis show that the one of the major problem in Nepalese organizations behind unhealthy and unsound situation improper management of working capital. Since the success and failure of any organizations is heavily dependent upon the efficiency management of fund and sources and being a service oriented organization established in Nepal, the efficiency in the management of funds investment of commercial banks should be analyzed. So this study attempts to analyze the investment policy in commercial banks. By taking 5 years data for observation and other available information with the help of methodology as described in the following chapter.

CHAPTER-III

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology may be defined as "a systematic process that is adopted by the researcher in studying problem with certain objective and view". In other word, research methodology describes the methods and process applied in the entire aspect of the study focus of data, data gathering instrument and procedure, data tabulating and processing and methods of analysis. It is really a method of critical thinking by defined and redefining the problems, formulating hypothesis or suggested solution and collecting and organizing and evaluating data, making deduction and making conclusions.

In addition, "Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In this study, the various steps are generally adopted by a researcher in studying his/her research problem along with the logic behind them." *(Kothari, 1990: 10)*

The research methodology is the systematic way of solving research problem. Research methodology refers to overall research processes, which a researcher conducts during his /her study. It includes all the procedures from theoretical underpinning to the collection and analysis of data. As most of the data are quantitative, the research is based on the scientific models. It is composed of both parts of technical and logical aspect, on the basis of historical data. Research is systematic and organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering recording, analyzing and interpreting the data with the purpose of finding the answer to the problem. Thus the entire process by which we attempt to solve problem is called research.

Research methodology is a path from which we can solve research dilemma systematically to accomplish the basic objective of the study. It consists of a brief explanation of research design, nature and sources of data, method of data collection and methods of tools used for analyzing data.

3.2   Research Design

A research design refers to the conceptual structure within which the research is conducted. The research design is the arrangement of conditions for collection and analysis of data in a manner that aim to combine relevance of the research purpose with economy in procedure. Research design in the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to objective of this study..

It is the process which gives us an appropriate way to reach research goal. It includes definite procedures and techniques which guide in sufficient way for analyzing and evaluating the study. This study is carried out by using both quantitative and qualitative analysis methods. Mostly, secondary data has been used for analysis, but the discussion and personal interview with the concerned employees of the selected banks are also used for qualitative analysis. Hence, research design of this study is based on descriptive and analytical method.

3.3   Population and Sample

The population refers to the industries of the same nature and its services and product in general. Thus, total of 25 commercial banks operating in Nepal constitute the population of the data and the bank under study constitutes the sample for the study. Among them only three banks are selected as the sample banks to carry out the study. The sample size represents almost 10% of the total population.

a)   NABIL Bank Ltd

b)   Standard Chartered Bank Nepal Ltd.

c)   Everest Bank Ltd.

3.4   Nature and Source of Data

Annual reports of some published and unpublished official records some previous studies in this field, magazines and newspaper official related selected banks employees indifferent levels in and unemployed data for official used, may be the sources of information.

3.5   Method of Data Collection

It indicates the sources of data and how they collected. In this study data are collected through published sources. They were collected from the correspondent offices and their respective websites.

The annual reports of EBL for the period of five years were obtained from the field visit of its Human Resources Department at its head office located at Lazimpat, the annual reports of SCBNL for the period of five years were obtained from the field visit of its head office at New Baneshwor and the annual reports of NABIL for the period of five years were obtained from the field visit of its head office at Kamaladi. NRB publications have been collected by the personal visit of concerned Departments of NRB at Baluwatar. The data regarding the profile of NABIL, SCBL and EBL and other related documents were collected from internet websites. Unpublished master's thesis, books, research papers, articles, journals have been collected mainly form Centre Library of Tribhuvan University, library of Shanker Dev Campus and NRB Magazines and newspapers were from concerned authorities.

After collecting data, as necessarily required, they were separated and analyzed presentation and analysis of the collected data is the main theme of the research work. Collected raw data were first presented in systematic manner in tabular forms and then analyzed by applying different financial and statistical tools to achieve the research objectives. Besides these, some graph, charts and tables have been presented to analyze and interpret the finding of the study. Hypothesis is also made and tested. Segregation is also applied for total investment of the bank.

3.6   Method of Data Analysis

Various financial and statistical tools will be used to complete the research study such as ratio analysis, standard deviation, coefficient of variance, coefficient of correlation, t-statistics etc. For presentation purpose, different types of tables, charts, figures and graphs are used as per necessary.

3.6.1 Financial Tools:

Financial analysis is the process of identifying the financial strengths and weaknesses of the organization by properly establishing relationships between the items of the balance sheet and the profit and loss account.

Ratio analysis is a powerful tool of financial analysis. A ration is designed as "the indicated quotient of two mathematical expressions" and as "the relationship between two or more things". In financial analysis, ratio is used as a benchmark for evaluating the financial position and performance of a firm.

Several ratios, calculated from the accounting data, can be grouped into various classes according to the financial activity and function to be evaluated.

3.6.1.1 Liquidity Ratios

Liquidity ratios are used to judge the ability of banks to meet its short term liabilities those are likely to mature in the short period. With the help of liquidity ratios much insight can be obtained into present cash solvency of the banks and its ability to remain solvent in the event of adversities, it is the measurement of speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations.

The following ratios are evaluated under liquidity ratios:

a)   Current Ratio

This ratio indicates the ability of the bank to meet its current obligation. This is the main important tool to measures the liquidity position of the financial institution.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

b)   Cash Reserve Ratio

Cash and bank balance are the most liquid current assets. This ratio measures the percentage of most liquid fund with the bank to take immediate payment to the depositor. It is computed as follows:

$$\text{Cash Reserve Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total deposit}}$$

c)   Cash and Bank Balance to Total Assets Ratio

Cash and bank balances are the most liquid assets held by a bank. This ratio reflects the proportion of cash and bank balance out of total assets. It is calculated by dividing cash and bank balance by total assets.

$$\text{Cash and Bank Balance to Total Assets Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Assets}}$$

d)   Investment on Govt. Securities to Current Assets Ratio

This ratio shows that how much amount has been the part of the total current assets on investment on government securities which is risk free assets. This ratio is calculated by dividing the investment on government securities by current assets which is shown as follows:

$$\text{Investment on Govt. securities to current assets ratio} = \frac{\text{Investment on Govt. Securities}}{\text{Current Assets}}$$

3.6.1.2 Capital Structure Ratios

Capital structure ratio shows the long-term solvency or liquidity position of a firm. It indicates whether the firm is financially sound or solvent as far its long-term obligations are concerned. These ratios measure the firm's ability to pay the interest regularly and to repay the principal on the due date. These ratios are also known as solvency ratios or capital structure ratios.

Long-term solvency of a firm can be measured by the following ratio:

a)   Debt to total asset ratio

This ratio by relating creditorship fund with owner's fund, it reflects the proportions of long-term debt contributed by creditors and owners to finance the total assets of the firm. The debt to total assets ratio is calculated by dividing Long-term debt by total assets.

$$\text{Debt to total asset ratio} \quad = \frac{\text{Long-term debt}}{\text{Total assets}}$$

b)   Debt-equity Ratio

Debt-equity ratio shows the relationship between debts and Shareholders' fund. It is a test of long-term solvency of a firm. It measures the relative claims of creditors and owners against the assets of the firm. The objective of computing this ratio is to judge the effectiveness of the long-term financial policy of the business. This ratio is computed by dividing the long-term debts or total debts by the shareholder's funds.

$$\text{Debt-equity Ratio} \quad = \frac{\text{Long-term debts}}{\text{Shareholders equity}}$$

c)   Debt to Capital employed ratio

Debt to capital employed ratio shows the quantitative relationship between debt and capital employed of a company. This ratio helps to establish a link between funded debt and total long-term funds available in the firm. This ratio is computed by dividing the total debts by the capital employed.

$$\text{Debt to total capital ratio} \quad = \frac{\text{Total debts}}{\text{Capital employed}}$$

d)   Loan and advances to Current Asset ratio

Loans and advances to current assets ratio measure the extent to which the banks are successful in utilizing the outsiders' funds for the profit generating purpose. The following formula is used to determine the loans and advances to current asset ratio.

$$\text{Loan and advances to Current asset ratio} = \frac{\text{Loan and advances}}{\text{Current Asset}}$$

e)   Debt-Share Capital Ratio

Debt-share capital ratio shows the relationship between debts and total share capital. It is a test of long-term solvency of a firm. This ratio is computed by dividing the long-term debts or total debts by the share capital.

$$\text{Debt-Share Capital Ratio} = \frac{\text{Total debts}}{\text{Share Capital}}$$

3.6.1.3 Activity Ratios

For smooth operations, a firm needs to invest in both short-term and long-term assets. Activity ratios describe the relationship between the firm's level of operations and assets needed to sustain the activity. Activity ratios can also be used to forecast a firm's capital requirements. Activity ratios enable the analysis to forecast these requirements and to assess the firm's ability to acquire the assets needed to sustain the forecasted growth. The following ratios can be calculated as the activity ratios.

a)   Fixed Assets Turnover Ratios

The rate of utilization of fixed assets is critical because investments in plant and equipment are both large and of long duration. Therefore, the fixed assets turnover ratio refers to how effectively and efficiently the fixed assets are used. It can be calculated as:

$$\text{Fixed Assets Turnover Ratios} = \frac{\text{Total Income}}{\text{Fixed Assets}}$$

b)   Total Assets Turnover Ratios

The total assets turnover ratio reflects the efficiency of management for investments in each of the individual assets items. It shows the effective utilization of assets in the generation of income. It can be calculated as:

$$\text{Total Assets Turnover Ratios} = \frac{\text{Total Income}}{\text{Total Assets}}$$

c)   Capital Employed Turnover Ratios

This ratio shows the relationship between total income and capital employed. It determines the efficiency in the utilization of total permanent capital in the revenue

generation. Higher the capital employed turnover ratios, the better and efficient utilization of the capital employed. It can be calculated as:

$$\text{Capital Employed Turnover Ratios} = \frac{\text{Total Income}}{\text{Capital Employed}}$$

d)   Investment Turnover Ratio

This ratio shows the relationship between total income and investment. It determines the efficiency in the utilization of total investment in the revenue generation. It can be calculated as:

$$\text{Investment Turnover Ratios} = \frac{\text{Total Income}}{\text{Investment}}$$

e)   Cash & Bank Balance Turnover ratio

This ratio shows the relationship between total income and cash & bank balances. It is the efficiency ratio of the banks in managing and utilizing its cash and bank balances. It can be calculated as:

$$\text{Cash \& Bank Balance Turnover Ratios} = \frac{\text{Total Income}}{\text{Cash \& Bank Balance}}$$

f)   Loan and advances to total deposit ratio

Loans and advances to total deposits ratio measures the extent to which the banks are successful in utilizing the outsiders' funds for the profit generating purpose. It can be calculated as:

$$\text{Loan and advances to total deposit ratio} = \frac{\text{Loan and advances}}{\text{Total deposits}}$$

g)   Investment to Total Deposit Ratio:

This implies the utilization of firm's deposit on investment in government securities and share debentures of other companies. Investment is one of the forms of credit created to earn income. It can be calculated as:

$$\text{Total Investment to total deposit ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

h)   Income to Total Cost

The ratio of Total Income to total cost measures the cost control capacity of selected banks from its incomes. It can be calculated as:

$$\text{Total Income to Total Costs} = \frac{\text{Total Income}}{\text{Total Costs}}$$

3.6.1.4 Profitability Ratios

"A company should earn profit to survive and grow over a long period of time Profits are essential, but it would be wrong to assume that every action initiated by management to company should be aimed at maximizing profits."

Profitability ratios indicate the degree of success in achieving desired profit. Various profitability ratios are calculated to measure the operating efficiency of business enterprises. Through profitability ratio the lenders and investors want to decide whether to invest in a particular business or not.

a)   Return on Loans & Advances

This ratio shows that return on loans and advances during the year. Higher ratio of net income to loans & advance is better. It ratio is calculated as follows:

$$\text{Return on Loans and Advances} = \frac{\text{Net profit after tax}}{\text{Loan and Advance}}$$

b)   Return on Total Weighted Risk Assets

The ratio of return on total weighted risk assets is useful in measuring the profitability of all financial resources invested in the banks risk assets. Generally higher rate of interest is charged on risk assets, so higher the investment on this risk asset higher will be return. The formula for the return of on total weighted risk assets is given in the following manner

$$\text{Return on total weighted risk assets} = \frac{\text{Net profit after tax}}{\text{Total weighted risk assets}}$$

c)   Return on Total Deposit

The ratio of return on Total deposit measures the capacity of bank to generate profit from its investment on total deposit. In other words, return on total deposit is the contribution of total deposit to net profit after tax. So this ratio is the proportion of return from total deposit and it is calculated as follows.

$$\text{Return on total deposit} = \frac{\text{Net profit after tax}}{\text{Total Deposit}}$$

d)   Return on Total Assets

This ratio is measured the rate of return earned by the firm as a whole for all its investors. It is calculated by dividing net profit by total assets. A higher ratio indicates the efficiency of overall financial resources to invest. So that, the higher ratio, the better will be the performance. Return on total assets in computed by using the following formula.

$$\text{Return on Total Assets} = \frac{\text{Net profit after tax}}{\text{Total Assets}}$$

e)   Return on Shareholder's Equity

This ratio is measure of profitability of the firm in respect of the utilization of total shareholders fund. It is calculated by dividing net profit by total shareholder's equity. The shareholder's equity includes paid up capital, general reserves, and retained earnings of surplus & general loan loss provision. It reflects whether the corporation has earned a satisfactory return for its equity-holders of not. So, higher ratio is favorable of the stockholders.

$$\text{Return on Total shareholder} = \frac{\text{Net profit after tax}}{\text{Total shareholder's equity}} \times 100\%$$

f)   Return on Investment

The ratio of return on investment is useful in measuring the profitability of all financial resources invested in the banks. The formula for the return on investment given in the following manner:

$$\text{Return on Investment} = \frac{\text{Net profit}}{\text{Investment}}$$

g)   Return on Capital Employed

This ratio establishes a relationship between the total earnings available to all the investors and permanent capital. It shows how well the firm has used the economic resources received from all the investors to earn profit. This ratio is calculated as:

$$\text{Return on Capital Employed} = \frac{\text{NPAT}}{\text{Capital Employed}}$$

h)   Earning Per Share

Earning per Share measures the profit available to equity shareholders on per share basis. This ratio expresses the earning power of the company in terms of a share held by the equity shareholders. This ratio is computed by dividing the net profits after preference dividend by the number of equity shares outstanding. It is expressed in rupee figure.

$$\text{Earning Per Share (EPS)} = \frac{\text{Net Profit}}{\text{No. of Equity Shares}}$$

3.6.2   Statistical Tools

3.6.2.1   Mean

$$\text{Mean} (\in X) = \frac{X}{n}$$

n   = Number of Year

X   = Sum of X series

3.6.2.2   Standard Deviation

$$\text{Standard Deviation} (\exists) = \sqrt{\frac{\phi d^2}{n} - \frac{\phi d}{n}^2}$$

Where, d = X - ∈X

3.6.2.3   Coefficient of Variance

$$\text{Coefficient of Variance (CV)} = \frac{\exists}{\in X}$$

3.6.2.4 Coefficient of Correlation

Coefficient of Correlation (r) $= \dfrac{d_1.\,d_2}{\sqrt{\phi d_1{}^2.\phi d_2{}^2}}$

Where, $d_1 = X_1 - \in X_1$

$d_2 = X_2 - \in X_3$

Under this topic, Karl Pearson's correlation coefficient is used to measure the degree of relationship between the following variables:

a)   Coefficient of correlation between Net Profit and Total Deposit

b)   Coefficient of correlation between Total investment and Total Deposit

c)   Coefficient of correlation between Loan & Advances and Total Deposit

d)   Coefficient of correlation between Current assets and Current Liabilities

3.6.2.5 Probable Error (P.E)

Probable error is measured for testing the reliability of an observed value of correlation coefficient. It is computed to find the extent to which it is dependable. If correlation coefficient is greater than 6 times P.E the observed value of r is said to be significant, otherwise nothing can be concluded with certainty. But if the calculated (r) is less than the P.E correlation is not at all significant. It is calculated by using following formula:

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

Where,

P.E. = Probable error of correlation coefficient

r   = Correlation coefficient

n   = Number of observations

3.6.2.5 t-statistics

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \bigg/ \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where, $S = \dfrac{\phi d_1^2 + \phi d_2^2}{n_1 + n_2 - 2}$

Where,

$\bar{X}_1$ = Mean of the X_1

$\bar{X}_2$ = Mean of the X_2

n_1 = No. of the year X_1

n_2 = No. of the year X_2

S = Combined standard deviation

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS

The chapter covers presentation of the arguments, documentation, ideas or concepts, Interpretations and findings. This includes a discussion of the issue or part of the problem investigated and the evidence used in its solution. Through tabular and graphic devices and analysis therefore the data are critically analyzed and interpreted in detail.

This chapter is divided into the following part:
1.   Collection and Utilization of fund
2.   Segregation of investment
3.   Financial analysis (Ratio Analysis)
4.   Statistical analysis (Mean S.D, C.V., Coefficient of correlation, Statistical test (t-test))

4.1   Collection and Utilization of Fund

Collection of Fund	Utilization of Fund
Share capital (paid up)	Investments
Loans and borrowings	Loans and advances
Deposits	Fixed assets

Collection of fund of the selected banks is shown in the tabular from as follows:

Table 4.1

Collection of fund of NABIL (in million)

Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Share capital	491.65	491.65	491.65	491.65	491.65
Deposits	12780.1	15838.9	14586.61	19347.4	23342.29
Borrowings	961.46	229.70	17.06	173.20	882.57
Total Collection	14233.21	16560.25	15095	20012.3	24716.51

Source: Annual report of NABIL

Table 4.2
Collection of fund of EBL (in million)

Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Share capital	455	455	455	518	518
Deposits	6694.90	8063.90	10097.70	13802.50	18186.2
Borrowings	83.20	433.30	0	300.00	300.00
Total Collection	7233.1	8952.2	10553	14620.5	19004.2

Source: Annual report of EBL

Table 4.3
Collection of fund of SCBNL (in million)

Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Share capital	339.50	374.64	374.64	374.64	413.25
Deposits	18755.63	21161.44	19335.1	23061.03	24647.02
Borrowings	79.10	78.3	43.8	10.2	1190.9
Total Collection	19174.23	21614.38	19754	23445.9	26251.17

Source: Annual report of SCBNL

From the above table depicts the collection of fund during the study period of year 2065/66 to 2069/70 there is an increasing trend of collection of fund.

Funds collection mainly included paid up capital, deposits and borrowing only. Here in the case of NABIL, paid up capital is constant. Deposit collection is generally increasing while borrowing has reduced or repaid to the lender during the fiscal year 2066/67 and 2067/68 thereafter increased. Whereas for EBL paid up capital is constant till the fiscal year 2067/68 and then increased. Deposit collection is rapidly increased and borrowing is also increasing except fiscal year 2067/68 where it was in decreasing form. Similarly, SCBNL paid up capital is increased in fiscal year 2066/67 and constant till the fiscal year 2068/69 and then again increased. Deposit collection is swiftly increased except fiscal year 2067/68 and borrowing is decreased till the fiscal year 2068/69 but in the fiscal year 2069/70, it is unexpectedly increased. Among the major sources of the funds, deposit has contributed mostly for the banks to create funds, which is a good sign for the bank.

Similarly utilization of the collected fund of the selected banks is shown in the tabular form as follows:

Table 4.4

Utilization of Fund of NABIL (in million)

Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Loan & advances	7808.11	8189.99	10586.17	12922.54	15545.78
Investment	6545.05	5835.95	4267.23	6178.53	8945.31
Fixed Assets	251.91	338.13	361.23	319.09	286.90
Total Utilization	14605.07	14364.07	15215.63	19420.20	24777.99

Source: Annual report of NABIL

Table 4.5

Utilization of Fund of EBL (in million)

Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Loan & advances	4908.50	5884.10	7618.70	9801.30	13664.40
Investment	1654.00	2535.70	2128.90	4201.30	4985.10
Fixed Assets	109.60	118.40	134.10	152.10	170.10
Total Utilization	6672.10	8538.20	9881.70	14154.70	18819.60

Source: Annual report of EBL

Table 4.6

Utilization of Fund of SCBNL (in million)

Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Loan & advances	5695.82	6410.24	8143.21	8935.42	10502.64
Investment	10357.70	11360.33	9702.55	12838.55	13553.23
Fixed Assets	191.71	136.23	71.41	101.30	125.59
Total Utilization	16245.23	17906.80	17917.00	21875.30	24181.46

Source: Annual Report of SCBNL

After collecting fund, banks utilize it in the proper place to earn profit. Here major portions of utilization of fund are only shown which are taken as loan & advances, investment and fixed assets is also considered. Among them, loan & advances including bills purchased and discounted play a major part of the banks in utilizing place. From the above table it can be seen that there is an increasing rate of utilization of fund. In comparison to last years there is increased in utilization of fund. While utilizing fund there is great among invested in loan and advances each year; while investment has also been a major component for the utilization of collected fund. But fixed assets have not contributed significantly.

To clear the view of the collection and utilization of fund of the NABIL, EBL and SCBNL it is also presented in the graphical form which is shown as below:

Figure 4.1

Collection and Utilization of Fund of NABIL

Figure 4.2

Collection and Utilization of Fund of EBL

Figure 4.3

Collection and Utilization of Fund of SCBNL
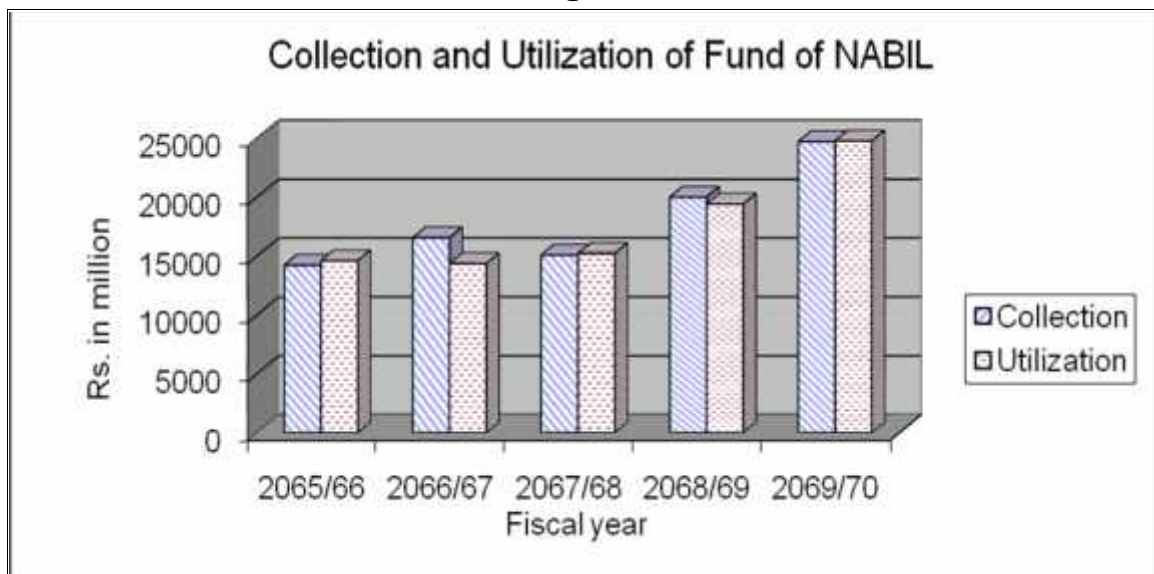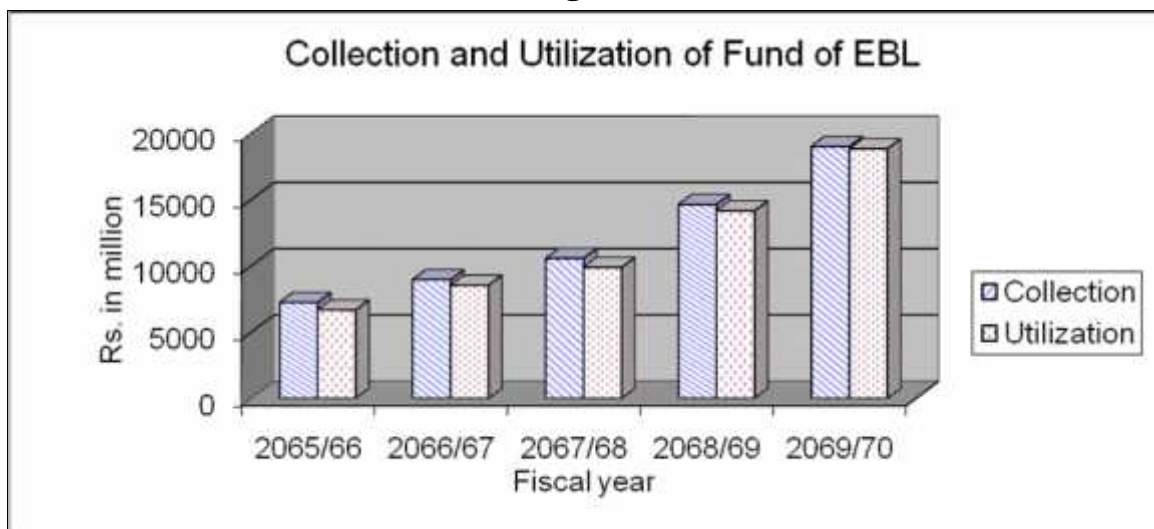
Table 4.7

Utilization Percentage of NABIL (in million)
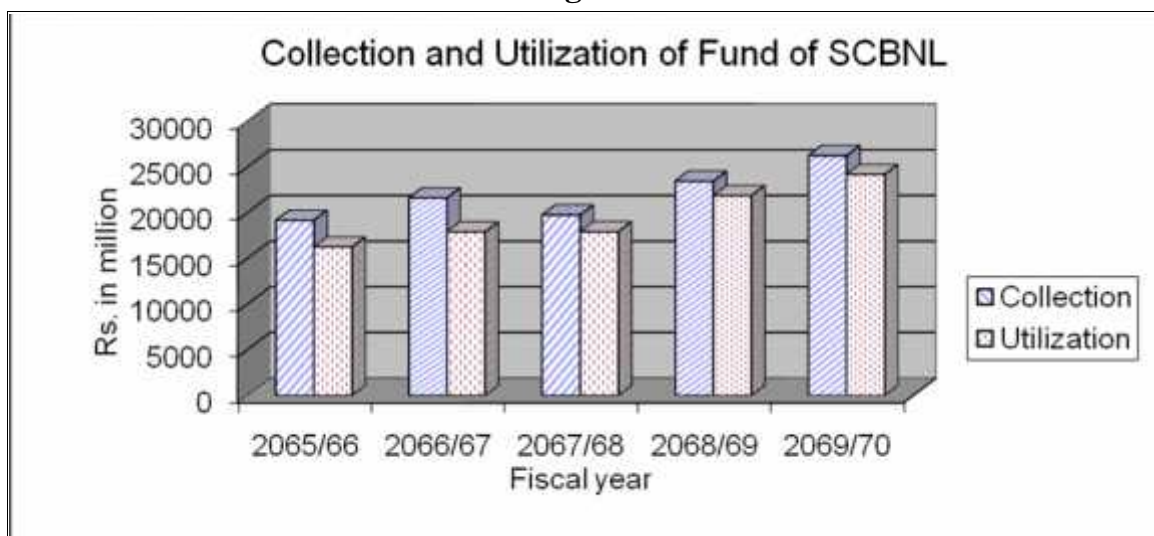
Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Collection	14233.21	16560.25	15095.00	20012.30	24716.51
Utilization	14605.07	14364.07	15215.00	19420.20	24777.99
Utilization (%)	102.61	86.74	100.79	97.04	100.25

Source: Annual report of NABIL

Table 4.8

Utilization Percentage of EBL (in million)

Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Collection	7233.10	8952.20	10553.00	14620.50	19004.20
Utilization	6672.10	8538.20	9881.70	14154.70	18819.60
Utilization (%)	92.24	95.37	93.64	96.81	99.03

Source: Annual report of EBL

Table 4.9

Utilization Percentage of SCBNL (in million)

Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Collection	19174.23	21614.38	19754.00	23445.90	26251.17
Utilization	16245.23	17906.80	17917.00	21875.30	24181.46
Utilization (%)	84.72	82.85	90.70	93.30	92.12

Source: Annual report of SCBNL

From the table 4.7, 4.8 & 4.9 utilized percentage of collected fund of the NABIL, EBL and SCBNL were analyzed and that there is an increasing trend of utilization of collected fund. In the study period, utilization percentage of the selected banks has around 83 to 103 percentage which is used from the collected fund. In NABIL has occupied almost 83 to 103 percentage of collection fund in utilization. In EBL has occupied almost 93 to 99 percentage of collection fund in utilization. In SCBNL has occupied almost 83 to 94 percentage of collection fund in utilization.

To clear the view of the percentage of utilization of collected fund of the selected banks it is also presented in the graphical form which is shown as below:

Figure 4.4
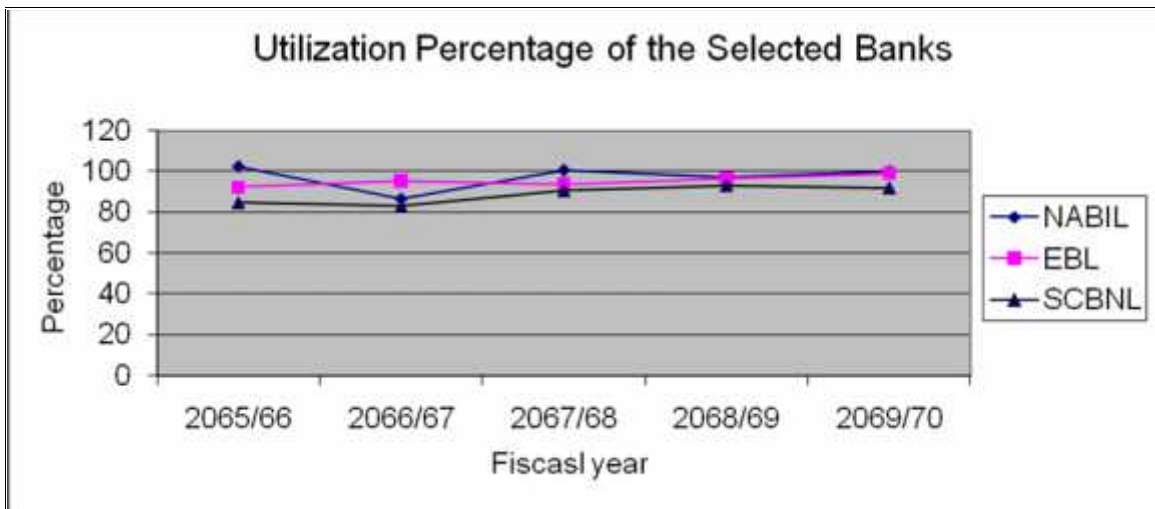
4.2   Segregation of Investment

Banks invest their collected fund in different sectors which represent the financial performance of the bank. Its utilization procedure or investment policy shows the future of the bank. Here in this study NABIL, EBL and SCBNL is taken as a sample bank from the population of five years where the researcher try to find out how much have the bank invested in different sector in the heading behind investment. Bank collects and utilized the fund into risky as well as risk free securities. Investment component is the major component of the utilization of fund of a bank. Here it is shown by the table below:

In the presented Table no. 4.10, 4.11 and 4.12 below, it has shown very clearly that how much is invested in different part of investment opportunities. For NABIL total investments have increased during the fiscal year 2066/67 and 2067/68 thereafter increased than previous year which increased or decreased -10.83%, -26.88%, 44.79% and 44.78% in the fiscal year 2066/67, 2067/68, 2068/69 and 2069/70 respectively. For EBL total investment has been significantly increased during the study periods except the fiscal year 2067/68. It's increased or decreased 53.31%, -16.04%, 97.35% and 18.66% in the fiscal year 2066/67 to 2069/70 respectively. Similarly, SCBNL total investment has been significantly increased during the study periods except the fiscal year 2067/68. It's increased or decreased 9.68%, -14.59%, 32.32% and 5.57% in the fiscal year 2066/67 to 2069/70 respectively.

<div align="center">

Table 4.10

Segregation of Investment of NABIL

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Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Govt. Securities	3588.77	3672.63	2413.94	2301.46	4808.35
Foreign Securities	-	-	-	-	-
NRB bonds (Development)	-	-	-	-	-
Share	513.00	133.45	440.28	170.19	289.95
Others	2442.18	2030.00	1413.44	3706.94	3846.19
Total	6545.05	5835.95	4267.23	6178.53	8945.31
Increased (%)	-	-10.83	-26.88	44.79	44.78

Source: Annual report of NABIL

<div align="center">

Table No. 4.11

Segregation of Investment of EBL

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Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Govt. Securities	1599.30	2466.40	2100.30	3322.40	3614.50
Foreign Securities	-	-	-	-	-
NRB bonds (Development)	-	-	-	-	-
Share	17.11	17.11	19.39	19.89	19.89
Others	37.51	52.12	9.26	858.82	1350.60
Total	1654.00	2535.70	2128.90	4201.30	4985.10
Increased (%)	-	53.31	-16.04	97.35	18.66

Source: Annual report of EBL

<div align="center">

Table No. 4.12

Segregation of Investment of SCBNL

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Particular	Fiscal Year				
	2065/66	2066/67	2067/68	2068/69	2069/70
Govt. Securities	6722.8	7948.22	7203.07	8644.86	7107.94
Foreign Securities	-	-	-	-	-
NRB bonds (Development)	-	-	-	-	-
Share	-	-	13.35	15.34	44.94
Others	3634.90	3412.10	2486.14	4178.34	6400.35
Total	10357.7	11360.33	9702.55	12838.55	13553.23
Increased (%)	-	9.68	-14.59	32.32	5.57

Source: Annual report of SCBNL

Investment in government securities includes treasury bills, national savings certificate and Govt.'s special stocks. For NABIL the investing in government securities has been increasing throughout the study period expect fiscal year 206162 and 2068/69 where slightly decrease comparing to previous fiscal year. Investment in shares is fluctuated during the study period and other investment is decreased in the fiscal year 2066/67 and 2067/68 and then increased. For EBL the investing in government securities has been increasing throughout the study period expect fiscal year 206162 where slightly decrease comparing to previous fiscal year. Investment in shares is almost constant during the study period and other investment is fluctuated. For SCBNL the investing in government securities has been fluctuating during the study period. Investment in shares is increased the last three fiscal years but first two-years no investment in shares and other investment is decreased in the fiscal year 2066/67 and 2067/68 and then increased. In overall scenario the investment is increasing and decreasing.

Segregation of investment of the selected banks is presented in the trend line form which is shown as below:

Figure 4.5
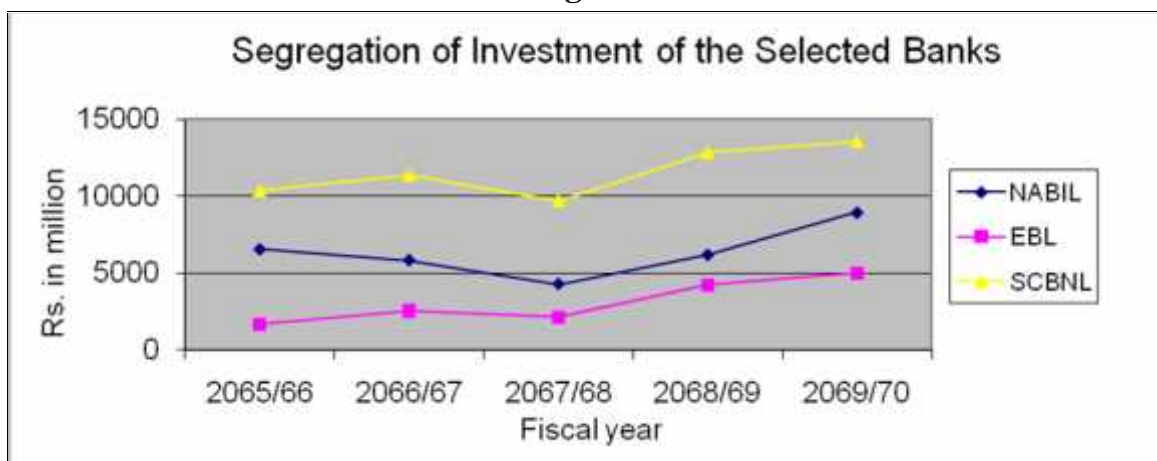
4.3 Ratio Analysis

Ratio is the numerical or and arithmetical relationship between two variables. It is expressed when one variable is divided by another. Ratio analysis is the process of determining and interpreting numerical relationship between variables of financial statements. Ratio is used as an index or yard-stick for evaluating the financial position and performance. It helps analysts to make quantitative judgment about the financial position and performance of the banks.

A ratio is the relationship of one amount to another expressed as the ratio of or as a simple, fraction, integer, decimal fraction or percentage.

It is clear that ratio is a relation of one amount to another amount and is a simple fraction or integer or percentage. Ratio analysis is developed to show the numerical

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relationship between the data presented in the financial statements. It helps to measure profitability, solvency and performance of any business firm. It facilitates the decision makers to take the appropriate decisions basing on the different ratios.

Ratio analysis stands for the process of determining and presenting the relationship of items and groups of items in the financial statements. It is an important technique of financial analysis. It is a way by which financial stability and health of a concern can be judged. The following are the main points to highlight the importance of ratio analysis.

4.3.1 Liquidity Ratio

It is very important for firm to be meeting its obligations as they become due. Liquidity ratio measures the ability of the firm to meet its current obligations. A firm should ensure that it doesn't suffer from the liquidity crunch, and also that it is not too much highly liquid. The failure of a company to meet its obligation, due to lack of very high degree of liquidity is also bad; idle or non-performing assets earn nothing. The firm's funds will be unnecessarily tied up in the current assets. Therefore, it is necessary to strike a proper balance between liquidity and lack of liquidity.

A commercial bank must maintain satisfactory liquidity position to satisfy the credit needs of the community, meet demands for deposits withdrawal, pay maturity obligation in time and convert to cash assets into cash to satisfy immediate needs without loss to the bank and without consequent impact on long run profitability of the bank. To measure the liquidity position of the bank, the following measures of liquidity ratio has been calculated and a brief analysis of the same has been done as below.

4.3.1.1 Current Ratio

Current assets are those assets which can be converted into cash within one accounting period. And the current liabilities are those liabilities, which should be paid within the one accounting period. Current ratio shows the relationship between current assets and current liabilities. It is calculated by dividing current assets by current liabilities. The objective of computing this ratio is to measure the ability of the firm to meet its short-term financial obligations.

Current ratios of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix –)

Table 4.13

Current Ratio (in times)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	1.07	1.05	1.06
2066/67	1.07	1.06	1.06
2067/68	1.08	1.06	1.07
2068/69	1.08	1.03	1.07
2069/70	1.07	1.05	1.08
Mean ($\in X$)	1.074	1.05	1.068
S.D.	0.0049	0.011	0.0092
C.V. (%)	0.456	1.048	0.862

Above table 4.13 depicts the current ratio of the selected commercial banks. The mean ($\in X$) of current ratio of NABIL is 1.074:1, EBL is 1.05:1 as well as that of SCBNL is 1.068:1. This is lesser than the standard current ratio 2:1. The banks are unable to maintain the current ratio in accordance with standard.

The current ratio of the banks are in fluctuating order with lower than the standard ratio. The NABIL and SCBNL has maintained the ratio is not lesser than 1.06 but EBL has not meet that ratio in the overall five fiscal years.

The mean of current ratio of NABIL is the highest i.e. 1.074 than that of SCBNL and EBL. Standard deviation of current ratio of NABIL, EBL and SCBNL are 0.0049, 0.011 and 0.0092 respectively. Coefficient of variation of NABIL is 0.456%, EBL is 1.048% and SCBNL is 0.862%. It seems that current ratio of EBL is less homogenous but other banks are more homogenous. This ratio can be presented in the following graph.

Figure – 4.6
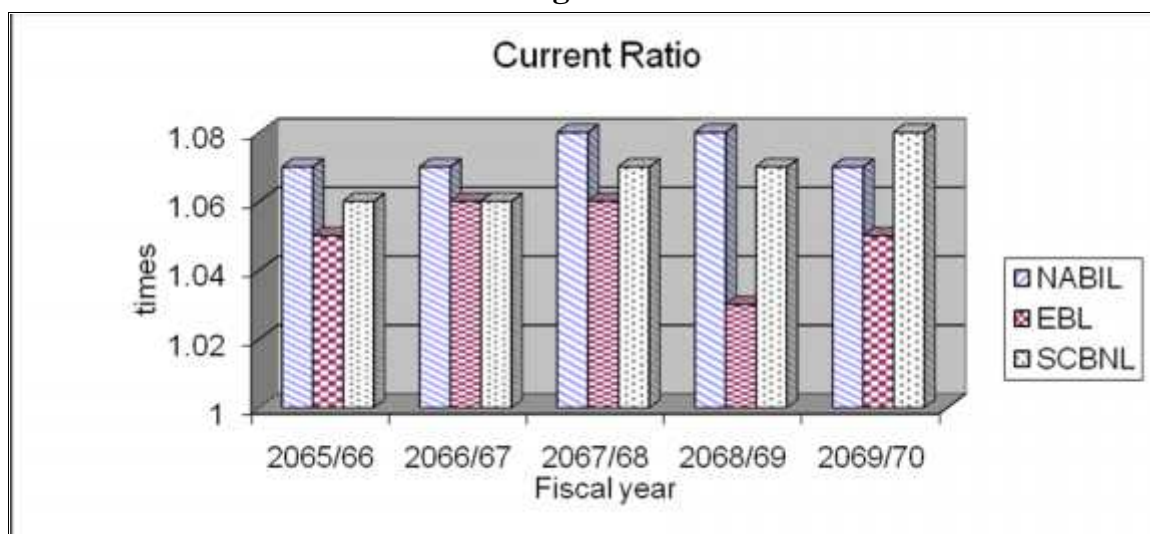
4.3.1.2 Cash Reserve Ratio

Cash and bank balance are the most liquid current assets. The ratio between cash and bank balance to total deposit measure the ability of the bank to meet the unanticipated cash and all types of deposits. This ratio measures the percentage of most liquid fund with the bank to make immediate payment to the depositors. Higher the ratio the greater will be the ability to meet sudden demand of deposit. But very high ratio is not desirable since bank is to pay interest on deposits.

Cash reserve ratios of NABIL, EBL and SCBNL. are presented below in the table (Detail in Appendix -)

Table 4.14
Cash Reserve Ratio (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	8.96	17.02	8.06
2066/67	6.13	7.83	9.56
2067/68	3.83	10.40	5.75
2068/69	3.26	11.25	5.53
2069/70	6.00	13.15	8.20
Mean ($\in X$)	5.636	11.93	7.42
S.D.	2.016	3.066	1.546
C.V. (%)	35.77	25.70	20.84

Above table 4.14 depicts the cash reserve ratio of the selected commercial banks. The mean ($\in X$) of cash reserve ratio of NABIL, EBL and SCBNL are 5.636, 11.93 and 7.42 respectively.

The cash reserve ratio of the banks is fluctuating. The highest cash reserve ratio is 17.02 and lowest cash reserve ratio is 3.26 in the fiscal year 2065/66 and 2068/69 of EBL and NABIL respectively. The highest cash reserve ratio of NABIL is 8.96 and lowest ratio is 3.26 in the fiscal year 2065/66 and 2068/69 respectively. Similarly, the highest cash reserve ratio of EBL is 17.02 and lowest ratio is 7.83 in the fiscal year 2065/66 and 2066/67 respectively as well as SCBNL's highest cash reserve ratio is 9.56 and lowest ratio is 5.53 in the fiscal year 2066/67 and 2068/69 respectively.

The mean of cash reserve ratio of EBL is the highest i.e. 11.93 than that of NABIL and SCBNL. Standard deviation of cash reserve ratio of NABIL, EBL and SCBNL are 2.016, 3.066 and 1.546 respectively. Coefficient of variation of NABIL is 35.77%, EBL is 25.70% and SCBNL is 20.84%.

It shows that SCBNL is maintaining adequate liquidity position regarding cash reserve ratio than other banks. Too low ratios are also not preferable bank should meet its

obligations any time when necessary. This ratio can be presented in the following graph.

Figure – 4.7
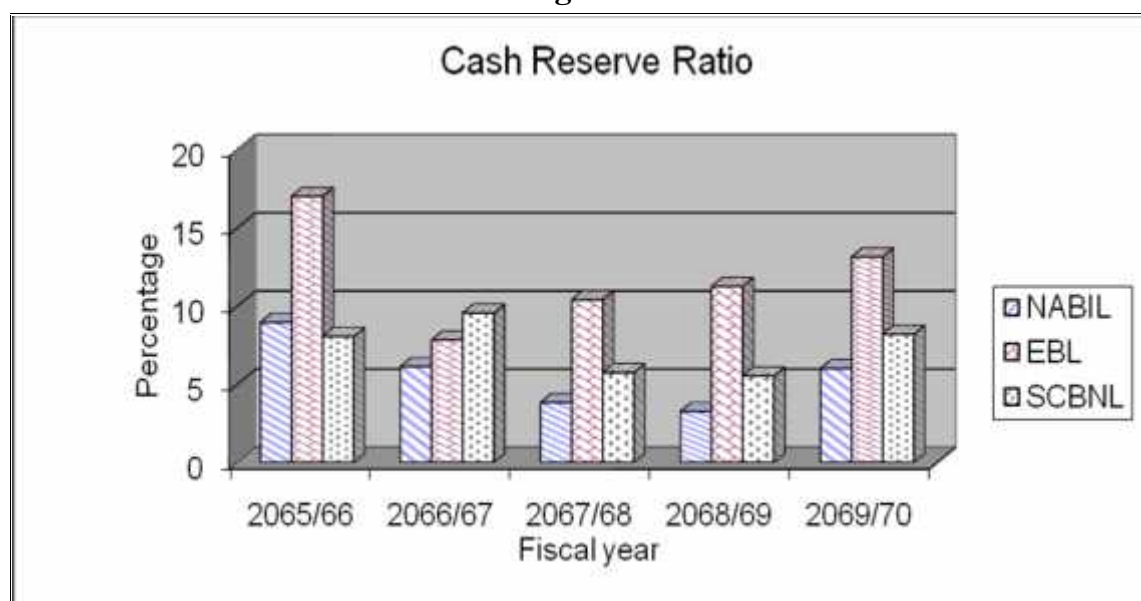
4.3.1.3 Cash and Bank Balance to Total Assets Ratio

This ratios measure the bank's ability to maintain its total assets. It also indicates that whenever required, the bank can invest (purchase) promptly another assets in the future. It is the percentage of total assets maintained as cash and bank balance by the bank.

Cash and Bank Balance to Total Assets Ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.15

Cash and Bank Balance to Total Assets Ratio (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	6.91	14.15	7.23
2066/67	5.80	6.58	8.56
2067/68	3.25	8.95	5.08
2068/69	2.82	9.73	4.95
2069/70	5.14	11.16	7.07
Mean (€X)	4.784	10.114	6.578
S.D.	1.542	2.505	1.378
C.V. (%)	32.23	24.77	20.95

Above table 4.15 depicts the cash and bank balance to total assets ratio of the selected commercial banks. The mean (€X) of cash and bank balance to total assets ratio of NABIL, EBL and SCBNL are 4.784, 10.114 and 6.578 respectively.

The cash and bank balance to total assets ratio of EBL is initially decreased and then increased. NABIL is slowly decreased till the fiscal year 2068/69 and increased but SCBNL is fluctuated during the study period.

The highest cash and bank balance to total assets ratio of NABIL is 6.91 and lowest ratio is 2.82 in the fiscal year 2065/66 and 2068/69 respectively. Similarly, the highest cash and bank balance to total assets ratio of EBL is 14.15 and lowest ratio is 6.58 in the fiscal year 2065/66 and 2066/67 respectively as well as SCBNL's highest cash and bank balance to total assets ratio is 8.56 and lowest ratio is 4.95 in the fiscal year 2066/67 and 2068/69 respectively.

The mean of cash and bank balance to total assets ratio of EBL is the highest i.e. 10.114 than that of NABIL and SCBNL. Standard deviation of cash and bank balance to total assets ratio of NABIL, EBL and SCBNL are 1.542, 2.505 and 1.378 respectively. Coefficient of variation of NABIL is 32.23%, EBL is 24.77% and SCBNL is 20.95%. This ratio can be presented in the following graph.

Figure – 4.8
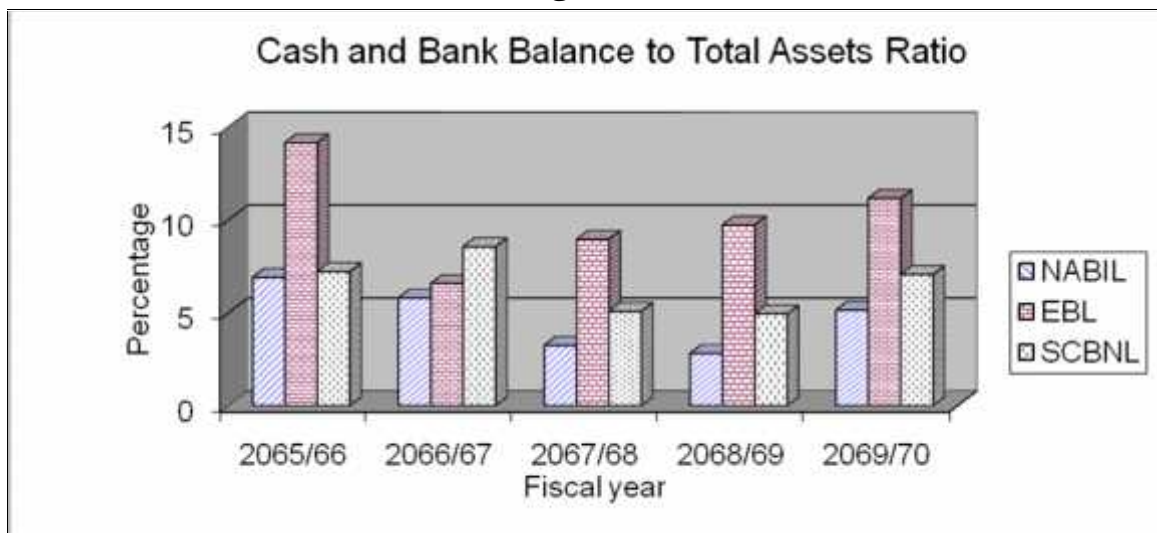
4.3.1.4 Investment on Govt. Securities to Current Assets Ratio

The ratio is very significant to know the capacity to banks to mobilize their current assets on different types of government securities to maximize the profit. All deposits of bank should not invest in loans and advances and other credits from because of the security and liquidity point of view. Therefore, up to some extent commercial banks seem to be interested to utilize their current asset by purchase government securities. This ratio shows that out of current assets, how much percentage of it has been occupied by the investment on government securities.

Investment on Govt. Securities to Current Assets Ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.16

Investment on Govt. Securities to Current Assets Ratio (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	22.00	20.41	32.45
2066/67	22.38	26.18	33.81
2067/68	14.35	18.06	33.01
2068/69	10.46	21.92	33.68
2069/70	17.83	17.23	24.97
Mean ($\in$X)	17.404	20.76	31.584
S.D.	4.552	3.181	3.343
C.V. (%)	26.15	15.32	10.58

Above table 4.16 depicts the investment on govt. securities to current assets ratio of the selected commercial banks. The mean ($\in$X) of investment on govt. securities to current assets ratio of NABIL, EBL and SCBNL are 17.404, 20.76 and 31.584 respectively.

The investment on govt. securities to current assets ratio of the banks is fluctuating The highest investment on govt. securities to current assets ratio of NABIL is 22.38 and lowest ratio is 10.46 in the fiscal year 2066/67 and 2068/69 respectively. Similarly, the highest investment on govt. securities to current assets ratio of EBL is 26.18 and lowest ratio is 17.23 in the fiscal year 2066/67 and 2069/70 respectively as well as SCBNL's highest investment on govt. securities to current assets ratio is 33.81 and lowest ratio is 24.97 in the fiscal year 2066/67 and 2069/70 respectively.

The mean of investment on govt. securities to current assets ratio of SCBNL is the highest i.e. 31.584 than that of NABIL and EBL. Standard deviation of investment on govt. securities to current assets ratio of NABIL, EBL and SCBNL are 4.552, 3.181 and 3.343 respectively. Coefficient of variation of NABIL is 26.15%, EBL is 15.32% and SCBNL is 10.58%. The banks should concentrate on the stabilization and increment of investments on govt. securities income generating sectors from the current assets available. This ratio can be presented in the following graph.

Figure – 4.9

Investment on Govt. Securities to Current Assets Ratio
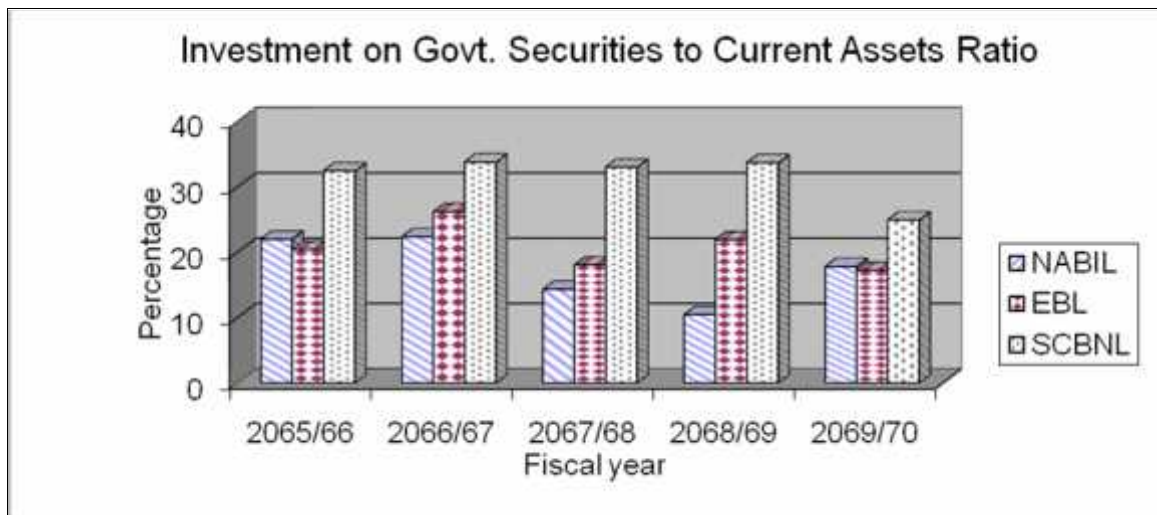
4.3.2 Capital Structure Ratios

These ratios are calculated to judge the long-term financial position of the bank as well as to measure the financial risk and the bank's ability of using debt to shareholder's advantage.

4.3.2.1 Debt to Total Asset Ratio

This ratio shows the proportion of total assets financed by long-term debt. A high ratio indicates a banks success in exploiting debts to be more profitable as well as its riskier capital structure. From creditor's point of view its represents security for them.

Debt to total assets ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix - 5)

Table 4.17
Debt to Total Assets Ratio (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	92.07	92.38	93.45
2066/67	91.15	92.07	93.67
2067/68	90.35	91.49	92.77
2068/69	91.60	92.49	93.19
2069/70	92.45	92.93	92.60
Mean ($\in$X)	91.524	92.272	93.136
S.D.	0.732	0.478	0.402
C.V. (%)	0.80	0.52	0.43

Above table 4.17 depicts the debt to total assets ratio of the selected commercial banks. The mean ($\in$X) of debt to total assets ratio of NABIL, EBL and SCBNL are 91.524, 92.272 and 93.136 respectively.

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The debt to total assets ratio of the banks are fluctuating. The highest debt to total assets ratio of NABIL is 92.45% and lowest ratio is 90.35% in the fiscal year 2069/70 and 2067/68 respectively. Similarly, the highest debt to total assets ratio of EBL is 92.93% and lowest ratio is 91.49% in the fiscal year 2069/70 and 2067/68 respectively as well as SCBNL's highest debt to total assets ratio is 93.67% and lowest ratio is 92.60% in the fiscal year 2066/67 and 2069/70 respectively.

The mean of debt to total assets ratio of SCBNL is the highest i.e. 93.136 than that of NABIL and EBL. Standard deviation of debt to total assets ratio of NABIL, EBL and SCBNL are 0.732, 0.478 and 0.402 respectively. Coefficient of variation of NABIL is 0.80%, EBL is 0.52% and SCBNL is 0.43%. Comparatively, SCBNL is more at riskier position of debt financing than other two banks because of higher average (mean). This ratio can be presented in the following graph.

Figure – 4.10
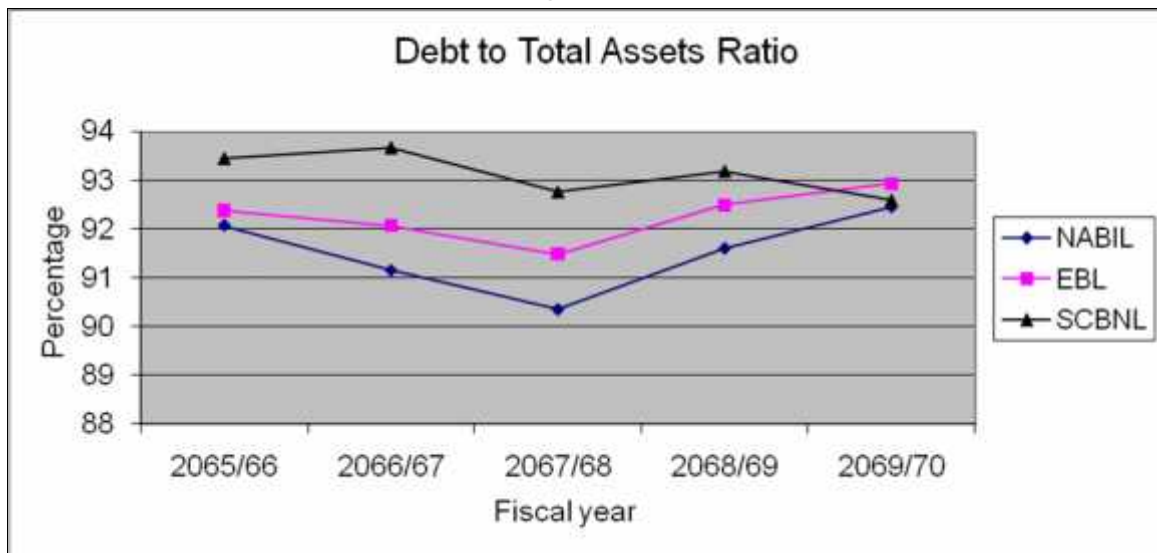
4.3.2.2 Debt to Equity Ratio

This ratio shows the extent to which shareholders are liable to long-term debtor of banks. This ratio shows the proportion of long-term debt to shareholder's equity. Here, long-term debt consists of borrowing from other banks and fixed deposits. Shareholder's equity consists of revenue, share capital, retained earning and other provision.

Debt to equity ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.18
Debt to Equity Ratio (in times)

| Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	11.60	12.12	14.27
2066/67	10.30	11.61	14.81
2067/68	9.37	10.76	12.83
2068/69	10.91	12.32	13.69
2069/70	12.25	13.15	12.51
Mean ($\in$X)	10.89	11.99.	13.62
S.D.	1.002	0.792	0.858
C.V. (%)	9.20	6.61	6.30

Above table 4.18 depicts the debt to equity ratio of the selected commercial banks. The mean ($\in$X) of debt to equity ratio of NABIL, EBL and SCBNL are 10.89, 11.99 and 13.62 respectively.

The debt to equity ratio of the NABIL and EBL are decreased till 2067/68 and than increased but the debt to equity ratio of SCBNL is fluctuating. The highest debt to equity ratio of NABIL is 12.25 and lowest ratio is 9.37 in the fiscal year 2069/70 and 2067/68 respectively. Similarly, the highest debt to equity ratio of EBL is 13.15 and lowest ratio is 10.76 in the fiscal year 2069/70 and 2067/68 respectively as well as SCBNL's highest debt to equity ratio is 14.81 and lowest ratio is 12.51 in the fiscal year 2066/67 and 2069/70 respectively.

The mean of debt to equity ratio of SCBNL is the highest i.e. 13.62 than that of two other banks. Standard deviation of debt to total assets ratio of NABIL, EBL and SCBNL are 1.002, 0.792 and 0.858 respectively. Coefficient of variation of NABIL is 9.20%, EBL is 6.61% and SCBNL is 6.30%. SCBNL is more of risky since its average ratio is higher than other two banks. Claims of creditors are higher than owners, which can prove risky. But NABIL is more in consistent in the ratios with comparatively higher C.V. i.e. 9.20 > 6.61 > 6.30. This ratio can be presented in the following graph.

Figure – 4.11

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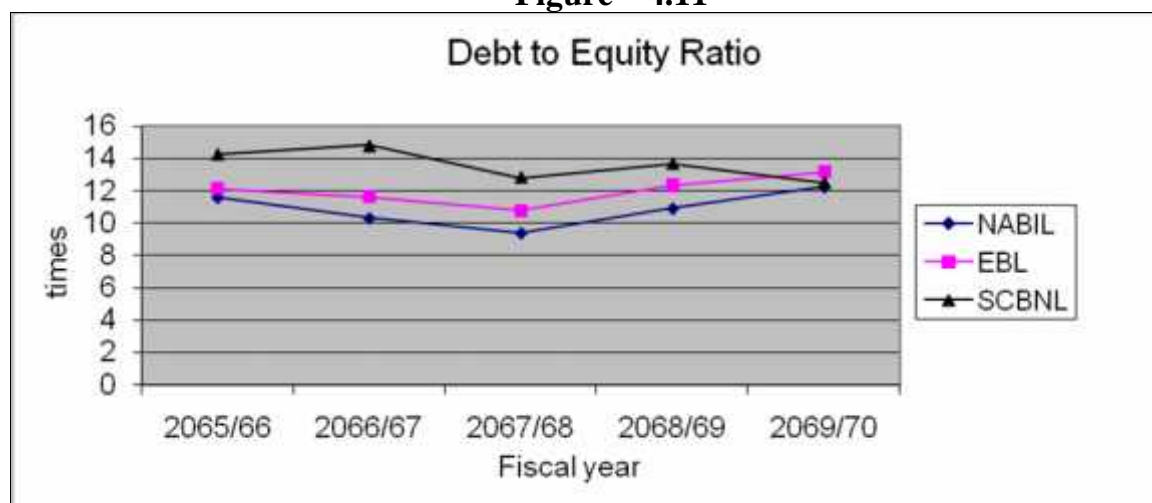
4.3.2.3 Total Debt to Capital Employed Ratio

This ratio relates outside liabilities not merely to the shareholders fund but to the total capitalization of the banks. The ratio of total debts to capital employed ratio is measured of the percentage of funds provided by creditors.

Total debt to capital employed ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.19
Total Debt to Capital Employed Ratio (in times)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	11.60	14.67	14.27
2066/67	10.30	14.47	14.81
2067/68	9.37	14.49	12.83
2068/69	10.91	24.16	13.69
2069/70	12.25	16.30	12.51
Mean ($\in X$)	10.89	16.82	13.62
S.D.	1.002	3.735	0.858
C.V. (%)	9.20	22.21	6.30

Above table 4.19 depicts the total debt to capital employed ratio of the selected commercial banks. The mean ($\in X$) of total debt to capital employed ratio of NABIL, EBL and SCBNL are 10.89, 16.82 and 13.62 respectively.

The debt to equity ratio of the NABIL and EBL are decreased till 2067/68 and than increased but the debt to equity ratio of SCBNL is fluctuating. The highest debt to equity ratio of NABIL is 12.25 and lowest ratio is 9.37 in the fiscal year 2069/70 and 2067/68 respectively. Similarly, the highest debt to equity ratio of EBL is 24.16 and lowest ratio is 14.47 in the fiscal year 2069/70 and 2066/67 respectively as well as SCBNL's highest debt to equity ratio is 14.81 and lowest ratio is 12.51 in the fiscal year 2066/67 and 2069/70 respectively.

The mean of debt to equity ratio of EBL is the highest i.e. 16.82 than that of two other banks. Standard deviation of debt to total assets ratio of NABIL, EBL and SCBNL are 1.002, 3.735 and 0.858 respectively. Coefficient of variation of NABIL is 9.20%, EBL is 22.21% and SCBNL is 6.30%. This ratio can be presented in the following graph.

Figure – 4.12

4.3.2.4 Total Debt to Share Capital Ratio

This ratio measures the extent to which the bank is having debt financing compared to equity financing. It shows the relative claim of creditors and owners, of the bank here; total debt consists of total deposit, all borrowing and other liabilities. Shareholder's equity consists of only share capital.

Total debt to share capital ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

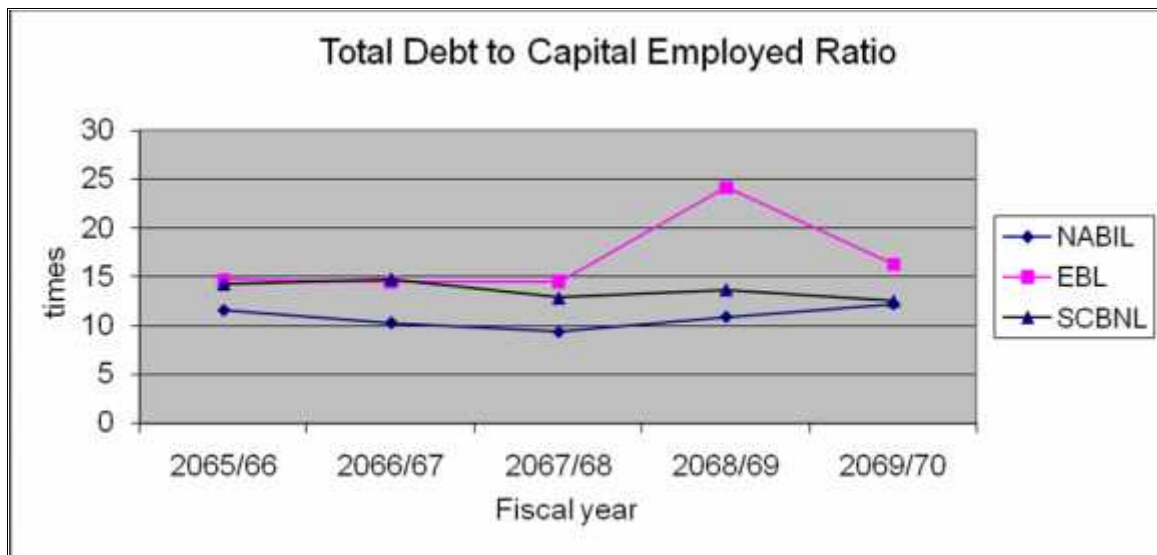**Table 4.20**

Total Debt to Share Capital Ratio (in times)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	31.01	16.35	57.56
2066/67	31.05	19.44	59.11
2067/68	31.58	23.59	54.21
2068/69	41.60	28.50	64.10
2069/70	51.25	38.45	64.08
Mean ($\in X$)	37.30	25.27	59.81
S.D.	8.054	7.753	3.832
C.V. (%)	21.59	30.68	6.41

Above table 4.20 depicts the total debt to share capital ratio of the selected commercial banks. The mean ($\in X$) of total debt to share capital ratio of NABIL, EBL and SCBNL are 37.30, 25.27 and 59.81 respectively.

The total debt to share capital ratio of the NABIL and EBL are increased but the total debt to share capital ratio of SCBNL is fluctuating. The highest total debt to share capital ratio of NABIL is 51.25 and lowest ratio is 31.01 in the fiscal year 2069/70 and

2065/66 respectively. Similarly, the highest total debt to share capital ratio of EBL is 38.45 and lowest ratio is 16.35 in the fiscal year 2069/70 and 2065/66 respectively as well as SCBNL's highest total debt to share capital ratio is 64.10 and lowest ratio is 54.21 in the fiscal year 2067/68 and 2068/69 respectively.

The mean of total debt to share capital ratio of SCBNL is the highest i.e. 59.81 than that of two other banks. Standard deviation of total debt to share capital ratio of NABIL, EBL and SCBNL are 8.054, 7.753 and 3.832 respectively. Coefficient of variation of NABIL is 21.59%, EBL is 30.68% and SCBNL is 6.41%. NABIL is more of risky since its average ratio is higher than other two banks. Claims of creditors are higher than owners, which can prove risky. But EBL is more in consistent in the ratios with comparatively higher C.V. i.e. $30.68 > 21.59 > 6.41$. This ratio can be presented in the following graph.

Figure – 4.13
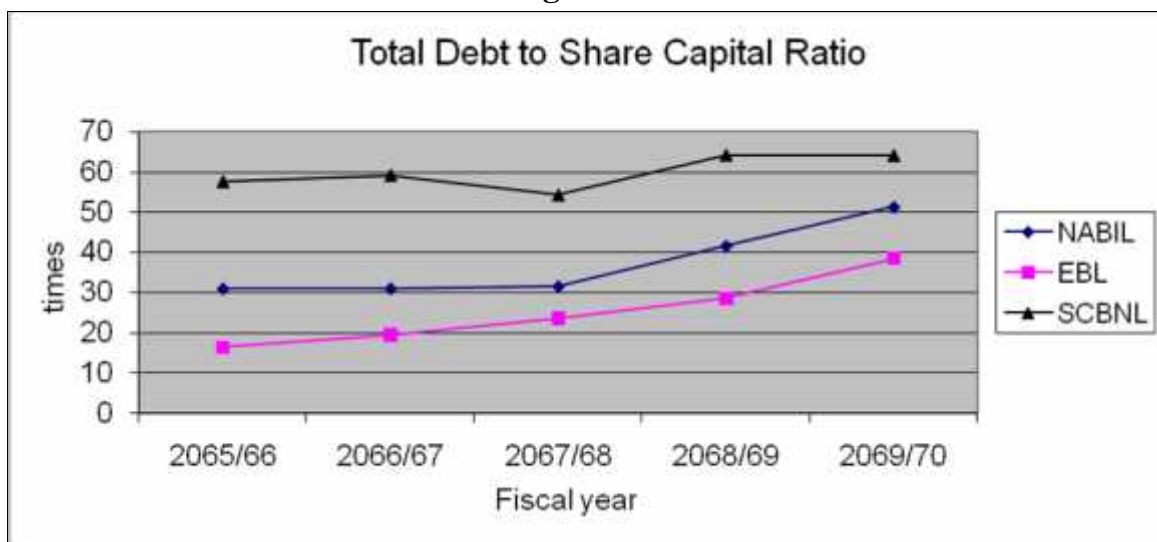
4.3.2.5 Loan and Advances to Current Asset Ratio

Loan and advances are also included in the current assets of commercial banks because generally it provides short-term loans, advances, overdrafts, cash-credit and foreign bill purchased and discounted.

All commercial banks mobilize their collected funds as loan and advances to the customers. The banks must maintain its loan and advances in appropriate level to find out portion of current assets, which is granted as loan and advances.

Loans and advances to current assets ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.21

Loan and Advances to Current Assets Ratio (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	47.87	62.63	27.49
2066/67	49.92	62.46	27.27
2067/68	62.92	65.51	37.32
2068/69	58.71	64.67	34.81
2069/70	57.65	65.12	36.89
Mean ($\in X$)	55.414	64.078	32.756
S.D.	5.644	1.281	4.471
C.V. (%)	10.19	2.00	13.65

Above table 4.21 depicts the loans and advances to current assets ratio of the selected commercial banks. The mean ($\in X$) of loans and advances to current assets ratio of NABIL, EBL and SCBNL are 55.414, 64.078 and 32.756 respectively.

The loans and advances to current assets ratio of the NABIL in increased till the fiscal year 2067/68 thereafter decreased but the loans and advances to current assets ratio of EBL and SCBNL is fluctuated. The highest loans and advances to current assets ratio of NABIL is 62.92 and lowest ratio is 47.87 in the fiscal year 2067/68 and 2065/66 respectively. Correspondingly, the highest loans and advances to current assets ratio of EBL is 65.51 and lowest ratio is 62.46 in the fiscal year 2067/68 and 2066/67 respectively as well as SCBNL's highest loans and advances to current assets ratio is 37.32 and lowest ratio is 27.27 in the fiscal year 2067/68 and 2066/67 respectively.

The mean of loans and advances to current assets ratio of EBL is the highest i.e. 64.078 than that of two other banks. Standard deviation of loans and advances to current assets ratio of NABIL, EBL and SCBNL are 5.644, 1.281 and 4.471 respectively. Coefficient of variation of NABIL is 10.19%, EBL is 2.00% and SCBNL is 13.65%. This ratio can be presented in the following graph.

Figure – 4.14

Loan and Advances to Current Assets Ratio
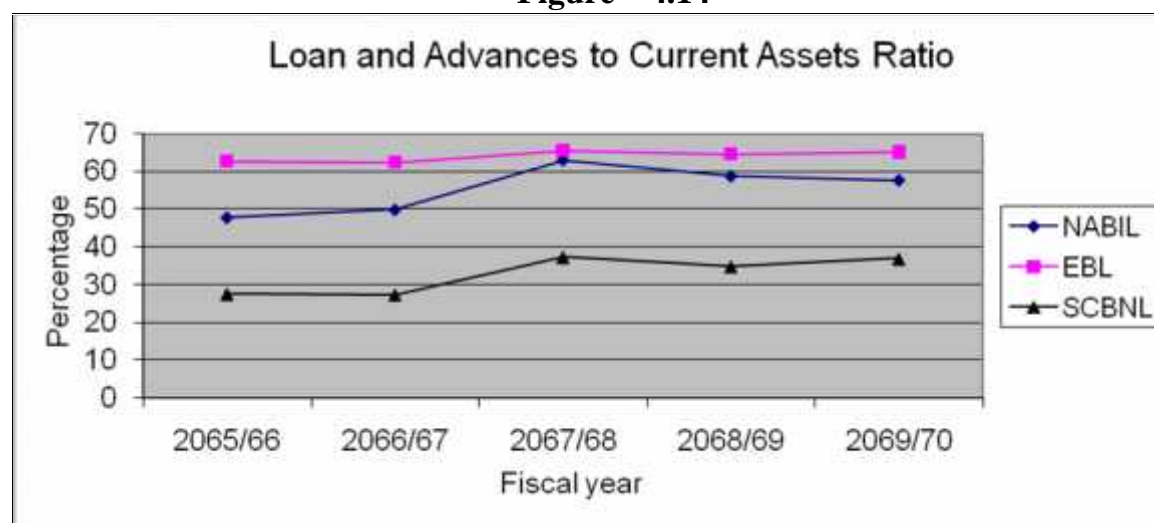
4.3.3 Activity Ratios

Activity ratios are intended to measure the effectiveness to employment of the resources in a business concern.

4.3.3.1 Fixed Assets Turnover Ratio

The rate of utilization of fixed assets is significant because investments in plant and equipment, machinery, furniture are large and of long duration. This ratio measures the extent to which banks are able to invest in fixed assets and how effectively and efficiently the fixed assets are used.

Fixed assets turnover ratio of NABIL, EBL and SCBNL. are presented below in the table (Detail in Appendix -)

Table 4.22

Fixed Assets Turnover Ratio (in times)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	5.67	5.80	7.85
2066/67	4.23	6.63	11.63
2067/68	4.18	6.41	22.07
2068/69	5.38	7.01	17.01
2069/70	7.11	8.06	15.77
Mean ($\in X$)	5.314	6.782	14.866
S.D.	1.079	0.75	4.837
C.V. (%)	20.30	11.06	32.54

Above table 4.22 depicts the fixed assets turnover ratio of the selected commercial banks. The mean ($\in X$) of fixed assets turnover ratio of NABIL, EBL and SCBNL are 5.314, 6.782 and 14.866 respectively.

The fixed assets turnover ratio of the SCBNL is increased till the fiscal year 2067/68 and than decreased but the fixed assets turnover ratio of EBL and NABIL is fluctuated. The highest fixed assets turnover ratio of NABIL is 7.11 and lowest ratio is 4.18 in the fiscal year 2069/70 and 2067/68 respectively. Correspondingly, the highest fixed assets turnover ratio of EBL is 8.06 and lowest ratio is 5.80 in the fiscal year 2069/70 and 2065/66 respectively as well as SCBNL's highest fixed assets turnover ratio is 22.07 and lowest ratio is 7.85 in the fiscal year 2067/68 and 2065/66 respectively.

The mean of fixed assets turnover ratio of SCBNL is the highest i.e. 14.866 than that of two other banks. Standard deviation of fixed assets turnover ratio of NABIL, EBL and SCBNL are 1.079, 0.75 and 4.837 respectively. Coefficient of variation of NABIL is 20.30%, EBL is 11.06% and SCBNL is 32.54%. This ratio can be presented in the following graph.

Figure – 4.15

4.3.3.2 Total Assets Turnover Ratios

Total assets turnover ratio measured the turnover of all firm assets. A high total assets turnover ratio indicates efficient utilization of total assets in income generation while a low ratio indicates inefficient management utilization of total assets.

Total assets turnover ratio of NABIL, EBL and SCBNL. are presented below in the table (Detail in Appendix -)

Table 4.23
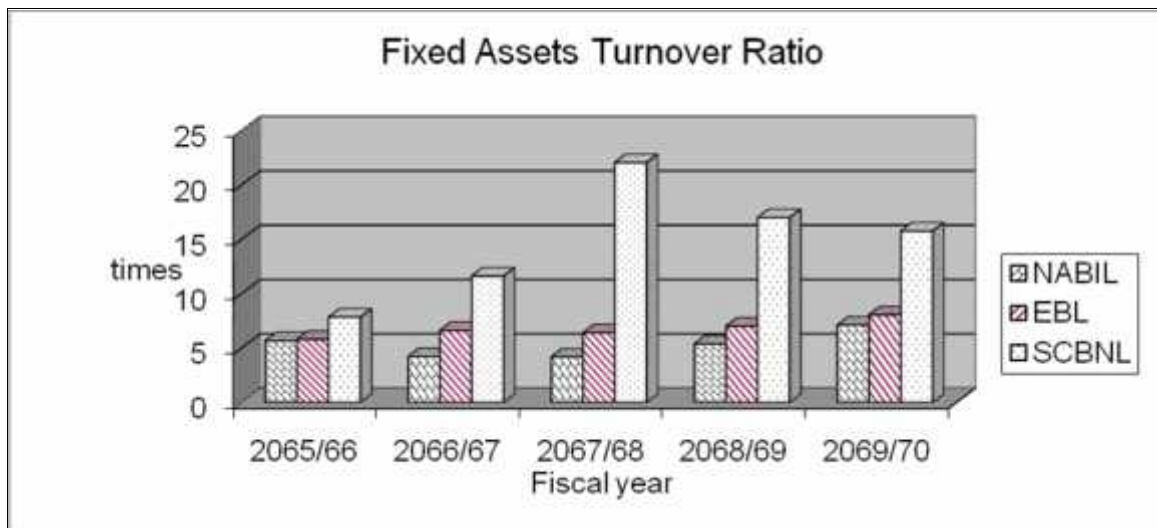**Total Assets Turnover Ratio (in times)**

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	0.09	0.08	0.072
2066/67	0.09	0.08	0.067
2067/68	0.09	0.07	0.072
2068/69	0.08	0.07	0.067
2069/70	0.07	0.06	0.069
Mean ($\in$X)	0.084	0.072	0.069
S.D.	0.008	0.0075	0.0022
C.V. (%)	9.52	10.42	3.17

Above table 4.23 depicts the total assets turnover ratio of the selected commercial banks. The mean ($\in$X) of total assets turnover ratio of NABIL, EBL and SCBNL are 0.084, 0.072 and 0.069 respectively.

The total assets turnover ratio of the banks is decreasing with fluctuated. The highest total assets turnover ratio of NABIL is 0.09 and lowest ratio is 0.07. Similarly, the highest total assets turnover ratio of EBL is 0.08 and lowest ratio is 0.06.

The mean of total assets turnover ratio of NABIL is the highest i.e. 0.084 than that of the EBL and SCBNL. Standard deviation of total assets turnover ratio of NABIL,

EBL and SCBNL are 0.008, 0.0075 and 0.0022 respectively. Coefficient of variation of NABIL is 9.52%, EBL is 10.42% and SCBNL is 3.17%. This ratio can be presented in the following graph.

Figure – 4.16
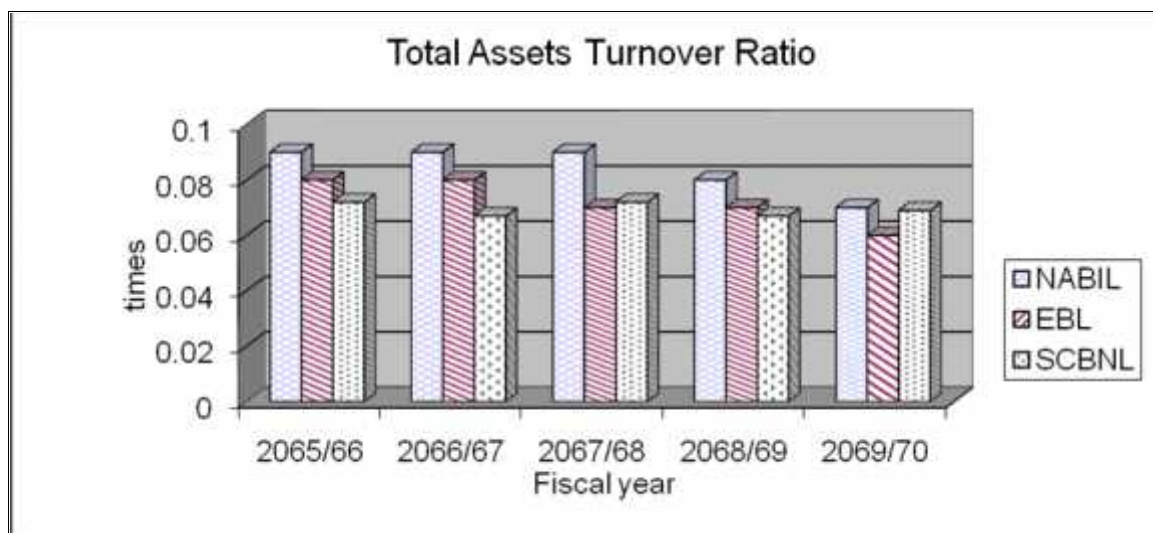
4.3.3.3 Capital Employed Turnover Ratios

Capital employed represent the long term sources of fund availed and used to finance fixed assets and net current assets. This ratio measures the efficiency of the banks in the utilization of permanent source of capital. Usually, greater ratio serves as an indicator of better utilization of long term funds provided by owners and creditors.

Capital employed turnover ratio of NABIL, EBL and SCBNL. are presented below in the table (Detail in Appendix -)

Table 4.24
Capital Employed Turnover Ratio (in times)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	1.09	1.25	1.10
2066/67	0.96	1.28	1.06
2067/68	0.91	1.16	1.00
2068/69	0.92	1.75	0.98
2069/70	0.99	1.12	0.94
Mean ($\in$X)	0.974	1.312	1.016
S.D.	0.065	0.2266	0.057
C.V. (%)	6.67	17.27	5.61

Above table 4.24 depicts the capital employed turnover ratio of the selected commercial banks. The mean ($\in$X) of capital employed turnover ratio of NABIL, EBL and SCBNL are 0.974, 1.312 and 1.016 respectively.

The capital employed turnover ratio of NABIL and EBL are fluctuating over the study period but SCBNL is slowly decreased during the study period. The highest capital employed turnover ratio of NABIL is 1.09 and lowest ratio is 0.91 in the fiscal year 2065/66 and 2067/68 respectively. In the same way, the highest capital employed turnover ratio of EBL is 1.75 and lowest ratio is 1.12 in the fiscal year 2068/69 and 2069/70 respectively as well as SCBNL's highest capital employed turnover ratio is 1.10 and lowest ratio is 0.94 in the fiscal year 2065/66 and 2069/70 respectively.

The mean of capital employed turnover ratio of EBL is the highest i.e. 1.312 than that of two other banks i.e. NABIL and SCBNL. Standard deviation of capital employed turnover ratio of NABIL, EBL and SCBNL are 0.065, 0.2266 and 0.057 respectively. Coefficient of variation of NABIL is 6.67%, EBL is 17.27% and SCBNL is 5.61%. This ratio can be presented in the following graph.

Figure – 4.17

4.3.3.4 Investment Turnover Ratio

This ratio measures the efficiency of the banks in the utilization of collected funds in the form of investment to generate income. Commercial banks invest in different securities issued by government and other financial and non-financial companies.

Investment turnover ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)
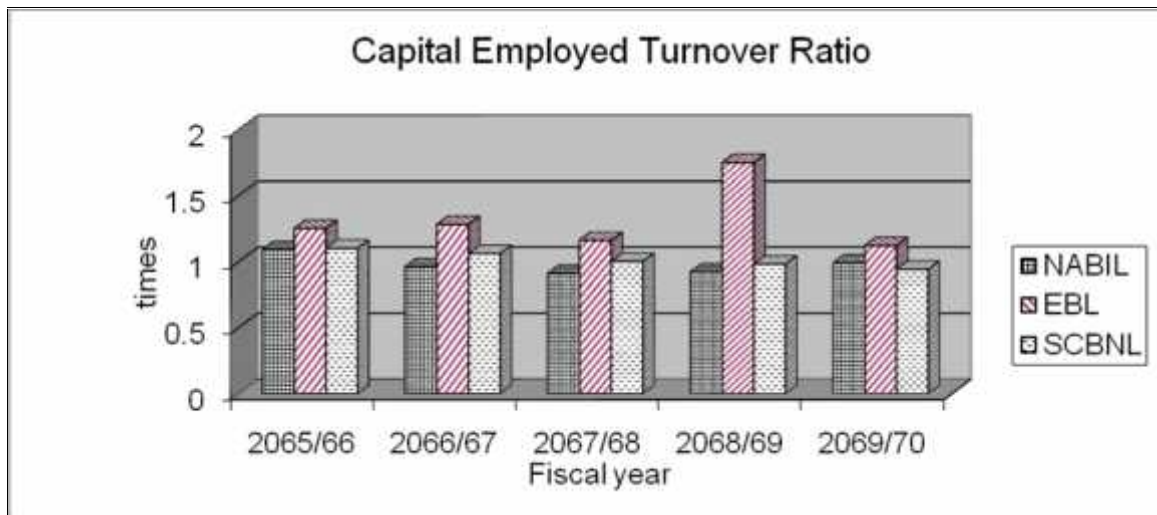
Table 4.25
Investment Turnover Ratio (in times)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	0.22	0.38	0.15
2066/67	0.24	0.31	0.14
2067/68	0.35	0.40	0.16
2068/69	0.28	0.25	0.13
2069/70	0.23	0.27	0.15
Mean ($\in X$)	0.264	0.322	0.146
S.D.	0.047	0.059	0.01
C.V. (%)	17.80	18.32	6.85

Above table 4.25 depicts the investment turnover ratio of the selected commercial banks. The mean ($\in X$) of investment turnover ratio of NABIL, EBL and SCBNL are 0.264, 0.322 and 0.146 respectively.

The investment turnover ratio of the EBL and SCBNL are fluctuating over the study period but NABIL's ratio is increased till the fiscal year 2067/68 thereafter decreased. The highest investment turnover ratio of NABIL is 0.35 and lowest ratio is 0.22 in the fiscal year 2067/68 and 2065/66 respectively. In the same way, the highest investment turnover ratio of EBL is 0.40 and lowest ratio is 0.25 in the fiscal year 2067/68 and 2068/69 respectively as well as SCBNL's highest investment turnover ratio is 0.16 and lowest ratio is 0.13 in the fiscal year 2067/68 and 2068/69 respectively.

The mean of investment turnover ratio of EBL is the highest i.e. 0.322 than that of two other banks i.e. NABIL and SCBNL. Standard deviation of investment turnover ratio of NABIL, EBL and SCBNL are 0.047, 0.059 and 0.01 respectively. Coefficient of variation of NABIL is 17.80%, EBL is 18.32% and SCBNL is 6.85%. This ratio can be presented in the following graph.

Figure – 4.18
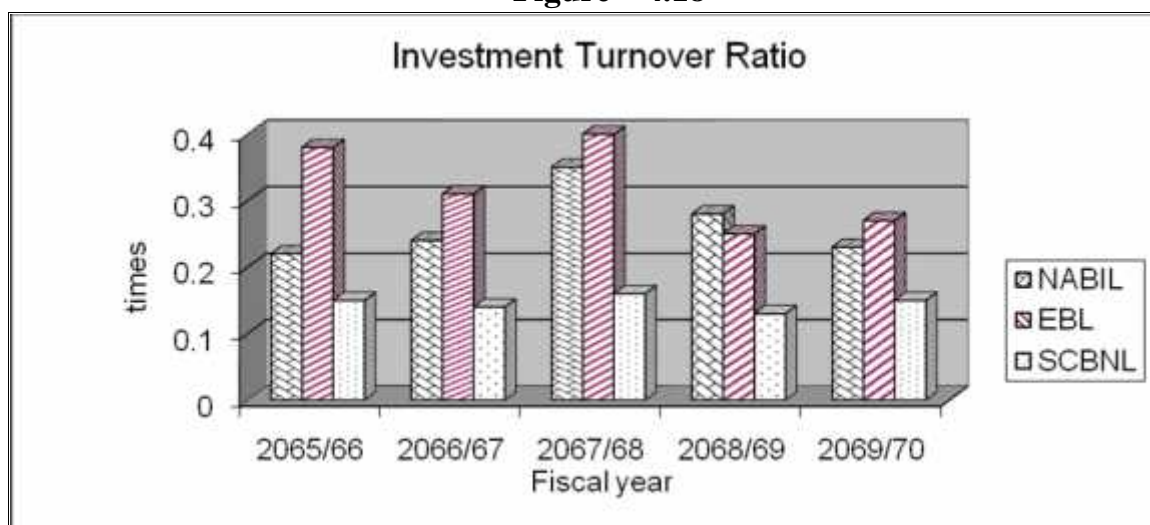
4.3.3.5 Cash & Bank Balance Turnover ratio

Cash and bank balance are the most liquid current assets. This ratio measures the efficiency of the banks in utilization of the cash and bank balance to generate income. A high cash and bank balance turnover ratio indicates efficient utilization of current assets in income generation while a low ratio indicates inefficient management utilization of current assets under cash and bank balance.

Cash & bank balance turnover ratio of NABIL, EBL and SCBNL. are presented below in the table (Detail in Appendix -)

**Table 4.26**

Cash & Bank Balance Turnover Ratio (in times)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	1.25	0.56	0.99
2066/67	1.47	1.24	0.78
2067/68	1.36	0.82	1.42
2068/69	2.73	0.69	1.35
2069/70	1.46	0.57	0.98
Mean ($\in X$)	1.654	0.776	1.104
S.D.	0.544	0.25	0.242
C.V. (%)	32.89	32.22	21.92

Above table 4.26 depicts the cash and bank balance turnover ratio of the selected commercial banks. The mean ($\in X$) of cash and bank balance turnover ratio of NABIL, EBL and SCBNL are 1.654, 0.776 and 1.104 respectively.

The cash and bank balance turnover ratio of the banks is fluctuating over the study period. The highest cash and bank balance turnover ratio of NABIL is 2.73 and lowest ratio is 1.25 in the fiscal year 2068/69 and 2065/66 respectively. In the same way, the highest cash and bank balance turnover ratio of EBL is 1.24 and lowest ratio is 0.56 in the fiscal year 2067/68 and 2065/66 respectively as well as SCBNL's highest cash and bank balance turnover ratio is 1.42 and lowest ratio is 0.78 in the fiscal year 2067/68 and 2066/67 respectively.

The mean of cash and bank balance turnover ratio of NABIL is the highest i.e. 1.654 than that of two other banks i.e. SCBNL and EBL. Standard deviation of cash and bank balance turnover ratio of NABIL, EBL and SCBNL are 0.544, 0.25 and 0.242 respectively. Coefficient of variation of NABIL is 32.89%, EBL is 32.22% and SCBNL is 21.92%. This ratio can be presented in the following graph.

Figure – 4.19

Cash & Bank Balance Turnover Ratio

4.3.3.6 Loan and Advances to Total Deposit Ratio

This ratio measures the extent to which banks are able to extend loans and advances from the total deposits collected by the banks from the public. A high ratio indicates the better mobilization of collection deposit and vice versa. But it is known that high ratio may not be better from the liquidity point of view.

Loan and advances to total deposit ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.27
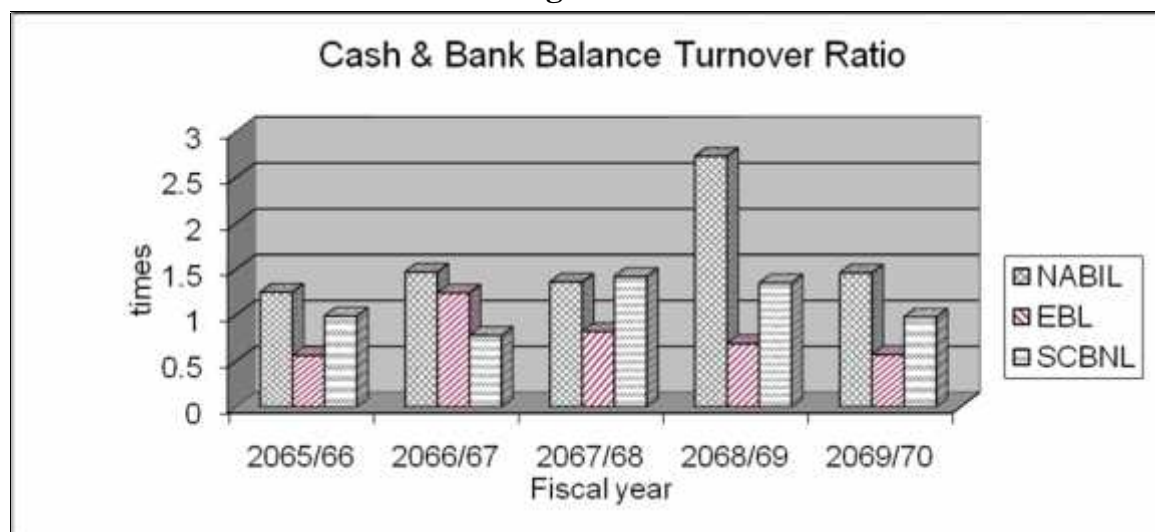
Loan and Advances to Total Deposit Ratio (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	61.10	73.32	30.37
2066/67	51.71	72.97	30.29
2067/68	72.57	75.45	42.12
2068/69	66.79	71.01	38.75
2069/70	66.60	75.14	42.61
Mean ($\overline{X}$)	63.754	73.578	36.828
S.D.	7.031	1.611	5.47
C.V. (%)	11.03	2.19	14.85

Above table 4.27 depicts the loans and advances to total deposit ratio of the selected commercial banks. The mean ($\overline{X}$) of loans and advances to total deposit ratio of NABIL, EBL and SCBNL are 63.754, 73.578 and 36.828 respectively.

The loans and advances to total deposit ratio of the banks is fluctuating over the study period. The highest loans and advances to total deposit ratio of NABIL is 72.57 and lowest ratio is 51.71 in the fiscal year 2067/68 and 2066/67 respectively. Correspondingly, the highest loans and advances to total deposit ratio of EBL is 75.45

and lowest ratio is 71.01 in the fiscal year 2067/68 and 2068/69 respectively as well as SCBNL's highest loans and advances to total deposit ratio is 42.61 and lowest ratio is 30.29 in the fiscal year 2067/68 and 2066/67 respectively.

The mean of loans and advances to total deposit ratio of EBL is the highest i.e. 73.578 than that of two other banks. Standard deviation of loans and advances to total deposit ratio of NABIL, EBL and SCBNL are 7.031, 1.611 and 5.47 respectively. Coefficient of variation of NABIL is 11.03%, EBL is 2.19% and SCBNL is 14.85%. This ratio can be presented in the following graph.

Figure – 4.20
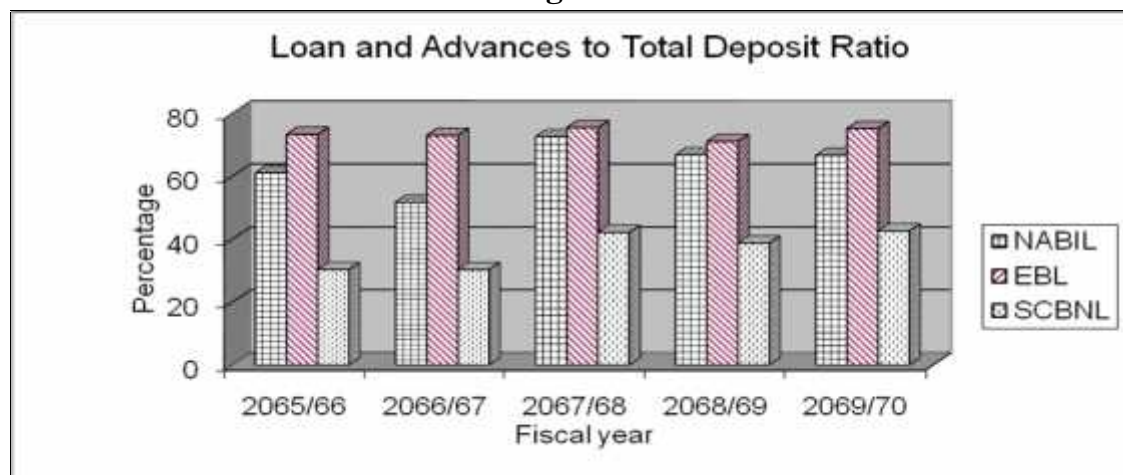
4.3.3.7 Investment to Total Deposit Ratio

This ratio measures the utilization of outsider's fund or total deposit in the form of investment to generate profit. Commercial banks mobilize its fund by investing in different securities issued by government and other financial and non-financial companies. A high ratio indicates high success in utilization of funds.

Investment to Total Deposit ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.18
Investment to Total Deposit Ratio (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	51.21	24.71	55.22
2066/67	36.85	31.45	53.68
2067/68	29.25	21.08	50.18
2068/69	31.93	30.44	55.67
2069/70	38.32	27.41	54.99
Mean (€X)	37.512	27.018	53.948
S.D.	7.591	3.797	1.997
C.V. (%)	20.24	14.05	3.70

Above table 4.28 depicts the investment to total deposit ratio of the selected commercial banks. The mean ($\in X$) of investment to total deposit ratio of NABIL, EBL and SCBNL are 37.512, 27.018 and 53.948 respectively.

The investment to total deposit ratio of the EBL and SCBNL are fluctuating over the study period. The investment to total deposit ratio of the NABIL is decreased till the fiscal year 2067/68 thereafter increased. The highest investment to total deposit ratio of NABIL is 51.21 and lowest ratio is 29.25 in the fiscal year 2065/66 and 2067/68 respectively. Similarly, the highest investment to total deposit ratio of EBL is 31.45 and lowest ratio is 21.08 in the fiscal year 2066/67 and 2067/68 respectively as well as SCBNL's highest investment to total deposit ratio is 55.67 and lowest ratio is 50.18 in the fiscal year 2068/69 and 2067/68 respectively.

The mean of investment to total deposit ratio of SCBNL is the highest i.e. 53.948 than that of two other banks. Standard deviation of investment to total deposit ratio of NABIL, EBL and SCBNL are 7.591, 3.797 and 1.997 respectively. Coefficient of variation of NABIL is 20.24%, EBL is 14.05% and SCBNL is 3.70%. This ratio can be presented in the following graph.

Figure – 4.21

4.3.3.8 Loan and Advances to Total Assets

This ratio reflects the extent to which total assets of the banks are covered by income generating asset, i.e. loan and advances. Income from loans and advances is the one of the most profit-contributing source of bank. It is calculated by dividing loan and advances by total assets.

Loan and Advances to Total Assets ratio of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.29

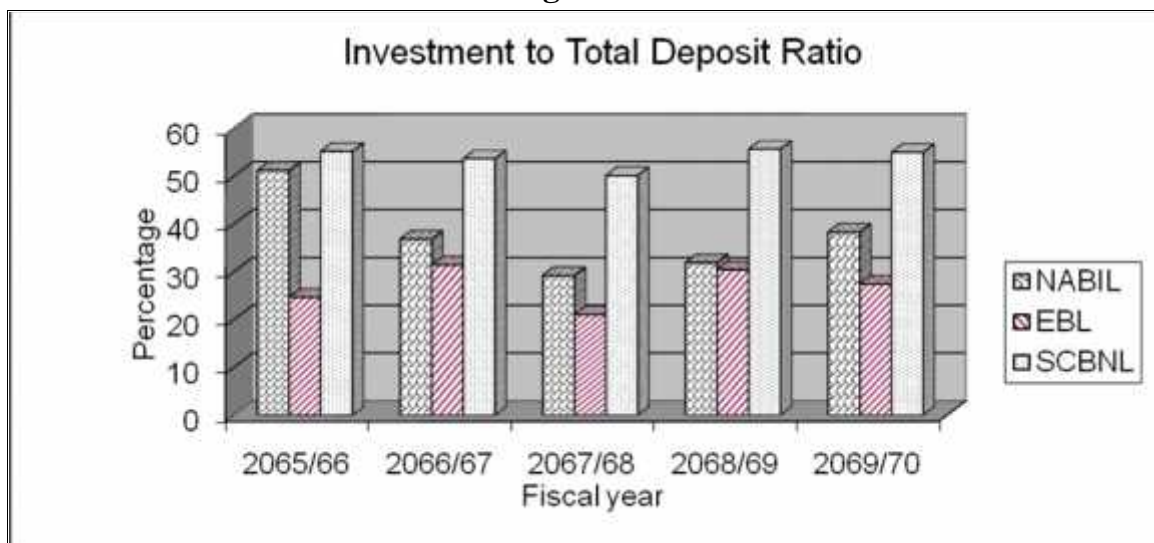**Loan and Advances to Total Assets Ratio (in %)**

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	47.14	60.96	27.24
2066/67	48.91	61.24	27.11
2067/68	61.60	64.94	37.19
2068/69	57.87	61.41	34.68
2069/70	57.04	63.76	36.73
Mean ($\in$X)	54.512	62.462	32.59
S.D.	5.543	1.535	4.502
C.V. (%)	10.17	2.46	13.81

Above table 4.29 depicts the loans and advances to total assets ratio of the selected commercial banks. The mean ($\in$X) of loans and advances to total assets ratio of NABIL, EBL and SCBNL are 54.512, 62.462 and 32.59 respectively.

The loans and advances to total assets ratio of the banks is fluctuating over the study period. The highest loans and advances to total assets ratio of NABIL is 61.60 and lowest ratio is 47.14 in the fiscal year 2067/68 and 2065/66 respectively. Correspondingly, the highest loans and advances to total assets ratio of EBL is 64.94 and lowest ratio is 60.96 in the fiscal year 2067/68 and 2065/66 respectively as well as SCBNL's highest loans and advances to total assets ratio is 37.19 and lowest ratio is 27.11 in the fiscal year 2066/67 and 2067/68 respectively.

The mean of loans and advances to total assets ratio of EBL is the highest i.e. 62.462 than that of two other banks. Standard deviation of loans and advances to total assets ratio of NABIL, EBL and SCBNL are 5.543, 1.535 and 4.502 respectively. Coefficient of variation of NABIL is 10.17%, EBL is 2.46% and SCBNL is 13.81%. This ratio can be presented in the following graph.

Figure – 4.22
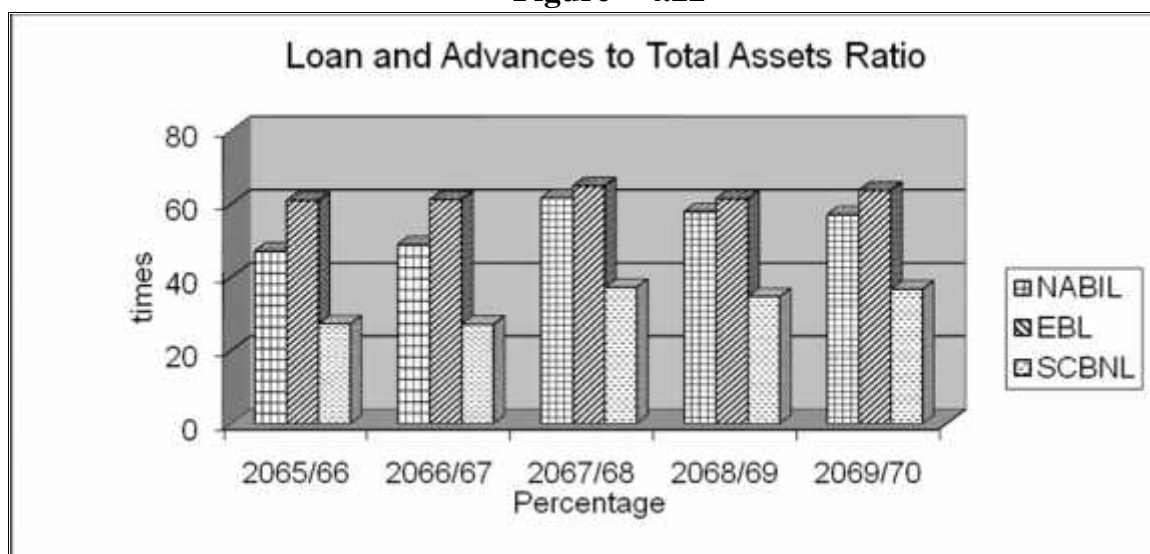
4.3.4 Profitability Ratios

Profitability ratios measure the overall performance of the bank by determining the effectiveness of the bank in generating profit and are calculating by establishing relationship between profit and assets.

Profitability ratio indicates the degree of success in achieving desired profit. Various profitability ratios are calculated to measure the efficiency of the bank. Success and failure of the bank depends upon its profitability showing how efficiently it is utilizing its deposit. The various ratios to measure the efficiency of the bank are as follows.

4.3.4.1 Return on Loans & Advances

It measures the earning capacity of commercial banks on its deposits mobilized on loan and advances. Mostly loan and advances include loan, cash credit, overdrafts bills purchased and discounted.

Return on loans and advances ratio of NABIL, EBL and SCBNL. are presented below in the table (Detail in Appendix -)

Table 4.30
Return on Loans & Advances (in %)

| Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	5.33	1.92	8.90
2066/67	5.56	2.44	8.39
2067/68	4.90	2.24	6.62
2068/69	4.92	2.44	7.37
2069/70	4.34	2.19	6.59
Mean ($\bar{X}$)	5.01	2.246	7.574
S.D.	0.418	0.192	0.932
C.V. (%)	8.34	8.55	12.31

Above table 4.30 depicts the return on loans and advances ratio of the selected commercial banks. The mean ($\bar{X}$) of return on loans and advances ratio of NABIL, EBL and SCBNL are 5.01, 2.246 and 7.574 respectively.

The return on loans and advances ratio of the banks is fluctuating over the study period. The highest return on loans and advances ratio of NABIL is 5.56 and lowest ratio is 4.34 in the fiscal year 2066/67 and 2069/70 respectively. Similarly, the highest return on loans and advances ratio of EBL is 2.44 and lowest ratio is 1.92 as well as SCBNL's highest return on loans and advances ratio is 8.90 and lowest ratio is 6.59 in the fiscal year 2065/66 and 2069/70 respectively.

The mean of return on loans and advances ratio of SCBNL is the highest i.e. 7.574 than that of two other banks i.e. EBL and NABIL. Standard deviation of return on loans and advances ratio of NABIL, EBL and SCBNL are 0.418, 0.192 and 0.932

respectively. Coefficient of variation of NABIL is 8.34%, EBL is 8.55% and SCBNL is 12.31%.

To make bank's profitability and return from loans and advances is satisfactory; the banks should really make an effort in loans and advances efficiently to generate adequate level of return. This ratio can be presented in the following graph.

Figure – 4.23
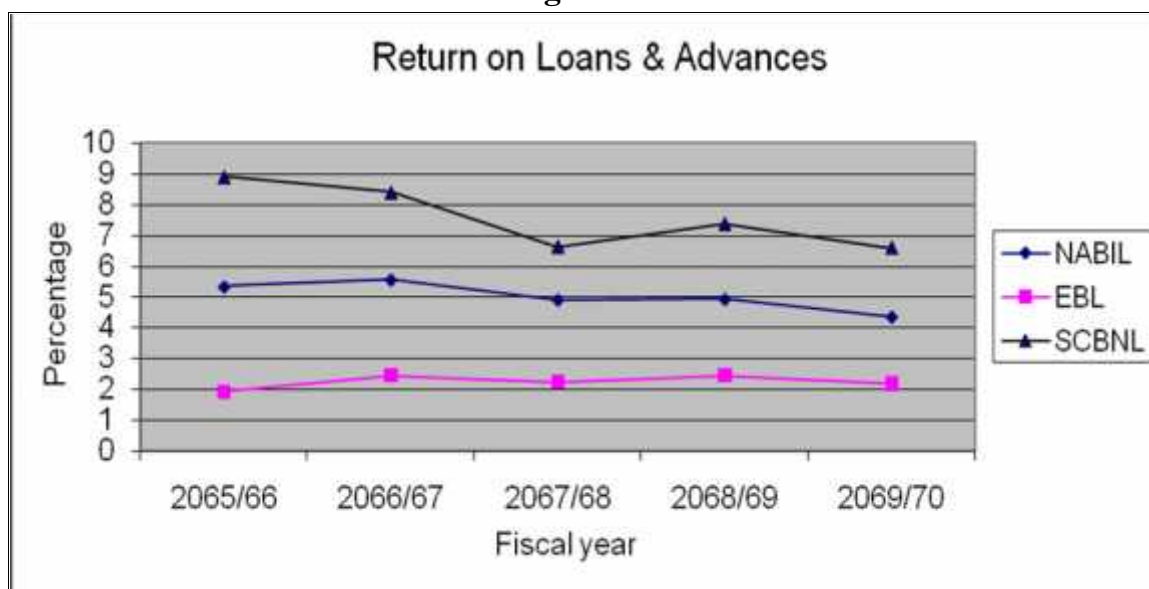
4.3.4.2 Return on Total Weighted Risk Assets

The ratio of return on total weighted risk assets is useful in measuring the profitability of all financial resource invested in the banks risky assets. In other words, return on total weighted risk assets is the contribution of weighted risk assets to net profit.

Return on total weighted risk assets of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.31
Return on Total Weighted Risk Assets (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	3.73	1.65	5.31
2066/67	3.84	2.07	5.37
2067/68	2.32	1.86	5.14
2068/69	3.74	2.12	5.33
2069/70	3.52	2.00	4.88
Mean ($\in X$)	3.43	1.94	5.206
S.D.	0.565	0.169	0.181
C.V. (%)	16.47	8.71	3.48

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Above table 4.31 depicts the return on total weighted risk assets ratio of the selected commercial banks. The mean (∈X) of return on total weighted risk assets ratio of NABIL, EBL and SCBNL are 3.43, 1.94 and 5.206 respectively.

The return on total weighted risk assets ratio of the banks is fluctuating over the study period. The highest return on total weighted risk assets ratio of NABIL is 3.84 and lowest ratio is 2.32 in the fiscal year 2065/66 and 2067/68 respectively. Similarly, the highest return on total weighted risk assets ratio of EBL is 2.12 and lowest ratio is 1.65 in the fiscal year 2068/69 and 2065/66 respectively as well as SCBNL's highest return on total weighted risk assets ratio is 5.37 and lowest ratio is 4.88 in the fiscal year 2066/67 and 2069/70 respectively.

The mean of return on total weighted risk assets ratio of SCBNL is the highest i.e. 5.206 than that of two other banks i.e. EBL and SCBNL. Standard deviation of return on total weighted risk assets ratio of NABIL, EBL and SCBNL are 0.565, 0.169 and 0.181 respectively. Coefficient of variation of NABIL is 16.47%, EBL is 8.71% and SCBNL is 3.48%.

To make bank's profitability and return from weighted risk assets is satisfactory; the banks should really make an effort in risk assets efficiently to generate adequate level of return. This ratio can be presented in the following graph.

Figure – 4.24
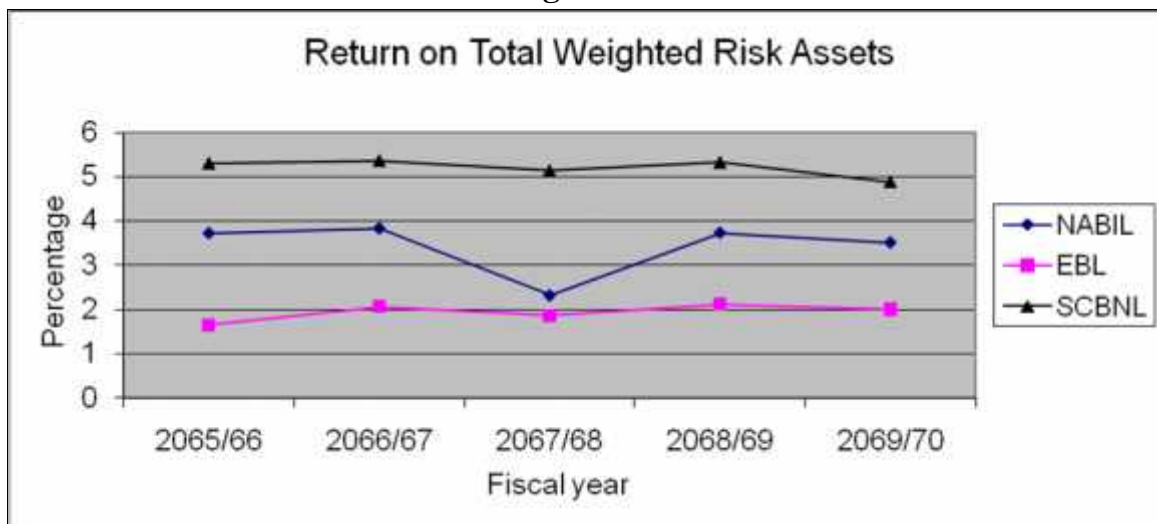
4.3.4.3 Return on Total Deposit

Total deposit of the bank is its creditorship. The prior objective of the bank is collected more deposit and utilization in various sectors i.e. to earn high profit there by maximizing return on its total deposits. This ratio reflects the extent to which the banks have been successful in mobilizing its total deposits.

Return on total deposit of NABIL, EBL and SCBNL. are presented below in the table (Detail in Appendix -)

Table 4.32
Return on Total Deposit (in %)

| Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	3.26	1.41	2.70
2066/67	2.87	1.78	2.54
2067/68	3.56	1.69	2.79
2068/69	3.28	1.73	2.86
2069/70	2.89	1.65	2.81
Mean (∈X)	3.172	1.652	2.74
S.D.	0.261	0.128	0.113
C.V. (%)	8.23	7.75	4.12

Above table 4.32 depicts the return on total deposit ratio of the selected commercial banks. The mean (∈X) of return on total deposit ratio of NABIL, EBL and SCBNL are 3.172, 1.652 and 2.74 respectively.

The return on total deposit ratio of the banks is fluctuating over the study period. The highest return on total deposit ratio of NABIL is 3.56 and lowest ratio is 2.87 in the fiscal year 2067/68 and 2066/67 respectively. Similarly, the highest return on total deposit ratio of EBL is 1.78 and lowest ratio is 1.41 in the fiscal year 2066/67 and 2065/66 respectively as well as SCBNL's highest return on total deposit ratio is 2.86 and lowest ratio is 2.54 in the fiscal year 2068/69 and 2066/67 respectively.

The mean of return on total deposit ratio of NABIL is the highest i.e. 3.172 than that of two other banks i.e. EBL and SCBNL. Standard deviation of return on total deposit ratio of NABIL, EBL and SCBNL are 0.261, 0.128 and 0.113 respectively. Coefficient of variation of NABIL is 8.23%, EBL is 7.75% and SCBNL is 4.12%.

To make bank's profitability and return from total deposit is satisfactory; the banks should really make an effort in total deposit, its collect efficiently to generate adequate level of return. This ratio can be presented in the following graph.

Figure – 4.25

4.3.4.4 Return on Total Assets

This ratio is calculated to reveal the profitability of the banks with respect to total assets. It measures the profitability of all financial resources invested in the banks assets.

Return on total assets of NABIL, EBL and SCBNL. are presented below in the table (Detail in Appendix -)

Table 4.33
Return on Total Assets (in %)

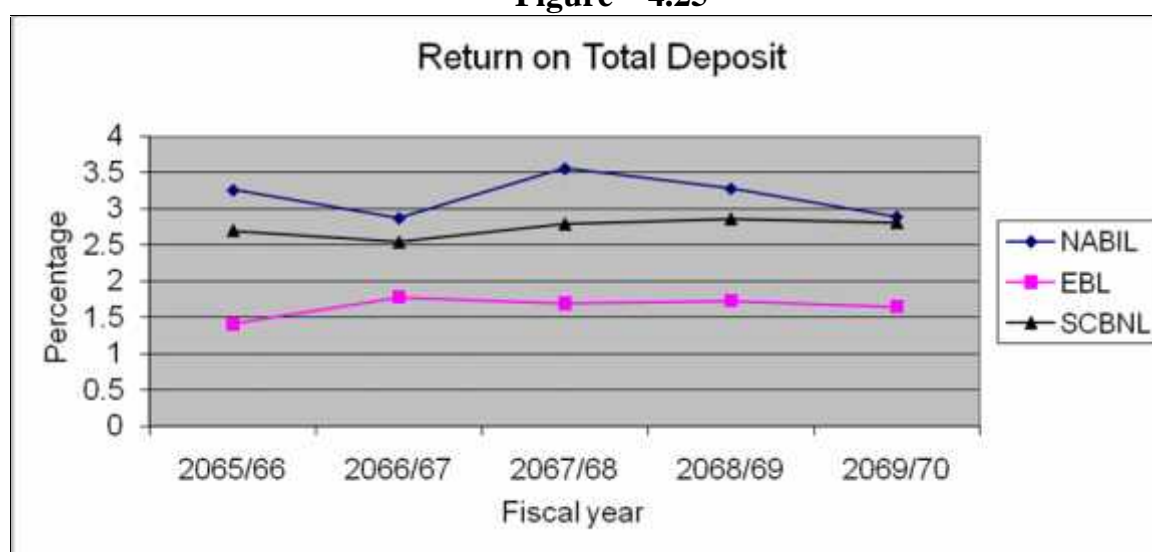| Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	2.51	1.17	2.42
2066/67	2.72	1.49	2.27
2067/68	3.02	1.46	2.46
2068/69	2.84	1.50	2.56
2069/70	2.47	1.40	2.42
Mean ($\in X$)	2.712	1.404	2.426
S.D.	0.205	0.122	0.093
C.V. (%)	7.56	8.69	3.83

Above table 4.33 depicts the return on total assets ratio of the selected commercial banks. The mean ($\in X$) of return on total assets ratio of NABIL, EBL and SCBNL are 2.712, 1.404 and 2.426 respectively.

The return on total assets ratio of the EBL and SCBNL is fluctuating over the study period but the return on total assets ratio of the NABIL is increased till the fiscal year 2067/68 there after decreased. The highest return on total assets ratio of NABIL is 3.02 and lowest ratio is 2.47 in the fiscal year 2067/68 and 2069/70 respectively. Similarly, the highest return on total assets ratio of EBL is 1.50 and lowest ratio is 1.17 in the fiscal year 2068/69 and 2065/66 respectively as well as SCBNL's highest return on total assets ratio is 2.56 and lowest ratio is 2.27 in the fiscal year 2068/69 and 2066/67 respectively.

The mean of return on total assets ratio of NABIL is the highest i.e. 2.712 than that of two other banks i.e. EBL and SCBNL. Standard deviation of return on total assets ratio of NABIL, EBL and SCBNL are 0.205, 0.122 and 0.093 respectively. Coefficient of variation of NABIL is 7.56%, EBL is 8.69% and SCBNL is 3.83%.

The bank's return on asset is not satisfactory. The bank's should utilize the idle assets accumulate by the bank. This ratio can be presented in the following graph.

Figure – 4.26
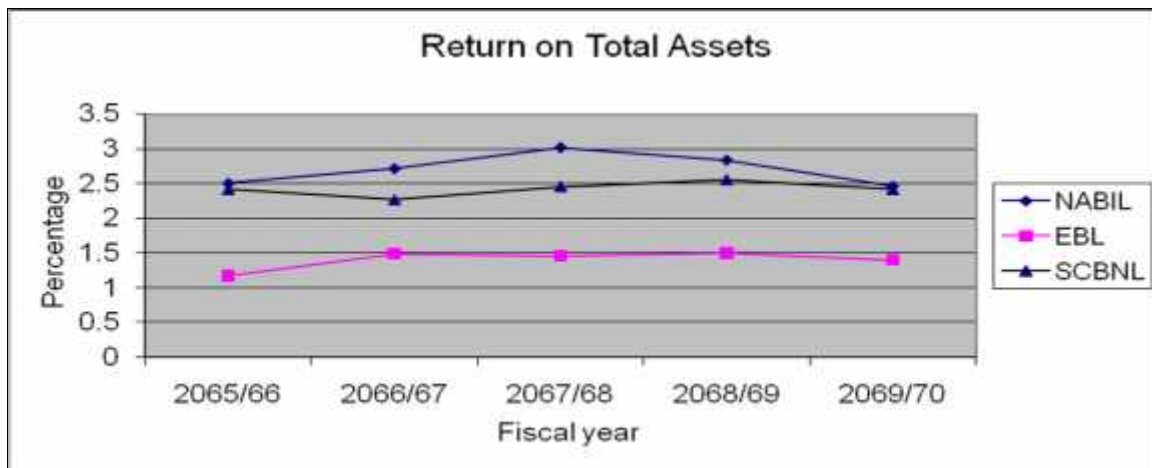
4.3.4.5 Return on Shareholder's Equity

The equity capital of the bank is its owned capital. The prior objective of the bank is wealth maximization i.e. to earn high profit there by maximizing return on its equity capital. This ratio reflects the extent to which the banks have been successful in mobilizing its equity capital. Return on shareholder's equity of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.34

Return on Shareholder's Equity (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	31.67	15.34	37.03
2066/67	30.73	18.84	35.96
2067/68	31.29	17.11	34.07
2068/69	33.88	19.94	37.55
2069/70	32.76	19.77	32.68
Mean ($\in$X)	32.066	18.20	35.458
S.D.	1.124	1.747	1.83
C.V. (%)	3.51	9.60	5.16

Above table 4.34 depicts the return on shareholder's equity ratio of the selected commercial banks. The mean ($\in$X) of return on shareholder's equity ratio of NABIL, EBL and SCBNL are 32.066, 18.20 and 35.458 respectively.

The return on shareholder's equity ratio of the banks are fluctuating over the study period. The highest return on shareholder's equity ratio of NABIL is 33.88 and lowest ratio is 30.73 in the fiscal year 2068/69 and 2066/67 respectively. Similarly, the highest return on shareholder's equity ratio of EBL is 19.94 and lowest ratio is 15.34 in the fiscal year 2068/69 and 2065/66 respectively as well as SCBNL's highest return

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on shareholder's equity ratio is 37.55 and lowest ratio is 32.68 in the fiscal year 2068/69 and 2069/70 respectively.

The mean of return on shareholder's equity ratio of SCBNL is the highest i.e. 35.458 than that of two other banks i.e. EBL and NABIL. Standard deviation of return on shareholder's equity ratio of NABIL, EBL and SCBNL are 1.124, 1.747 and 1.83 respectively. Coefficient of variation of NABIL is 3.51%, EBL is 9.60% and SCBNL is 5.16%. The banks should keep up with generating the profit at the same rate at which shareholder's fund are increasing. This ratio can be presented in the following graph.

Figure – 4.27
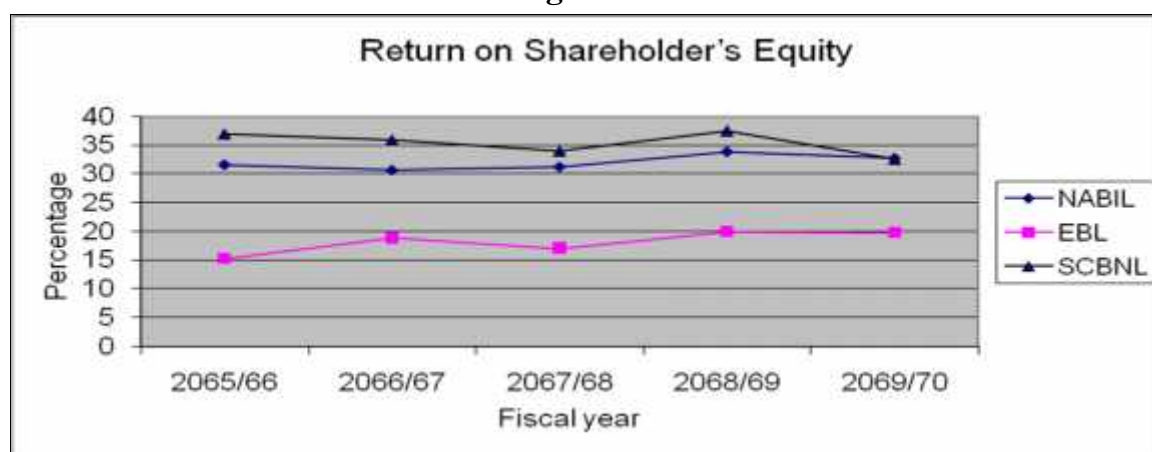
4.3.4.6 Return on Investment

This ratio measures how well the banks have invested its resources to generate profit and to indicate percentage of return from it higher ratio represents higher efficiency of banks. Return on investment of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.35

Return on Investment (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	6.36	5.69	4.89
2066/67	7.80	5.66	4.73
2067/68	12.15	8.02	5.56
2068/69	10.28	5.69	5.13
2069/70	7.53	6.01	5.10
Mean ($\in$X)	8.824	6.214	5.082
S.D.	2.096	0.912	0.28
C.V. (%)	23.75	14.68	5.51

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Above table 4.35 depicts the return on investment ratio of the selected commercial banks. The mean (∈X) of return on investment ratio of NABIL, EBL and SCBNL are 8.824, 6.214 and 5.082 respectively.

The return on investment ratio of the EBL and SCBNL is fluctuating over the study period. The return on investment ratio of the NABIL is rapidly increased till the fiscal year2067/68 and thereafter smoothly decreased. The highest return on investment ratio of NABIL is 12.15 and lowest ratio is 6.36 in the fiscal year 2067/68 and 2065/66 respectively. Similarly, the highest return on investment ratio of EBL is 8.02 and lowest ratio is 5.66 in the fiscal year 2067/68 and 2066/67 respectively as well as SCBNL's highest return on investment ratio is 5.56 and lowest ratio is 4.73 in the fiscal year 2067/68 and 2066/67 respectively.

The mean of return on investment ratio of NABIL is the highest i.e. 8.824 than that of two other banks i.e. EBL and SCBNL. Standard deviation of return on investment ratio of NABIL, EBL and SCBNL are 2.096, 0.912 and 0.28 respectively. Coefficient of variation of NABIL is 23.75%, EBL is 14.68% and SCBNL is 5.51%. To make bank's profitability and return from investment is satisfactory, the banks should really make an effort in investing its resources efficiently to generate adequate level of return. This ratio can be presented in the following graph.

Figure – 4.28

4.3.4.7 Return on Capital Employed

The capital employed of the bank is its owned capital and long-term liabilities. The prior purpose of the bank is wealth maximization i.e. to earn high profit there by maximizing return on its capital. This ratio reflects the extent to which the banks have been successful in mobilizing its capital. Return on capital employed of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)
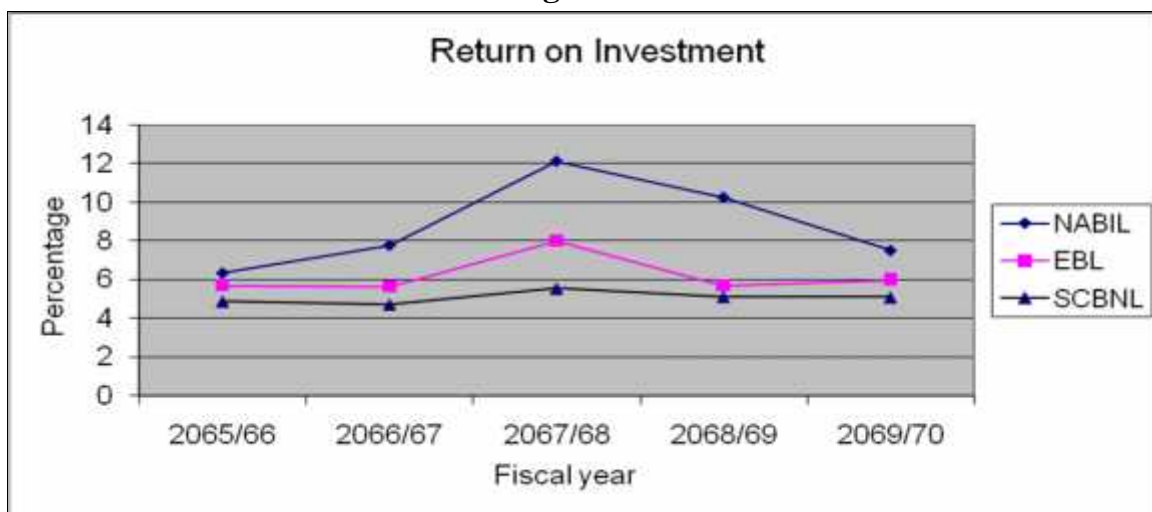
Table 4.36

Return on Capital Employed (in %)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	31.67	18.57	37.03
2066/67	30.73	23.49	35.96
2067/68	31.29	23.05	34.07
2068/69	33.88	39.10	37.55
2069/70	32.76	24.51	32.68
Mean ($\in X$)	32.066	25.744	35.458
S.D.	1.124	6.981	1.83
C.V. (%)	3.51	27.12	5.16

Above table 4.36 depicts the return on capital employed ratio of the selected commercial banks. The mean ($\in X$) of return on capital employed ratio of NABIL, EBL and SCBNL are 32.066, 25.744 and 35.458 respectively.

The return on capital employed ratio of the banks is fluctuating over the study period. The highest return on capital employed ratio of NABIL is 33.88 and lowest ratio is 30.73 in the fiscal year 2068/69 and 2066/67 respectively. Similarly, the highest return on capital employed ratio of EBL is 39.10 and lowest ratio is 18.57 in the fiscal year 2068/69 and 2065/66 respectively as well as SCBNL's highest return on capital employed ratio is 37.55 and lowest ratio is 32.68 in the fiscal year 2068/69 and 2069/70 respectively.

The mean of return on capital employed ratio of SCBNL is the highest i.e. 35.458 than that of two other banks i.e. EBL and NABIL. Standard deviation of return on capital employed ratio of NABIL, EBL and SCBNL are 1.124, 6.981 and 1.83 respectively. Coefficient of variation of NABIL is 3.51%, EBL is 27.12% and SCBNL is 5.16%. To make bank's profitability and return from total capital is satisfactory, the banks should really make an effort in the capital efficiently to generate adequate level of return. This ratio can be presented in the following graph.

Figure – 4.29
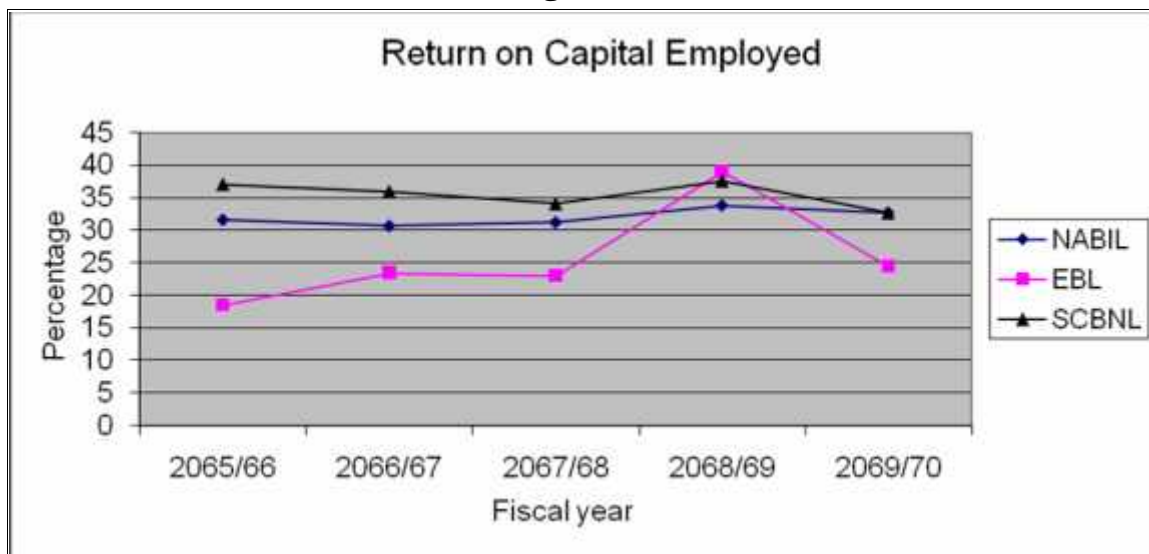
4.3.4.8 Earning Per Share

The profitability of the firm or company from the point of view of the ordinary shareholders is earnings per share. It measures the profit available to the equity shareholders on a per share basis that is the amount that they can get on every share held. It represents what the owners are theoretically entitled to receive from the bank. Earning per share of NABIL, EBL and SCBNL are presented below in the table (Detail in Appendix -)

Table 4.37
Earning Per Share (in Rs.)

Fiscal year	Selected Banks		
	NABIL	EBL	SCBNL
2065/66	84.66	29.90	149.30
2066/67	92.61	45.57	143.55
2067/68	105.49	54.22	143.92
2068/69	129.21	63.19	175.84
2069/70	137.08	79.22	167.37
Mean ($\in$X)	109.81	54.42	155.996
S.D.	20.332	16.562	13.181
C.V. (%)	18.52	30.43	8.45

Above table 4.37 depicts the earning per share of the selected commercial banks. The mean ($\in$X) of earning per share of NABIL, EBL and SCBNL are 109.81, 54.42 and 155.996 respectively.

The earning per share of the banks is increasing trend over the study period. The highest earning per share of NABIL, EBL and SCBNL are 137.08, 79.22 and 175.84

respectively. This is good for the bank because increment in EPS represents the increment in profit from the owner's point of view. But comparatively, SCBNL has better position than EBL and NABIL due to higher average (mean).

The mean of earning per share of SCBNL is the highest i.e. 155.996 than that of two other banks i.e. EBL and NABIL. Standard deviation of earning per share of NABIL, EBL and SCBNL are 20.332, 16.562 and 13.181 respectively. Coefficient of variation of NABIL is 18.52%, EBL is 30.43% and SCBNL is 8.45%. This ratio can be presented in the following graph.

Figure – 4.30
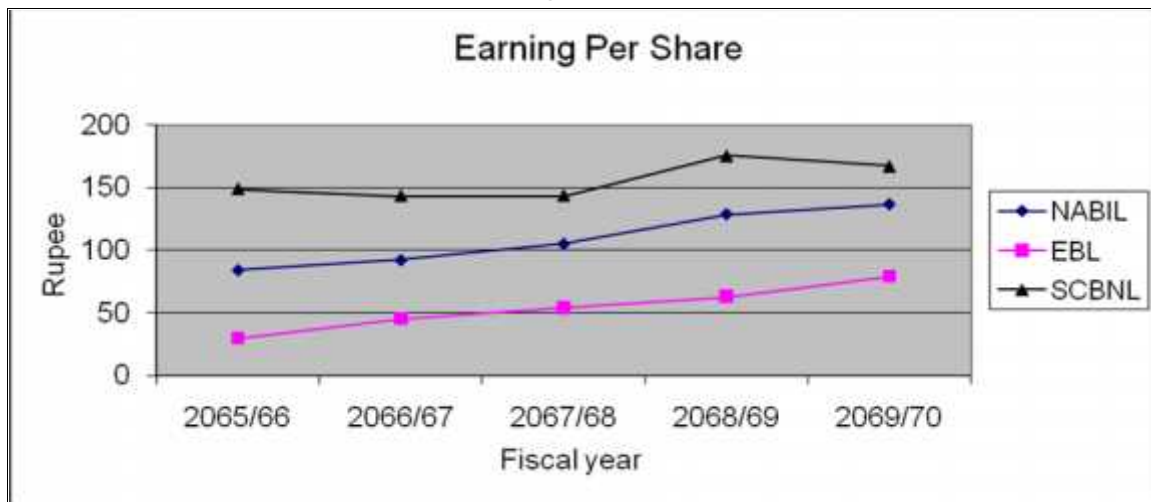
4.4 Co-efficient of Correlation

This analysis interprets and identifies the relationship between two of more variables. In the case of highly correlated, the effects on none variable may have effect on other correlated variable. Under this topic, this study tries to find out relationship between the following variables:

a)   Coefficient of correlation between Total Deposit and Net Profit

b)   Coefficient of correlation between Total Deposit and Total investment

c)   Coefficient of correlation between Total Deposit and Loan & Advances

d)   Coefficient of correlation between Current assets and Current Liabilities

The above analysis tools analyze the relationship between these the relevant variables and helps the bank to make sound policies regarding deposit collection, fund utilization (loan and advances and investment) and profit maximization.

The following formula is used to find out the relationships:

Coefficient of Correlation (r) $= \dfrac{d_1 . d_2}{\sqrt{\phi d_1^{2} . \phi d_2^{2}}}$

Where,

$d_1 = X_1 - \bar{X}_1$

$d_2 = X_2 - \bar{X}_3$

For the purpose of decision-making, interpretation is based on following term:

- When r = 1, there is perfect positive correlation.
- When r = -1, there is perfect negative correlation.
- When r = 0, there is no correlation.
- Nearer the value of r to +1, closer will be the relationship between two variables and nearer the value of r to 0, lesser will be the relationship.

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

Where,

P.E. = Probable error of correlation coefficient

r = Correlation coefficient

n = Number of observations

$$\text{T-test} = \frac{\bar{X}_1 - \bar{X}_2}{S} \Big| \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where, $S = \dfrac{\phi d_1{}^2 + \phi d_2{}^2}{n_1 + n_2 - 2}$

Degree of freedom = $n_1 + n_2 - 2$

Where,

$\bar{X}_1$ = Mean of the X_1

$\bar{X}_2$ = Mean of the X_2

n_1 = No. of the year X_1

n_2 = No. of the year X_2

S = Combined standard deviation

4.4.1 Coefficient of Correlation between Total Deposit and Net Profit

The following table describes the relationship between total deposits and net profit of NABIL, EBL and SCBNL with comparative under five years study period. In the following case, total deposit is independent variables (X_1) and net profit is dependent variables (X_2).

Table 4.41

Correlation Coefficient between Total Deposits and Net Profit

Banks	NABIL	EBL	SCBNL
Coefficient of correlation (r)	0.930	0.991	0.954
P.E.	0.041	0.006	0.027
6 P.E.	0.246	0.036	0.163
t-test	8.856	5.366	18.743

Appendix:

From the above table, it is found that coefficient of correlation between total deposit and net profit of NABIL is 0.930 i.e. high degree of positive correlation between these two variables. Therefore it reveals that relationship between total deposit and net profit is closer to perfect correlation. Similarly, probable error (P.E.) is 0.041 and 6P.E. is 0.246 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between total deposit and net profit is significant. T-test of NABIL is 8.856, which is greater than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is significant.

Likewise in case of EBL, coefficient of correlation between total deposit and net profit is 0.991 i.e. there is high degree of positive correlation between two variables. It means correlation of coefficient between total deposit and net profit of EBL is perfect correlation. Similarly, probable error (P.E.) is 0.006 and 6P.E. is 0.036 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between total deposit and net profit is significant. T-test of EBL is 5.366, which is greater than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is significant.

Similarly, it is found that coefficient of correlation between total deposit and net profit of SCBNL is 0.954 i.e. high degree of positive correlation between these two variables. It also reveals that relationship between total deposit and net profit is closer to perfect correlation. Similarly, probable error (P.E.) is 0.027 and 6P.E. is 0.163 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between total deposit and net profit is significant. T-test of SCBNL is 18.743, which is greater than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is significant.

4.4.2 Coefficient of Correlation between Total Deposit and Investment

The following table describes the relationship between total deposits and investment of NABIL, EBL and SCBNL with comparatively under five years study period. In the

following case, total deposit is independent variables (X_1) and investment is dependent variables (X_2).

Table 4.42

Correlation Coefficient between Total Deposits and Investment

Banks	NABIL	EBL	SCBNL
Coefficient of correlation (r)	0.735	0.956	0.972
P.E.	0.1387	0.0257	0.0167
6 P.E.	0.832	0.154	0.10
t-test	5.347	6.655	4.689

Appendix:

From the above table, it is found that coefficient of correlation between total deposit and investment of NABIL is 0.735 i.e. high degree of positive correlation between these two variables. Therefore it reveals that relationship between total deposit and investment is closer to perfect correlation. Similarly, probable error (P.E.) is 0.1387 and 6P.E. is 0.837 which shows that 'r' is less than 6P.E. Therefore it reveals that relationship between total deposit and investment is insignificant. T-test of NABIL is 5.347, which is greater than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is significant.

Likewise in case of EBL, coefficient of correlation between total deposit and investment is 0.956 i.e. there is high degree of positive correlation between two variables. It means correlation of coefficient between total deposit and investment of EBL is perfect correlation. Similarly, probable error (P.E.) is 0.0257 and 6P.E. is 0.154 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between total deposit and investment is significant. T-test of EBL is 6.665, which is greater than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is significant.

Similarly, it is found that coefficient of correlation between total deposit and investment of SCBNL is 0.972 i.e. high degree of positive correlation between these two variables. It also reveals that relationship between total deposit and investment is perfect correlation. Similarly, probable error (P.E.) is 0.0167 and 6P.E. is 0.10 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between total deposit and investment is significant. T-test of SCBNL is 4.689, which is greater than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is significant.

4.4.3 Coefficient of Correlation between Total Deposit and Loans & Advances

The following table describes the relationship between total deposits and loan and advances of NABIL, EBL and SCBNL with comparatively under five years study period. In the following case, total deposit is independent variables (X_1) and loan and advances is dependent variables (X_2).

Table 4.43

Correlation Coefficient between Total Deposits and Loans & Advances

Banks	NABIL	EBL	SCBNL
Coefficient of correlation (r)	0.931	0.998	0.826
P.E.	0.04	0.0012	0.096
6 P.E.	0.24	0.007	0.575
t-test	2.593	1.150	19.38

Appendix:

From the above table, it is found that coefficient of correlation between total deposit and loans & advances of NABIL is 0.931 i.e. high degree of positive correlation between these two variables. Therefore it reveals that relationship between total deposit and loans & advances is closer to perfect correlation. Similarly, probable error (P.E.) is 0.04 and 6P.E. is 0.24 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between total deposit and loans and advance is significant. T-test of NABIL is 2.593, which is greater than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is significant.

Likewise in case of EBL, coefficient of correlation between total deposit and loans & advances is 0.998 i.e. there is high degree of positive correlation between two variables. It means correlation of coefficient between total deposit and loans & advances of EBL is perfect correlation. Similarly, probable error (P.E.) is 0.0012 and 6P.E. is 0.007 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between total deposit and loans and advance is significant. T-test of EBL is 1.150, which is less than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is no significant.

Similarly, it is found that coefficient of correlation between total deposit and loans & advances of SCBNL is 0.826 i.e. high degree of positive correlation between these two variables. It also reveals that relationship between total deposit and loans &

advances is closer to perfect correlation. Similarly, probable error (P.E.) is 0.096 and 6P.E. is 0.575 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between total deposit and loans and advance is significant. T-test of SCBNL is 19.38, which is greater than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is significant.

4.4.4 Coefficient of Correlation between Current Assets and Current Liabilities

The following table describes the relationship between current assets and current liabilities of NABIL, EBL and SCBNL with comparatively under five years study period. In the following case, current assets are independent variables (X_1) and current liabilities are dependent variables (X_2).

Table 4.44

Correlation Coefficient between current assets and current liabilities

Banks	NABIL	EBL	SCBNL
Coefficient of correlation (r)	0.9998	0.9996	0.9991
P.E.	0.0001	0.00022	0.0011
6 P.E.	0.0006	0.0013	0.0066
t-test	0.472	0.1855	0.519

Appendix:

From the above table, it is found that coefficient of correlation between current assets and current liabilities of NABIL are 0.9998 i.e. high degree of positive correlation between these two variables. Therefore it reveals that relationship between current assets and current liabilities is perfect correlation. Similarly, probable error (P.E.) is 0.0001 and 6P.E. is 0.0006 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between current assets and current liabilities is significant. T-test of NABIL is 0.472, which is less than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is no significant.

Likewise in case of EBL, coefficient of correlation between current assets and current liabilities is 0.9996 i.e. there is high degree of positive correlation between two variables. It means correlation of coefficient between current assets and current liabilities of EBL is perfect correlation. Similarly, probable error (P.E.) is 0.00022 and 6P.E. is 0.0013 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between current assets and current liabilities is significant. T-test of

NABIL is 0.155, which is less than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is no significant. Similarly, it is found that coefficient of correlation between current assets and current liabilities of SCBNL are 0.9991 i.e. high degree of positive correlation between these two variables. It also reveals that relationship between current assets and current liabilities is perfect correlation. Similarly, probable error (P.E.) is 0.0011 and 6P.E. is 0.0066 which shows that 'r' is greater than 6P.E. Therefore it reveals that relationship between current assets and current liabilities is significant. T-test of NABIL is 0.519, which is less than the tabulated value of t for 8 degree of freedom at 5% level of significance for two variables test is 2.306 so that, it is no significant.

CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1   Summary

The development of any country largely depends upon its economic development. Economic development demands transformation of savings or resources into the actual investment. Capital formation is the prerequisite in setting the overall pace of the economic development of a country. It is the financial institution that transfers funds from surplus spending units to deficit units.

Banking sector plays a vital role for the country's economic development. Bank is a resource mobilizing institution, which aspect deposits from various sources, and invests such accumulated resources in the fields of agriculture, trade, commerce, industry, tourism etc. Banks help to mobilize the small saving collectively to huge capital markets. Commercial banks basically help to promote the money market by providing expert managerial skills and by using advanced and often state of the art technologies to serve the customers in an efficient and effective manner.

Among other banking operations, investment operation of commercial banks is very risky one. It is the most important factor from the view point of depositors, shareholders and bank management. For this, commercial banks have to pay due consideration while formulating Investment Policy. A healthy development of any commercial bank depends upon its investment policy. A rational Investment policy attracts both borrowers and lenders, which helps to increase the volume and quality of deposits, loans and investment.

The major source of income of a bank is interest income from loans and investments and fee based income. As loan and advances dominate the asset side of the balance sheet of any bank; similarly earnings from   however, it is very important to be reminded that most of the bank's failures in the world are due to the shrinkage in the value of loans and advances. Hence, loan is known as risky assets and investment operation of commercial banks is very risk of non repayment of loan is known as credit risk of default risk. Performing loans have multiple benefits to the society by helping for the growth of economy while non performing loans erode even existing capital. Considering the importance of lending to the individual banks and also to the society it serve, it is imperative that the bank meticulously plans its credit operations.

Now-a-days, many commercial banks are rapidly opened in Nepal as commercial banks with higher technology and efficient methods in banking sector especially after the political reform of the country. At present, 25 commercial banks are operating in Nepal. But in this study, only three commercial banks has been undertaken i.e. NABIL Bank Ltd., Everest Bank Ltd. and Standard Chartered Bank Nepal Ltd. This study has been completed on the basis of secondary data.

Periodical review and analysis of financial aspects of the banks are very necessary to see the clear financial pictures; investment policy of Nepalese commercial banks in Nepal i.e. NABIL, EBL and SCBNL has been carried out to fulfill this requirement.

Studied of selected banks are introduced. Problems are stated to set the objectives of the study. The objectives are to evaluate the investment policy of NABIL, EBL and SCBNL banks and to identity their strengths and weaknesses. Theoretical framework of ratio analysis, correlation between two variables, its importance and limitations, research methodology and limitations of the study are mentioned.

The findings of liquidity ratios, capital structure ratios, activity ratios and profitability ratios are presented on a comparative basis. Besides, statistical analysis i.e. mean, standard deviation, coefficient of variance of all ratios and correlation of coefficient of the total deposit with net profit, loans and advances, investment and current assets with current liabilities and test of hypothesis made is also done of the selected banks. This analysis gives clear picture of the performance of the bank with regard to its investment operation. All of the information and data are collected from related banks i.e. websites, annual reports.

The operating efficiencies of the selected banks and their abilities to ensure adequate returns to the shareholders have been measured.

5.2   Conclusions

On the basis of entire research study some conclusions have been deduced. This study particularly deals about the financial position of commercial banks in Nepal. The present study is mainly an attempt to give account of comparative study about commercial banks in different aspects such as liquidity position, profitability position, and market position and other related ratios and indicators of the basis of financial statement.

After conducting the investment policy of NABIL, EBL and SCBNL, covering the study period of 2065/66 to 2069/70, the following conclusions can be drawn from the study:

i)   NABL has come out with comparatively better operating efficiency and ability to ensure adequate returns to its shareholders.

ii)   The liquidity positions of commercial banks aren't very poor though the rule of thumb the standard ratio should be 2:1. The banks are unable to maintain the current ratio in accordance with standard.

iii) NABIL has managed to maintain better distribution of assets during 2069/70.

iv)   SCBNL is maintaining adequate liquidity position regarding cash reserve ratio than NABIL and EBL. Too low ratios are also not preferable bank should meet its obligations any time when necessary.

v)   The cash and bank balance to total assets ratio of the banks is initially decreased and then increased. The mean of cash and bank balance to total assets ratio of EBL is the highest i.e. 10.114 than that of NABIL and SCBNL.

vi)   The investment on govt. securities to current assets ratio of the NABIL and EBL is fluctuating but investment on govt. securities to current assets ratio of SCBNL is increased in the first four fiscal years and then decreased.

vii) The debt to total assets ratio of the banks are fluctuating. Comparatively, SCBNL is more at riskier position of debt financing than other two banks because of higher average (mean).

viii) The debt to equity ratio of the NABIL and EBL are decreased till 2067/68 and then increased but the debt to equity ratio of SCBNL is fluctuating. SCBNL is more of risky since its average ratio is higher than other two banks.

ix)   The total debt to share capital ratio of the NABIL and EBL are increased but the total debt to share capital ratio of SCBNL is fluctuating. NABIL is more of risky since its average ratio is higher than other two banks. Claims of creditors are higher than owners, which can prove risky.

x)   The loans and advances to current assets ratio of the NABIL in increased till the fiscal year 2067/68 thereafter decreased but the loans and advances to current assets ratio of EBL and SCBNL is fluctuated.

xii) In profitability and activity ratios, NABIL has bested than EBL and SCBNL.

xiii) HBL has emerged as having a large volume of banking operations, mainly its deposits and lending in the light of its greater deposits and greater credits compared to NABIL.

xiv) The return on loans and advances ratio of the banks is fluctuating over the study period. To make bank's profitability and return from loans and advances is satisfactory; the banks should really make an effort in loans and advances efficiently to generate adequate level of return.

xv) The mean of return on total deposit ratio of NABIL is the highest i.e. 3.172 than that of two other banks i.e. EBL and SCBNL. To make bank's profitability and return from total deposit is satisfactory; the banks should really make an effort in total deposit, its collect efficiently to generate adequate level of return.

xvi) The return on investment ratio of the EBL is fluctuating over the study period. The return on investment ratio of the NABIL is rapidly increased till the fiscal year2067/68 and thereafter smoothly decreased but SCBNL is just opposite of NABIL.

xvii) The earning per share of the banks is increasing trend over the study period. The highest earning per share of NABIL, EBL and SCBNL are 137.08, 79.22 and 175.84 respectively.

xviii) The investment turnover ratio of the SCBNL is decreased till the fiscal year 2068/69 and than increased. The investment turnover ratio of the EBL is fluctuating over the study period but NABIL's ratio is increased till the fiscal year 2067/68 thereafter decreased.

xix) The total assets turnover ratio of the banks is decreasing with fluctuated. The mean of total assets turnover ratio of NABIL is the highest i.e. 0.084 than that of the EBL and SCBNL.

5.3 Recommendations

On the basis of major finding of the study, some important recommendations have been forwarded. Although these banks have more than 12 years of commercial experiences in the Nepalese commercial banking sector, with a competent managerial team, some weaknesses have come into light through the study. The sampled banks may use it as a remedial measure. The recommendations have been the following.

i)   The banks, especially the SCBNL and EBL has to maintain adequate cash & bank balance to total deposits ratio, as prescribed by NRB, which is 5% of total deposits.

ii)   EBL is suggested to improve its profitability position, and to improve its overall efficiency and returns to its shareholders.

iii)   The debt to equity ratio of the NABIL and EBL are decreased till 2067/68 and than increased but the debt to equity ratio of SCBNL is fluctuating. The highest debt to equity ratio of NABIL is 12.25% and lowest ratio is 936.80% in the fiscal year 2069/70 and 2067/68 respectively such fluctuations should be controlled.

iv)   Although the loans and advances to total deposit ratio of the banks is fluctuating over the study period, the banks performance have good, don't loose the level.

v)   NABIL has been suggested to improve its deposits and credits to increase its volume of banking operations.

vi)   The banks are suggested to improve its deposits and credits to increase its volume of banking operations.

vii)   The banks are suggested to review their overall capital structures and investment portfolios to make better mix in capital structure as well as investment portfolio.

viii)   The banks should finance superior quality of assets for greater profits, especially for SCBNL.

ix)   The studied banks are suggested to invest in deprived sector as directed by NRB in order to contribute to the overall development of the country.

x)   The banks should maintain positive relationship between loans and advances and deposits in coming years also, to maximize benefits.

xi)   Since the economy of the country has become weaker since the last decade, the studied banks are advised to concentrate more on risk free securities and low risk loans.

xii)   Last, but not the least the banks should keep in peace with the changing banking technologies, improve organizational structure, provide quality services to its customers and actively participate in social welfare programmes. Organizational culture that acquires, develops, utilizes and maintains the employees in a high morale is preferred.

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Current Ratio of Selected Banks

(Rs. in million)

FY	NABIL			EBL			SCBNL		
	CA	CL	Ratio	CA	CL	Ratio	CA	CL	Ratio
2065/66	16310.71	15248.43	1.07	7836.89	7439.4	1.05	20719.26	19542.06	1.06
2066/67	16407.36	15263.81	1.07	9420.97	8928.2	1.06	23505.83	22146.32	1.06
2067/68	16825.09	15528.69	1.08	11629.4	11022.51	1.06	21822.17	20311.17	1.07
2068/69	22010.88	20454.98	1.08	15155.29	14696.5	1.03	25666.05	24013.21	1.07
2069/70	26966.5	25196.34	1.07	20982.79	19931.1	1.05	28471.1	26480.34	1.08

Sample Calculation of Mean ($\in X$), Standard Deviation ($\exists$) and Coefficient of Variation (C.V.) is presented below:

Calculation of Mean($\in X$), S.D. ($\exists$) and C.V. of Current ratio:

For NABIL;

Fiscal year	Current Ratio (X)	d = (X-1.074)	d^2
2065/66	1.07	-0.004	0.000016
2066/67	1.07	-0.004	0.000016
2067/68	1.08	0.006	0.000036
2068/69	1.08	0.006	0.000036
2069/70	1.07	-0.004	0.000016
Total	5.37	0	0.00012

Here,

$$\text{Mean } (\in X) = \frac{X}{n} = \frac{5.37}{5} = 1.074$$

Where,

n = Number of Year

X = Sum of X series

$$\text{Standard Deviation } (\exists) = \sqrt{\frac{\phi d^2}{n}} = \sqrt{\frac{0.00012}{5}} = \sqrt{0.000024} = 0.0049$$

$$\text{Coefficient of Variance (CV)} = \frac{\exists}{\in X} \mid 100 = \frac{0.0049}{1.074} \mid 100 = 0.456\%$$

For EBL;

Fiscal year	Current Ratio (X)	d= (X – 1.05)	d²
2065/66	1.05	0	
2066/67	1.06	0.01	0.0001
2067/68	1.06	0.01	0.0001
2068/69	1.03	-0.02	0.0004
2069/70	1.05	0	0
Total	5.25	0	0.0006

$$\text{Mean } (\bar{X}) = \frac{X}{n} = \frac{5.25}{5} = 1.05$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\phi d^2}{n}} = \sqrt{\frac{0.0006}{5}} = \sqrt{0.00012} = 0.011$$

$$\text{Coefficient of Variance (CV)} = \frac{\sigma}{\bar{X}} \mid 100 = \frac{0.011}{1.05} \mid 100 = 1.048\%$$

For SCBNL;

Fiscal year	Current Ratio (X)	d = (X – 1.068)	d²
2065/66	1.06	-0.008	0.000064
2066/67	1.06	-0.008	0.000064
2067/68	1.07	0.002	0.000004
2068/69	1.07	0.002	0.000004
2069/70	1.08	0.012	0.000144
Total	5.34	0	0.000424

$$\text{Mean } (\bar{X}) = \frac{X}{n} = \frac{5.34}{5} = 1.068$$

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\phi d^2}{n}} = \sqrt{\frac{0.000424}{5}} = \sqrt{0.0000848} = 0.0092$$

$$\text{Coefficient of Variance (CV)} = \frac{\sigma}{\bar{X}} \mid 100 = \frac{0.0092}{1.068} \mid 100 = 0.862\%$$

Appendix - 2
Cash Reserve Ratio of Selected Banks (C&B to Total Deposit)

(Rs. in million)

		NABIL			EBL			SCBNL	
FY	C&B	Total Deposit	Ratio	C&B	Total Deposit	Ratio	C&B	Total Deposit	Ratio
2065/66	1144.76	12780.1	8.96	1139.6	6695	17.02	1512.3	18755.63	8.06
2066/67	970.48	15838.9	6.13	631.8	8063.9	7.83	2023.16	21161.44	9.56
2067/68	559.38	14586.61	3.83	1050	10097.7	10.40	1111.12	19335.1	5.75
2068/69	630.24	19347.4	3.26	1552.9	13802.4	11.25	1276.24	23061.03	5.53
2069/70	1399.82	23342.29	6.00	2391.4	18186.2	13.15	2021.02	24647.02	8.20

Appendix - 3
Cash & Bank Bal. to Total Assets Ratio of Selected Banks

		NABIL			EBL			SCBNL	
FY	C&B	Total Assets	Ratio	C&B	Total Assets	Ratio	C&B	Total Assets	Ratio
2065/66	1144.76	16562.62	6.91	1139.6	8052.2	14.15	1512.3	20910.97	7.23
2066/67	970.48	16745.49	5.80	631.8	9608.6	6.58	2023.16	23642.06	8.56
2067/68	559.38	17186.33	3.25	1050	11732.5	8.95	1111.12	21893.58	5.08
2068/69	630.24	22329.97	2.82	1552.9	15959.3	9.73	1276.24	25767.35	4.95
2069/70	1399.82	27253.39	5.14	2391.4	21432.6	11.16	2021.02	28596.69	7.07

Appendix - 4
Investment on Govt. Securities to Current Assets Ratio (in %)

		NABIL			EBL			SCBNL	
FY	Invt. On Govt. Security	Current Assets	Ratio	Invt. On Govt. Security	Current Assets	Ratio	Invt. On Govt. Security	Current Assets	Ratio
2065/66	3588.77	16310.71	22.00	1599.3	7836.89	20.41	6722.8	20719.26	32.45
2066/67	3672.63	16407.36	22.38	2466.4	9420.97	26.18	7948.22	23505.83	33.81
2067/68	2413.94	16825.09	14.35	2100.3	11629.4	18.06	7203.07	21822.17	33.01
2068/69	2301.46	22010.88	10.46	3322.4	15155.29	21.92	8644.86	25666.05	33.68
2069/70	4808.35	26966.5	17.83	3614.5	20982.79	17.23	7107.94	28471.1	24.97

Appendix - 5
Debt to Total Assets Ratio (in %)

	NABIL			EBL			SCBNL		
FY	Long-term Debt	Total Assets	Ratio	Long-term Debt	Total Assets	Ratio	Long-term Debt	Total Assets	Ratio
2065/66	15248.43	16562.62	92.07	7438.3	8052.2	92.38	19542.06	20910.97	93.45
2066/67	15263.81	16745.49	91.15	8846.6	9608.6	92.07	22146.32	23642.06	93.67
2067/68	15528.69	17186.33	90.35	10734.5	11732.5	91.49	20311.17	21893.58	92.77
2068/69	20454.98	22329.97	91.60	14761.3	15959.3	92.49	24013.21	25767.35	93.19
2069/70	25196.34	27253.39	92.45	19918	21432.6	92.93	26480.34	28596.69	92.60

Appendix - 6
Debt to Equity Ratio (in %)

	NABIL			EBL			SCBNL		
FY	Long-term Debt	Shareholder's Equity	Ratio	Long-term Debt	Shareholder's Equity	Ratio	Long-term Debt	Shareholder's Equity	Ratio
2065/66	15248.43	1314.19	1160.29	7438.3	613.9	1211.65	19542.06	1368.91	1427.56
2066/67	15263.81	1481.68	1030.17	8846.6	762	1160.97	22146.32	1495.74	1480.63
2067/68	15528.69	1657.64	936.80	10734.5	998	1075.60	20311.17	1582.41	1283.56
2068/69	20454.98	1874.99	1090.94	14761.3	1198	1232.16	24013.21	1754.14	1368.94
2069/70	25196.34	2057.05	1224.88	19918	1514.6	1315.07	26480.34	2116.35	1251.23

Appendix - 7
Total Debt to Capital Employed Ratio (in %)

	NABIL			EBL			SCBNL		
FY	Total Debt	Capital Employed	Ratio	Total Debt	Capital Employed	Ratio	Total Debt	Capital Employed	Ratio
2065/66	15248.43	1314.19	1160.29	7438.3	507.09	1466.86	19542.06	1368.91	1427.56
2066/67	15263.81	1481.68	1030.17	8846.6	611.17	1447.49	22146.32	1495.74	1480.63
2067/68	15528.69	1657.63	936.80	10734.5	740.99	1448.67	20311.17	1582.41	1283.56
2068/69	20454.98	1874.99	1090.94	14761.3	610.89	2416.36	24013.21	1754.14	1368.94
2069/70	25196.34	2057.06	1224.87	19918	1221.79	1630.23	26480.34	2116.35	1251.23

Appendix – 8
Total Debt to Share Capital Ratio (in %)

	NABIL			EBL			SCBNL		
FY	Total Debt	Share Capital	Ratio	Total Debt	Share Capital	Ratio	Total Debt	Share Capital	Ratio
2065/66	15248.43	491.65	3101.48	7438.3	455	1634.79	19542.06	339.5	5756.13
2066/67	15263.81	491.65	3104.61	8846.6	455	1944.31	22146.32	374.64	5911.36
2067/68	15528.69	491.65	3158.48	10734.5	455	2359.23	20311.17	374.64	5421.52
2068/69	20454.98	491.65	4160.48	14761.3	518	2849.67	24013.21	374.64	6409.68

| 2069/70 | 25196.34 | 491.65 | 5124.85 | 19918 | 518 | 3845.17 | 26480.34 | 413.25 | 6407.83 |

Appendix - 9
Loan and Advances to Current Assets Ratio (in %)

		NABIL			EBL			SCBNL	
FY	Loans & Adv.	Current Assets	Ratio	Loans & Adv.	Current Assets	Ratio	Loans & Adv.	Current Assets	Ratio
2065/66	7808.11	16310.71	47.87	4908.5	7836.89	62.63	5695.82	20719.26	27.49
2066/67	8189.99	16407.36	49.92	5884.1	9420.97	62.46	6410.24	23505.83	27.27
2067/68	10586.17	16825.09	62.92	7618.7	11629.4	65.51	8143.21	21822.17	37.32
2068/69	12922.54	22010.88	58.71	9801.3	15155.29	64.67	8935.42	25666.05	34.81
2069/70	15545.78	26966.5	57.65	13664.4	20982.79	65.12	10502.64	28471.1	36.89

Appendix - 10
Fixed Assets Turnover Ratio (in times)

		NABIL			EBL			SCBNL	
FY	Total Income	Fixed Assets	Ratio	Total Income	Fixed Assets	Ratio	Total Income	Fixed Assets	Ratio
2065/66	1427.45	251.91	5.67	635.3	109.6	5.80	1504.02	191.71	7.85
2066/67	1429.05	338.13	4.23	785.1	118.4	6.63	1584	136.23	11.63
2067/68	1510.68	361.23	4.18	859	134.1	6.41	1576.27	71.41	22.07
2068/69	1717.53	319.09	5.38	1066.5	152.1	7.01	1722.88	101.3	17.01
2069/70	2041.15	286.9	7.11	1370.7	170.1	8.06	1980.55	125.59	15.77

Appendix - 11
Total Assets Turnover Ratio (in times)

		NABIL			EBL			SCBNL	
FY	Total Income	Total Assets	Ratio	Total Income	Total Assets	Ratio	Total Income	Total Assets	Ratio
2065/66	1427.45	16562.62	0.09	635.3	8052.2	0.08	1504.02	20910.97	0.07
2066/67	1429.05	16745.49	0.09	785.1	9608.6	0.08	1584	23642.06	0.07
2067/68	1510.68	17186.33	0.09	859	11732.5	0.07	1576.27	21893.58	0.07
2068/69	1717.53	22329.97	0.08	1066.5	15959.3	0.07	1722.88	25767.35	0.07
2069/70	2041.15	27253.39	0.07	1370.7	21432.6	0.06	1980.55	28596.69	0.07

Appendix - 12
Capital Employed Turnover Ratio (in times)

		NABIL			EBL			SCBNL	
FY	Total Income	Capital Employed	Ratio	Total Income	Capital Employed	Ratio	Total Income	Capital Employed	Ratio
2065/66	1427.45	1314.19	1.09	635.3	507.09	1.25	1504.02	1368.91	1.10

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2066/67	1429.05	1481.68	0.96	785.1	611.17	1.28	1584	1495.74	1.06
2067/68	1510.68	1657.63	0.91	859	740.99	1.16	1576.27	1582.41	1.00
2068/69	1717.53	1874.99	0.92	1066.5	610.89	1.75	1722.88	1754.14	0.98
2069/70	2041.15	2057.06	0.99	1370.7	1221.79	1.12	1980.55	2116.35	0.94

Appendix - 13

Investment Turnover Ratio (in times)

		NABIL			EBL			SCBNL	
FY	Total Income	Investment	Ratio	Total Income	Investment	Ratio	Total Income	Investment	Ratio
2065/66	1427.45	6545.05	0.22	635.3	1654	0.38	1504.02	10357.7	0.15
2066/67	1429.05	5835.95	0.24	785.1	2535.7	0.31	1584	11360.33	0.14
2067/68	1510.68	4267.23	0.35	859	2128.9	0.40	1576.27	9702.55	0.16
2068/69	1717.53	6178.53	0.28	1066.5	4201.3	0.25	1722.88	12838.55	0.13
2069/70	2041.15	8945.31	0.23	1370.7	4985.1	0.27	1980.55	13553.23	0.15

Appendix – 14

Cash & Bank Balance Turnover Ratio (in times)

		NABIL			EBL			SCBNL	
FY	Total Income	Cash & Bank	Ratio	Total Income	Cash & Bank	Ratio	Total Income	Cash & Bank	Ratio
2065/66	1427.45	1144.76	1.25	635.3	1139.6	0.56	1504.02	1512.3	0.99
2066/67	1429.05	970.48	1.47	785.1	631.8	1.24	1584	2023.16	0.78
2067/68	1510.68	1111.12	1.36	859	1050	0.82	1576.27	1111.12	1.42
2068/69	1717.53	630.24	2.73	1066.5	1552.9	0.69	1722.88	1276.24	1.35
2069/70	2041.15	1399.82	1.46	1370.7	2391.4	0.57	1980.55	2021.02	0.98

Appendix - 15

Loan and Advances to Total Deposit Ratio (in %)

		NABIL			EBL			SCBNL	
FY	Loans & Adv.	Total Deposit	Ratio	Loans & Adv.	Total Deposit	Ratio	Loans & Adv.	Total Deposit	Ratio
2065/66	7808.11	12780.1	61.10	4908.5	6695	73.32	5695.82	18755.63	30.37
2066/67	8189.99	15838.9	51.71	5884.1	8063.9	72.97	6410.24	21161.44	30.29
2067/68	10586.17	14586.61	72.57	7618.7	10097.7	75.45	8143.21	19335.1	42.12
2068/69	12922.54	19347.4	66.79	9801.3	13802.4	71.01	8935.42	23061.03	38.75
2069/70	15545.78	23342.29	66.60	13664.4	18186.2	75.14	10502.64	24647.02	42.61

Appendix - 16
Investment to Total Deposit Ratio (in %)

FY	NABIL			EBL			SCBNL		
	Investment	Total Deposit	Ratio	Investment	Total Deposit	Ratio	Investment	Total Deposit	Ratio
2065/66	6545.05	12780.1	51.21	1654	6695	24.71	10357.7	18755.63	55.22
2066/67	5835.95	15838.9	36.85	2535.7	8063.9	31.45	11360.33	21161.44	53.68
2067/68	4267.23	14586.61	29.25	2128.9	10097.7	21.08	9702.55	19335.1	50.18
2068/69	6178.53	19347.4	31.93	4201.3	13802.4	30.44	12838.55	23061.03	55.67
2069/70	8945.31	23342.29	38.32	4985.1	18186.2	27.41	13553.23	24647.02	54.99

Appendix - 17
Loan and Advances to Total Assets Ratio (in %)

FY	NABIL			EBL			SCBNL		
	Loans & Adv.	Total Assets	Ratio	Loans & Adv.	Total Assets	Ratio	Loans & Adv.	Total Assets	Ratio
2065/66	7808.11	16562.62	47.14	4908.5	8052.2	60.96	5695.82	20910.97	27.24
2066/67	8189.99	16745.49	48.91	5884.1	9608.6	61.24	6410.24	23642.06	27.11
2067/68	10586.17	17186.33	61.60	7618.7	11732.5	64.94	8143.21	21893.58	37.19
2068/69	12922.54	22329.97	57.87	9801.3	15959.3	61.41	8935.42	25767.35	34.68
2069/70	15545.78	27253.39	57.04	13664.4	21432.6	63.76	10502.64	28596.69	36.73

Appendix - 18
Return on Loans & Advances (in %)

FY	NABIL			EBL			SCBNL		
	NPAT	Loans & Adv.	Ratio	NPAT	Loans & Adv.	Ratio	NPAT	Loans & Adv.	Ratio
2065/66	416.24	7808.11	5.33	94.18	4908.5	1.92	506.93	5695.82	8.90
2066/67	455.31	8189.99	5.56	143.56	5884.1	2.44	537.8	6410.24	8.39
2067/68	518.64	10586.17	4.90	170.8	7618.7	2.24	539.2	8143.21	6.62
2068/69	635.26	12922.54	4.92	238.86	9801.3	2.44	658.76	8935.42	7.37
2069/70	673.96	15545.78	4.34	299.45	13664.4	2.19	691.67	10502.64	6.59

Appendix - 19
Return on Total Weighted Risk Assets (in %)

FY	NABIL			EBL			SCBNL		
	NPAT	Total WRA	Ratio	NPAT	Total WRA	Ratio	NPAT	Total WRA	Ratio
2065/66	416.24	11153.13	3.73	94.18	5707	1.65	506.93	9546.76	5.31
2066/67	455.31	11872.01	3.84	143.56	6924.8	2.07	537.8	10023.09	5.37
2067/68	518.64	22402.01	2.32	170.8	9195.6	1.86	539.2	10497.53	5.14
2068/69	635.26	16976.37	3.74	238.86	11273.3	2.12	658.76	12369.49	5.33

| 2069/70 | 673.96 | 19166.77 | 3.52 | 299.45 | 14976.7 | 2.00 | 691.67 | 14168.42 | 4.88 |

Appendix - 20
Return on Total Deposit (in %)

		NABIL			EBL			SCBNL	
FY	NPAT	Total Deposit	Ratio	NPAT	Total Deposit	Ratio	NPAT	Total Deposit	Ratio
2065/66	416.24	12780.1	3.26	94.18	6695	1.41	506.93	18755.63	2.70
2066/67	455.31	15838.9	2.87	143.56	8063.9	1.78	537.8	21161.44	2.54
2067/68	518.64	14586.61	3.56	170.8	10097.7	1.69	539.2	19335.1	2.79
2068/69	635.26	19347.4	3.28	238.86	13802.4	1.73	658.76	23061.03	2.86
2069/70	673.96	23342.29	2.89	299.45	18186.2	1.65	691.67	24647.02	2.81

Appendix – 21
Return on Total Assets (in %)

		NABIL			EBL			SCBNL	
FY	NPAT	Total Assets	Ratio	NPAT	Total Assets	Ratio	NPAT	Total Assets	Ratio
2065/66	416.24	16562.62	2.51	94.18	8052.2	1.17	506.93	20910.97	2.42
2066/67	455.31	16745.49	2.72	143.56	9608.6	1.49	537.8	23642.06	2.27
2067/68	518.64	17186.33	3.02	170.8	11732.5	1.46	539.2	21893.58	2.46
2068/69	635.26	22329.97	2.84	238.86	15959.3	1.50	658.76	25767.35	2.56
2069/70	673.96	27253.39	2.47	299.45	21432.6	1.40	691.67	28596.69	2.42

Appendix - 22
Return on Shareholder's Equity (in %)

		NABIL			EBL			SCBNL	
FY	NPAT	Shareholder's Equity	Ratio	NPAT	Shareholder's Equity	Ratio	NPAT	Shareholder's Equity	Ratio
2065/66	416.24	1314.19	31.67	94.18	613.9	15.34	506.93	1368.91	37.03
2066/67	455.31	1481.68	30.73	143.56	762	18.84	537.8	1495.74	35.96
2067/68	518.64	1657.64	31.29	170.8	998	17.11	539.2	1582.41	34.07
2068/69	635.26	1874.99	33.88	238.86	1198	19.94	658.76	1754.14	37.55
2069/70	673.96	2057.05	32.76	299.45	1514.6	19.77	691.67	2116.35	32.68

Appendix – 23
Return on Investment (in %)

		NABIL			EBL			SCBNL	
FY	NPAT	Investment	Ratio	NPAT	Investment	Ratio	NPAT	Investment	Ratio
2065/66	416.24	6545.05	6.36	94.18	1654	5.69	506.93	10357.7	4.89
2066/67	455.31	5835.95	7.80	143.56	2535.7	5.66	537.8	11360.33	4.73
2067/68	518.64	4267.23	12.15	170.8	2128.9	8.02	539.2	9702.55	5.56

2068/69	635.26	6178.53	10.28	238.86	4201.3	5.69	658.76	12838.55	5.13
2069/70	673.96	8945.31	7.53	299.45	4985.1	6.01	691.67	13553.23	5.10

Appendix - 24
Return on Capital Employed (in %)

		NABIL			EBL			SCBNL	
FY	NPAT	Capital Employed	Ratio	NPAT	Capital Employed	Ratio	NPAT	Capital Employed	Ratio
2065/66	416.24	1314.19	31.67	94.18	507.09	18.57	506.93	1368.91	37.03
2066/67	455.31	1481.68	30.73	143.56	611.17	23.49	537.8	1495.74	35.96
2067/68	518.64	1657.63	31.29	170.8	740.99	23.05	539.2	1582.41	34.07
2068/69	635.26	1874.99	33.88	238.86	610.89	39.10	658.76	1754.14	37.55
2069/70	673.96	2057.06	32.76	299.45	1221.79	24.51	691.67	2116.35	32.68

Appendix - 25
Earning Per Share (in Rs.)

		NABIL			EBL			SCBNL	
FY	NPAT	No. of Equity share	Ratio	NPAT	No. of Equity share	Ratio	NPAT	No. of Equity share	Ratio
2065/66	416.24	4.916544	84.66	94.18	3.15	29.90	506.93	3.395488	149.30
2066/67	455.31	4.916544	92.61	143.56	3.15	45.57	537.8	3.746404	143.55
2067/68	518.64	4.916544	105.49	170.8	3.15	54.22	539.2	3.746404	143.92
2068/69	635.26	4.916544	129.21	238.86	3.78	63.19	658.76	3.746404	175.84
2069/70	673.96	4.916544	137.08	299.45	3.78	79.22	691.67	4.132548	167.37

Annex - I

Calculation of Correlation of coefficient between Total Deposits and Net Profit of NABIL

(Rs. in million)

Year	Total Deposit (X_1)	Net Profit (X_2)	$d_1 = X_1 - 17179.06$	$d_2 = X_2 - 539.88$	$d_1.d_2$	d_1^2	d_2^2
2065/66	12780.10	416.24	-4398.96	-123.64	543896.21	19350849.08	15287.34
2066/67	15838.90	455.31	-1340.16	-84.57	113340.01	1796028.83	7152.42
2067/68	14586.61	518.64	-2592.45	-21.24	55068.82	6720797.00	451.22
2068/69	19347.40	635.26	2168.34	95.38	206811.93	4701698.36	9096.96
2069/70	23342.29	673.96	6163.23	134.07	826353.55	37985404.03	17976.91

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	$\phi X_1=$ 85895.30	$\phi X_2=$ 2699.41			$\phi d_1 d_2$ = 1745470.53	ϕd_1^2 = 70554777.30	$\phi d_2^2=$ 49964.86

Here,

  n   = Number of years

  X_1 = Total deposit

  X_2 = Net profit

  $\bar{X}_1$ = Mean of total deposit

  $\bar{X}_2$ = Mean of net profit

$$\bar{X}_1 = \frac{\phi X_1}{n} = \frac{85895.30}{5} = 17179.06$$

$$\bar{X}_2 = \frac{\phi X_2}{n} = \frac{2699.41}{5} = 539.88$$

$$r = \frac{d_1 . d_2}{\sqrt{\phi d_1^2 . \phi d_2^2}} = \frac{1745470.53}{\sqrt{70554777.30 \times 49964.86}} = \frac{1745470.53}{1877567.46} = 0.93$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.93^2)}{\sqrt{5}} = 0.041$$

6P.E. = 6×0.041 = 0.246

r>6P.E. we conclude that r is highly significant

T-test of Total Deposits and Net Profit of NABIL

$\bar{X}_1$ =17179.06 $\bar{X}_2$ =539.88;

S=2970.79; n_1=5

n_2=5

$$S = \sqrt{\frac{\phi d_1^2 + \phi d_2^2}{n_1+n_2-2}} = \sqrt{\frac{49964.86 + 70554777.30}{5 + 5 - 2}} = 2970.79$$

Test Statistic

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \mid \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

  $\bar{X}_1$ = Mean of the total deposits

  $\bar{X}_2$ = Mean of the net profit

  n_1 = No. of the year of total deposits

  n_2 = No. of the year of net profit

  S   = Combined standard deviation

$$t = \frac{17179.06 - 539.88}{2970.79} \Big| \sqrt{\frac{(5 \mid 5)}{(5+5)}} = 8.856$$

Annex - II

Calculation of Correlation of coefficient between Total Deposits and Net Profit of EBL

(Rs. in million)

Year	Total Deposit (X_1)	Net Profit (X_2)	$d_1 = X_1 - 11369.04$	$d_2 = X_2 - 189.37$	$d_1.d_2$	d_1^2	d_2^2
2065/66	6695	94.18	-4674.04	-95.19	444921.87	21846649.92	9061.14
2066/67	8063.9	143.56	-3305.14	-45.81	151408.46	10923950.42	2098.56
2067/68	10097.7	170.8	-1271.34	-18.57	23608.78	1616305.40	344.84
2068/69	13802.4	238.86	2433.36	49.49	120426.97	5921240.89	2449.26
2069/70	18186.2	299.45	6817.16	110.08	750432.97	46473670.47	12117.61
	$\phi X_2 = 56845.2$	$\phi X_1 = 946.85$			$\phi d_1 d_2 = 1490799.07$	$\phi d_1^2 = 86781817.09$	$\phi d_2^2 = 26071.40$

Here,

n = Number of years

X_1 = Total deposit

X_2 = Net profit

$\bar{X}_1$ = Mean of total deposit

$\bar{X}_2$ = Mean of net profit

$$\bar{X}_1 = \frac{\phi X_1}{n} = \frac{56845.20}{5} = 11369.04$$

$$\bar{X}_2 = \frac{\phi X_2}{n} = \frac{946.85}{5} = 189.37$$

$$r = \frac{d_1.d_2}{\sqrt{\phi d_1^2.\phi d_2^2}} = \frac{1490799.07}{\sqrt{86781817.09 \times 26071.40}} = \frac{1490799.07}{1504168.70} = 0.991$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.99^2)}{\sqrt{5}} = 0.006$$

6P.E. = 6×0.006 = 0.036

r>6P.E. we conclude that r is highly significant

T-test of Total Deposits and Net Profit of EBL

$\bar{X}_1$ = 11369.04; $\bar{X}_2$ = 189.37;

S = 3294.08; n_1 = 5

$n_2 = 5$

$$S = \sqrt{\frac{\phi d_1{}^2 + \phi d_2{}^2}{n_1 + n_2 - 2}} = \sqrt{\frac{86781817.09 + 26071.40}{5 + 5 - 2}} = 3294.08$$

Test Statistic

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S} \Bigg/ \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\overline{X}_1$ = Mean of the total deposits

$\overline{X}_2$ = Mean of the net profit

n_1 = No. of the year of total deposits

n_2 = No. of the year of net profit

S = Combined standard deviation

$$t = \frac{11369.04 - 189.37}{3294.08} \Bigg/ \sqrt{\frac{(5 \times 5)}{(5 + 5)}} = 5.366$$

Annex - III

Calculation of Correlation of coefficient between Total Deposits and Net Profit of SCBNL

(Rs. in million)

Year	Total Deposit (X₁)	Net Profit (X₂)	d₁ = X₁ - 12392.04	d₂ = X₂-586.87	d₁.d₂	d₁²	d₂²
2065/66	18755.63	506.93	-2636.41	-79.942	210760.21	6950678.78	6390.72
2066/67	21161.44	537.8	-230.60	-49.072	11316.20	53178.20	2408.06
2067/68	19335.1	539.2	-2056.94	-47.672	98058.63	4231018.62	2272.62
2068/69	23061.03	658.76	1668.99	71.888	119980.06	2785514.27	5167.88
2069/70	24647.02	691.67	3254.98	104.798	341114.97	10594868.76	10982.62
	φX₁= 106960.20	φX₂= 2934.36			φd₁d₂ = 781230.08	φd₁² = 24615258.63	φd₂²= 27221.91

Here,

n = Number of years

X_1 = Total deposit

X_2 = Net profit

$\overline{X}_1$ = Mean of total deposit

$\overline{X}_2$ = Mean of net profit

$$\overline{X}_1 = \frac{\phi X_1}{n} = \frac{106960.20}{5} = 21392.04$$

$$\bar{X}_2 = \frac{\phi X_2}{n} = \frac{2934.36}{5} = 586.87$$

$$r = \frac{d_1.d_2}{\sqrt{\phi d_1^2.\phi d_2^2}} = \frac{781230.08}{\sqrt{24615258.63 \times 27221.91}} = \frac{781230.08}{818580.70} = 0.954$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.954^2)}{\sqrt{5}} = 0.027$$

$6P.E. = 6 \times 0.027 = 0.163$

$r > 6P.E.$ we conclude that r is highly significant

T-test of Total Deposits and Net Profit of SCBNL

$\bar{X}_1 = 21392.04; \quad \bar{X}_2 = 586.87;$

$S = 1755.08; \quad n_1 = 5$

$n_2 = 5$

$$S = \sqrt{\frac{\phi d_1^2 + \phi d_2^2}{n_1+n_2-2}} = \sqrt{\frac{24615258.63 + 27221.91}{5 + 5 - 2}} = 1755.08$$

Test Statistic

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \bigg/ \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\bar{X}_1$ = Mean of the total deposits

$\bar{X}_2$ = Mean of the net profit

n_1 = No. of the year of total deposits

n_2 = No. of the year of net profit

S = Combined standard deviation

$$t = \frac{21392.04 - 586.87}{1755.08} \bigg/ \sqrt{\frac{(5 \mid 5)}{(5 + 5)}} = 18.743$$

Annex - IV

Calculation of Correlation of coefficient between Total Deposits and Loans & Advances of NABIL

(Rs. in million)

Year	Total Deposit (X_1)	Loans & Advances (X_2)	$d_1 = X_1 - 17179.06$	$d_2 = X_2 - 11010.52$	$d_1.d_2$	d_1^2	d_2^2
2065/66	12780.10	7808.11	-4398.96	-3202.41	14087273.49	19350849.08	10255429.80
2066/67	15838.90	8189.99	-1340.16	-2820.53	3779961.48	1796028.83	7955389.48

					$\phi d_1 d_2$	ϕd_1^2	ϕd_2^2
2067/68	14586.61	10586.17	-2592.45	-424.35	1100106.16	6720797.00	180072.92
2068/69	19347.40	12922.54	2168.34	1912.02	4145909.45	4701698.36	3655820.48
2069/70	23342.29	15545.78	6163.23	4535.26	27951850.49	37985404.03	20568583.30
	$\phi X_1=$ 85895.30	$\phi X_2=$ 55052.59			$\phi d_1 d_2$ = 51065101.07	ϕd_1^2 = 70554777.3	$\phi d_2^2=$ 42615295.98

Here,

n = Number of Year

X_1 = Total deposit

X_2 = Loans and advances

$\bar{X}_1$ = Mean of total deposit

$\bar{X}_2$ = Mean of loans and advances

$$\bar{X}_1 = \frac{\phi X_1}{n} = \frac{85895.30}{5} = 17179.06$$

$$\bar{X}_2 = \frac{\phi X_2}{n} = \frac{55052.59}{5} = 11010.52$$

$$r = \frac{d_1 . d_2}{\sqrt{\phi d_1^2 . \phi d_2^2}} = \frac{51065101.07}{\sqrt{70554777.30 \times 42615295.96}} = \frac{51065101.07}{54833499.94} = 0.931$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.931^2)}{\sqrt{5}} = 0.04$$

6P.E. = 6×0.04 = 0.241

r>6P.E. we conclude that r is highly significant

T-test of Total Deposits and Loans & Advances of NABIL

$\bar{X}_1$ = 17179.06 $\bar{X}_2$ = 11010.52;

S= 3761.15; n_1=5

n_2=5

$$S = \sqrt{\frac{\phi d_1^2 + \phi d_2^2}{n_1+n_2-2}} = \sqrt{\frac{70554777.30 + 42615295.96}{5 + 5 - 2}} = 3761.15$$

Test Statistic

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \bigg/ \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\bar{X}_1$ = Mean of the total deposits

$\bar{X}_2$ = Mean of the net profit

n_1 = No. of the year of total deposits

n_2 = No. of the year of net profit

S   = Combined standard deviation

$$t = \frac{17179.06 - 11010.52}{3761.15} \Big/ \sqrt{\frac{(5 \mid 5)}{(5+5)}} = 2.593$$

Annex - V

Calculation of Correlation of coefficient between Total Deposits and Loans & Advances of EBL

(Rs. in million)

Year	Total Deposit (X_1)	Loans & Advances (X_2)	$d_1 = X_1 - 11369.04$	$d_2 = X_2 - 8375.4$	$d_1.d_2$	d_1^2	d_2^2
2065/66	6695.00	4908.50	-4674.04	-3466.90	16204429.28	21846649.92	12019395.61
2066/67	8063.90	5884.10	-3305.14	-2491.30	8234095.28	10923950.42	6206575.69
2067/68	10097.70	7618.70	-1271.34	-756.70	962022.98	1616305.40	572594.89
2068/69	13802.40	9801.30	2433.36	1425.90	3469728.02	5921240.89	2033190.81
2069/70	18186.20	13664.40	6817.16	5289.00	36055959.24	46473670.47	27973521.00
	$\phi X_1 =$ 56845.20	$\phi X_2 =$ 41877.00			$\phi d_1 d_2$ =64926234.80	$\phi d_1^2 =$ 86781817.09	$\phi d_2^2 =$ 48805278.00

Here,

n   = Number of Year

X_1 = Total deposit

X_2 = Loans and advances

$\in X_1$ = Mean of total deposit

$\in X_2$ = Mean of loans and advances

$$\in X_1 = \frac{\phi X_1}{n} = \frac{56845.20}{5} = 11369.04$$

$$\in X_2 = \frac{\phi X_2}{n} = \frac{41877.00}{5} = 8375.40$$

$$r = \frac{d_1.d_2}{\sqrt{\phi d_1^2 . \phi d_2^2}} = \frac{64926234.80}{\sqrt{86781817.09 \times 48805278.00}} = \frac{64926234.80}{65080033.10} = 0.998$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.998^2)}{\sqrt{5}} = 0.0012$$

6P.E. = 6×0.0012 =0.007

r>6P.E. we conclude that r is highly significant

T-test of Total Deposits and Loans & Advances of EBL

$\in X_1 = 11369.04$; $\in X_2 = 8375.40$;

$S = 4116.84$; $n_1 = 5$

$n_2 = 5$

$$S = \sqrt{\frac{\phi d_1^2 + \phi d_2^2}{n_1 + n_2 - 2}} = \sqrt{\frac{86781817.09 + 48805278.00}{5 + 5 - 2}} = 4116.84$$

Test Statistic

$$t = \frac{\in X_1 - \in X_2}{S} \mid \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\in X_1$ = Mean of the total deposits

$\in X_2$ = Mean of the net profit

n_1 = No. of the year of total deposits

n_2 = No. of the year of net profit

S = Combined standard deviation

$$t = \frac{11369.04 - 8375.40}{4116.84} \mid \sqrt{\frac{(5 \mid 5)}{(5 + 5)}} = 1.150$$

Annex - VI

Calculation of Correlation of coefficient between Total Deposits and Loans & Advances of SCBNL

(Rs. in million)

Year	Total Deposit (X₁)	Loans & Advances (X₂)	d₁ = X₁ - 21392.04	d₂ = X₂- 7937.47	d₁.d₂	d₁²	d₂²
2065/66	18755.63	5695.82	-2636.41	-2241.65	5909906.90	6950678.78	5024976.79
2066/67	21161.44	6410.24	-230.60	-1527.23	352184.42	53178.20	2332419.25
2067/68	19335.10	8143.21	-2056.94	205.74	-423203.89	4231018.62	42330.59
2068/69	23061.03	8935.42	1668.99	997.95	1665571.25	2785514.27	995912.19
2069/70	24647.02	10502.64	3254.98	2565.17	8349579.81	10594868.76	6580117.65
	ϕX_1= 106960.20	ϕX_2= 39687.30			$\phi d_1 d_2$ = 15854038.50	ϕd_1^2 = 24615258.63	ϕd_2^2= 14975756.47

Here,

n = Number of Year

X_1 = Total deposit

X_2 = Loans and advances

$\in X_1$ = Mean of total deposit

$\bar{X}_2$ = Mean of loans and advances

$$\bar{X}_1 = \frac{\phi X_1}{n} = \frac{106960.20}{5} = 21392.04$$

$$\bar{X}_2 = \frac{\phi X_2}{n} = \frac{39687.30}{5} = 7937.46$$

$$r = \frac{d_1 . d_2}{\sqrt{\phi d_1^2 . \phi d_2^2}} = \frac{15854038.50}{\sqrt{24615258.63 \times 14975756.47}} = \frac{15854038.50}{19199794.76} = 0.826$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.826^2)}{\sqrt{5}} = 0.096$$

6P.E. = 6×0.096 = 0.575

r>6P.E. we conclude that r is highly significant

T-test of Total Deposits and Loans & Advances of SCBNL

$\bar{X}_1$ = 21392.04; $\bar{X}_2$ = 7937.46;

S = 1097.70; n_1 = 5

n_2 = 5

$$S = \sqrt{\frac{\phi d_1^2 + \phi d_2^2}{n_1 + n_2 - 2}} = \sqrt{\frac{24615258.63 + 14975756.47}{5 + 5 - 2}} = 1097.70$$

Test Statistic

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \Big| \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\bar{X}_1$ = Mean of the total deposits

$\bar{X}_2$ = Mean of the net profit

n_1 = No. of the year of total deposits

n_2 = No. of the year of net profit

S = Combined standard deviation

$$t = \frac{21392.04 - 7937.46}{1097.70} \Big| \sqrt{\frac{(5 \mid 5)}{(5 + 5)}} = 19.38$$

Calculation of Correlation of coefficient between Total Deposits and Investment of NABIL

(Rs. in million)

Year	Total Deposit (X_1)	Investment (X_2)	$d_1 = X_1 - 11010.52$	$d_2 = X_2 - 17179.06$	$d_1 \cdot d_2$	d_1^2	d_2^2
2065/66	12780.1	6545.05	-4398.96	190.636	-838600.1386	19350849.08	36342.0845
2066/67	15838.9	5835.95	-1340.16	-518.464	694824.7142	1796028.826	268804.9193
2067/68	14586.61	4267.23	-2592.45	-2087.184	5410920.161	6720797.003	4356337.05
2068/69	19347.4	6178.53	2168.34	-175.884	-381376.3126	4701698.356	30935.18146
2069/70	23342.29	8945.31	6163.23	2590.896	15968287.95	37985404.03	6712742.083
	$\phi X_1 = $ 85895.30	$\phi X_2 = $ 31772.10			$\phi d_1 d_2 = $ 20854056.37	$\phi d_1^2 = $ 70554777.30	$\phi d_2^2 = $ 11405161.32

Here,

n   = Number of Year

X_1 = Total deposit

X_2 = Investment

$\in X_1$ = Mean of total deposit

$\in X_2$ = Mean of investment

$$\in X_1 = \frac{\phi X_1}{n} = \frac{85895.30}{5} = 17179.06$$

$$\in X_2 = \frac{\phi X_2}{n} = \frac{31772.10}{5} = 6354.41$$

$$r = \frac{d_1 \cdot d_2}{\sqrt{\phi d_1^2 \cdot \phi d_2^2}} = \frac{20854056.37}{\sqrt{70554777.30 \times 11405161.32}} = \frac{20854056.37}{28367033.98} = 0.735$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.735^2)}{\sqrt{5}} = 0.1387$$

6P.E. = 6×0.1387 = 0.832

r < 6P.E. we conclude that r is insignificant

T-test of Total Deposits and Investment of NABIL

$\in X_1$ =17179.06 $\in X_2$ =6354.41;

S= 3200.78; n_1=5

n_2=5

$$S = \sqrt{\frac{\phi d_1{}^2 + \phi d_2{}^2}{n_1+n_2-2}} = \sqrt{\frac{70554777.30 + 11405161.32}{5 + 5 - 2}} = 3200.78$$

Test Statistic

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \bigg/ \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\bar{X}_1$ = Mean of the total deposits

$\bar{X}_2$ = Mean of the investment

n_1 = No. of the year of total deposits

n_2 = No. of the year of investment

S = Combined standard deviation

$$t = \frac{17179.06 - 6354.41}{3200.78} \bigg/ \sqrt{\frac{(5 \mid 5)}{(5 + 5)}} = 5.347$$

Annex - VIII

Calculation of Correlation of coefficient between Total Deposits and Investment of EBL

(Rs. in million)

Year	Total Deposit (X_1)	Investment (X_2)	$d_1 =$ X_1-127	$d_2 =$ X_2-87	$d_1.d_2$	$d_1{}^2$	$d_2{}^2$
2065/66	6695.00	1654.00	-4674.04	-1447	6763335.88	21846649.92	2093809
2066/67	8063.90	2535.70	-3305.14	-565.3	1868395.642	10923950.42	319564.09
2067/68	10097.70	2128.90	-1271.34	-972.1	1235869.614	1616305.396	944978.41
2068/69	13802.40	4201.30	2433.36	1100.3	2677426.008	5921240.89	1210660.09
2069/70	18186.20	4985.10	6817.16	1884.1	12844211.16	46473670.47	3549832.81
	$\phi X_1 =$ 56845.2	$\phi X_2 =$ 15505			$\phi d_1 d_2 =$ 25389238.3	$\phi d_1{}^2 =$ 86781817.09	$\phi d_2{}^2 =$ 8118844.4

Here,

n = Number of Year

X_1 = Total deposit

X_2 = Investment

$\bar{X}_1$ = Mean of total deposit

$\bar{X}_2$ = Mean of investment

$$\bar{X}_1 = \frac{\phi X_1}{n} = \frac{56845.20}{5} = 11369.04$$

$$\bar{X}_2 = \frac{\phi X_2}{n} = \frac{15505.00}{5} = 3101.00$$

$$r = \frac{d_1 . d_2}{\sqrt{\phi d_1{}^2 . \phi d_2{}^2}} = \frac{25389238.30}{\sqrt{86781817.09 \times 8118844.40}} = \frac{25389238.30}{26543701.13} = 0.956$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.956^2)}{\sqrt{5}} = 0.0257$$

6P.E. = 6×0.0257 = 0.154

r>6P.E. we conclude that r is highly significant

T-test of Total Deposits and Investment of EBL

$\mathcal{E}X_1 = 11369.04$; $\mathcal{E}X_2 = 3101.00$;

S = 3444.21; $n_1 = 5$

$n_2 = 5$

$$S = \sqrt{\frac{\phi d_1{}^2 + \phi d_2{}^2}{n_1 + n_2 - 2}} = \sqrt{\frac{86781817.09 + 8118844.40}{5 + 5 - 2}} = 3444.21$$

Test Statistic

$$t = \frac{\mathcal{E}X_1 - \mathcal{E}X_2}{S} \Big| \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\mathcal{E}X_1$ = Mean of the total deposits

$\mathcal{E}X_2$ = Mean of the investment

n_1 = No. of the year of total deposits

n_2 = No. of the year of investment

S = Combined standard deviation

$$t = \frac{11369.04 - 3101.00}{3444.21} \Big| \sqrt{\frac{(5 \mid 5)}{(5 + 5)}} = 6.655$$

Annex - IX

Calculation of Correlation of coefficient between Total Deposits and Investment of SCBNL

(Rs. in million)

Year	Total Deposit (X_1)	Investment (X_2)	$d_1 =$ $X_1 -$ 21392.04	$d_2 =$ $X_2 -$ 11562.47	$d_1 . d_2$	$d_1{}^2$	$d_2{}^2$
2065/66	18755.63	10357.70	-2636.41	-1204.77	3176267.676	6950657.688	1451470.753
2066/67	21161.44	11360.33	-230.6	-202.14	46613.484	53176.36	40860.5796
2067/68	19335.10	9702.55	-2056.94	-1859.92	3825743.845	4231002.164	3459302.406

2068/69	23061.03	12838.55	1668.99	1276.08	2129764.759	2785527.62	1628380.166
2069/70	24647.02	13553.23	3254.98	1990.76	6479883.985	10594894.8	3963125.378
	$\phi X_1=$ 106960.2	$\phi X_2=$ 57812.36			$\phi d_1 d_2 =$ 15658273.75	$\phi d_1{}^2=$ 24615258.63	$\phi d_2{}^2 =$ 10543139.28

Here,

n = Number of Year

X_1 = Total deposit

X_2 = Investment

$\in X_1$ = Mean of total deposit

$\in X_2$ = Mean of investment

$\in X_1 = \dfrac{\phi X_1}{n} = \dfrac{106960.20}{5} = 21392.04$

$\in X_2 = \dfrac{\phi X_2}{n} = \dfrac{57812.36}{5} = 11562.47$

$r = \dfrac{d_1 . d_2}{\sqrt{\phi d_1{}^2 . \phi d_2{}^2}} = \dfrac{15658273.75}{\sqrt{24615258.63 \times 10543139.28}} = \dfrac{15658273.75}{16109689.64} = 0.972$

Positive correlation

$\text{P.E.} = \dfrac{0.6745(1 - r^2)}{\sqrt{n}} = \dfrac{0.6745(1 - 0.972^2)}{\sqrt{5}} = 0.0167$

6P.E. = 6×0.0167 = 0.10

r>6P.E. we conclude that r is highly significant

T-test of Total Deposits and Investment of SCBNL

$\in X_1 = 21392.04$; $\in X_2 = 11562.47$;

S = 2096.38; $n_1 = 5$

$n_2 = 5$

$S = \sqrt{\dfrac{\phi d_1{}^2 + \phi d_2{}^2}{n_1 + n_2 - 2}} = \sqrt{\dfrac{24615258.63 + 10543139.28}{5 + 5 - 2}} = 2096.38$

Test Statistic

$t = \dfrac{\in X_1 - \in X_2}{S} \mid \sqrt{\dfrac{(n_1 n_2)}{(n_1 + n_2)}}$

Where,

$\in X_1$ = Mean of the total deposits

$\in X_2$ = Mean of the investment

n_1 = No. of the year of total deposits

n_2 = No. of the year of investment

S = Combined standard deviation

$$t = \frac{21392.04 - 11562.47}{2096.38} \Bigg/ \sqrt{\frac{(5 \mid 5)}{(5+5)}} = 4.689$$

Annex - X

Calculation of Correlation of coefficient between Current Assets and Current Liabilities of NABIL

(Rs. in million)

Year	Current Assets (X_1)	Current Liabilities (X_2)	$d_1 = X_1 - 19704.11$	$d_2 = X_2 - 18338.45$	$d_1 . d_2$	d_1^2	d_2^2
2065/66	16310.71	15248.43	-3393.398	-3090.02	10485667.69	11515149.99	9548223.6
2066/67	16407.36	15263.81	-3296.748	-3074.64	10136313.27	10868547.38	9453411.13
2067/68	16825.09	15528.69	-2879.018	-2809.76	8089349.616	8288744.644	7894751.258
2068/69	22010.88	20454.98	2306.772	2116.53	4882352.141	5321197.06	4479699.241
2069/70	26966.50	25196.34	7262.392	6857.89	49804685.47	52742337.56	47030655.25
	$\phi X_1 = 98520.54$	$\phi X_2 = 91692.25$			$\phi d_1 d_2 = 83398368.19$	$\phi d_1^2 = 88735976.63$	$\phi d_2^2 = 78406740.48$

Here,

n = Number of Year

X_1 = Current assets

X_2 = Current liabilities

$\in X_1$ = Mean of current assets

$\in X_2$ = Mean of current liabilities

$\in X_1 = \dfrac{\phi X_1}{n} = \dfrac{98520.54}{5} = 19704.11$

$\in X_2 = \dfrac{\phi X_2}{n} = \dfrac{91692.25}{5} = 18338.45$

$$r = \frac{d_1.d_2}{\sqrt{\phi d_1^2.\phi d_2^2}} = \frac{83398369.19}{\sqrt{88735976.63 \times 78406740.48}} = \frac{83398369.19}{83411622.04} = 0.9998$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.9998^2)}{\sqrt{5}} = 0.0001$$

$6P.E. = 6 \times 0.0001 = 0.0006$

$r > 6P.E.$ we conclude that r is highly significant

T-test of Current Assets and Current Liabilities of NABIL

$\in X_1 = 19704.11$; $\in X_2 = 18338.45$;

$S = 4570.87$; $n_1 = 5$

$n_2 = 5$

$$S = \sqrt{\frac{\phi d_1^2 + \phi d_2^2}{n_1+n_2-2}} = \sqrt{\frac{88735976.63 + 78406740.48}{5 + 5 - 2}} = 4570.87$$

Test Statistic

$$t = \frac{\in X_1 - \in X_2}{S} \Big| \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\in X_1$ = Mean of the Current Assets

$\in X_2$ = Mean of the Current Liabilities

n_1 = No. of the year of Current Assets

n_2 = No. of the year of Current Liabilities

S = Combined standard deviation

$$t = \frac{19704.11 - 18338.45}{4570.87} \Big| \sqrt{\frac{(5 \mid 5)}{(5 + 5)}} = 0.472$$

Annex - XI

Calculation of Correlation of coefficient between Current Assets and Current Liabilities of EBL

(Rs. in million)

Year	Current Assets (X_1)	Current Liabilities (X_2)	$d_1 = X_1 - 13005.07$	$d_2 = X_2 - 12403.54$	$d_1.d_2$	d_1^2	d_2^2
2065/66	7836.89	7439.40	-5168.178	-4964.142	25655569.47	26710063.84	24642705.8
2066/67	9420.97	8928.20	-3584.098	-3475.342	12455966.31	12845758.47	12078002.02
2067/68	11629.40	11022.51	-1375.668	-1381.032	1899841.529	1892462.446	1907249.385
2068/69	15155.29	14696.50	2150.222	2292.958	4930368.737	4623454.649	5257656.39

2069/70	20982.79	19931.10	7977.722	7527.558	60052765.06	63644048.31	56664129.44
	$\phi X_1 =$ 65025.34	$\phi X_2 =$ 62017.71			$\phi d_1 d_2 =$ 104994511.1	$\phi d_1^2 =$ 109715787.7	$\phi d_2^2 =$ 100549743

Here,

n $\quad$ = Number of Year

X_1 $\quad$ = Current assets

X_2 $\quad$ = Current liabilities

$\bar{X}_1$ $\quad$ = Mean of current assets

$\bar{X}_2$ $\quad$ = Mean of current liabilities

$$\bar{X}_1 = \frac{\phi X_1}{n} = \frac{65025.34}{5} = 13005.07$$

$$\bar{X}_2 = \frac{\phi X_2}{n} = \frac{62017.71}{5} = 12403.54$$

$$r = \frac{d_1 . d_2}{\sqrt{\phi d_1^2 . \phi d_2^2}} = \frac{104994511.10}{\sqrt{109715787.70 \times 100549743.00}} = \frac{104994511.10}{105032824.70} = 0.9996$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.9996^2)}{\sqrt{5}} = 0.00022$$

6P.E. = 6×0.00022 = 0.0013

r>6P.E. we conclude that r is highly significant

T-test of Current Assets and Current Liabilities of EBL

$\bar{X}_1 = 13005.07; \quad \bar{X}_2 = 12403.54;$

S = 5126.71; $\quad n_1 = 5$

$n_2 = 5$

$$S = \sqrt{\frac{\phi d_1^2 + \phi d_2^2}{n_1 + n_2 - 2}} = \sqrt{\frac{109715787.70 + 100549743.00}{5 + 5 - 2}} = 5126.71$$

Test Statistic

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S} \Big/ \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\bar{X}_1$ $\quad$ = Mean of the Current Assets

$\bar{X}_2$ $\quad$ = Mean of the Current Liabilities

n_1 $\quad$ = No. of the year of Current Assets

n_2 $\quad$ = No. of the year of Current Liabilities

S $\quad$ = Combined standard deviation

$$t = \frac{13005.07 - 12403.54}{5126.71} \Big/ \sqrt{\frac{(5 \times 5)}{(5 + 5)}} = 0.1855$$

Calculation of Correlation of coefficient between Current Assets and Current Liabilities of SCBNL

(Rs. in million)

Year	Current Assets (X_1)	Current Liabilities (X_2)	$d_1 = X_1 - 24036.88$	$d_2 = X_2 - 22498.62$	$d_1.d_2$	d_1^2	d_2^2
2065/66	20719.26	19542.06	-3317.62	-2956.56	9808742.587	11006602.46	8741247.034
2066/67	23505.83	22146.32	-531.05	-352.3	187088.915	282014.1025	124115.29
2067/68	21822.17	20311.17	-2214.71	-2187.45	4844567.39	4904940.384	4784937.503
2068/69	25666.05	24013.21	1629.17	1514.59	2467524.59	2654194.889	2293982.868
2069/70	28471.10	26480.34	4434.22	3981.72	17655822.46	19662307.01	15854094.16
	$\phi X_1 = 120184.41$	$\phi X_2 = 112493.1$			$\phi d_1 d_2 = 34963745.94$	$\phi d_1^2 = 38510058.85$	$\phi d_2^2 = 31798376.85$

Here,

n = Number of Year

X_1 = Current assets

X_2 = Current liabilities

$\bar{X}_1$ = Mean of current assets

$\bar{X}_2$ = Mean of current liabilities

$$\bar{X}_1 = \frac{\phi X_1}{n} = \frac{120184.41}{5} = 24036.88$$

$$\bar{X}_2 = \frac{\phi X_2}{n} = \frac{112493.1}{5} = 22498.62$$

$$r = \frac{d_1.d_2}{\sqrt{\phi d_1^2 . \phi d_2^2}} = \frac{34963745.94}{\sqrt{38510058.85 \times 31798376.85}} = \frac{34963745.94}{34993676.05} = 0.9991$$

Positive correlation

$$P.E. = \frac{0.6745(1 - r^2)}{\sqrt{n}} = \frac{0.6745(1 - 0.9991^2)}{\sqrt{5}} = 0.0011$$

$6P.E. = 6 \times 0.0011 = 0.0066$

$r > 6P.E.$ we conclude that r is highly significant

T-test of Current Assets and Current Liabilities of SCBNL

$\bar{X}_1 = 24036.88$; $\bar{X}_2 = 22498.62$;

$S = 2964.55$; $n_1 = 5$

$n_2 = 5$

$$S = \sqrt{\frac{\phi d_1^2 + \phi d_2^2}{n_1+n_2-2}} = \sqrt{\frac{38510058.85 + 31798376.85}{5 + 5 - 2}} = 2964.55$$

Test Statistic

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S} \Big/ \sqrt{\frac{(n_1 n_2)}{(n_1 + n_2)}}$$

Where,

$\overline{X}_1$	= Mean of the Current Assets
$\overline{X}_2$	= Mean of the Current Liabilities
n_1	= No. of the year of Current Assets
n_2	= No. of the year of Current Liabilities
S	= Combined standard deviation

$$t = \frac{24036.88 - 22498.62}{2964.55} \Big/ \sqrt{\frac{(5 \mid 5)}{(5 + 5)}} = 0.519$$