# CHAPTER- I INTRODUCTION

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

Banking in Nepal is mushrooming and flourishing in last two decades. There are 31 commercial banks, 61 national and regional development banks, 78 financial institutions. The trend of establishing new banks and financial institutions is going on. The banks and financial institutions play key and very significant role in country's economic development. They are the main source of capital supply to the business plus they provide many banking services which are essential for the economic activities. The bank and financial institutions do business in cash and money. Cash is major component- a bank/financial institution deals with. Cash management is the key to business success. Cash flow management in a bank is one of the crucial and challenging activities. It is always challenging and tricky for a bank to have required liquidity to run its business and to invest its huge cash balances in high and secured earning portfolios. If a bank fails to manage its cash in an effective manner, it affects its profitability and sustainability.

Considering the above facts, this research study concentrated into the way of cash management and identify its effects on banks' profitability as well as on liquidity. In this research, comparative cash flow management of the listed high performing banks were taken.

## **1.2** Historical Background of Bank and its role in Nepalese Economy

Currently banking sector of Nepal is one of the most growing and developing sectors but its history is not much long. After establishment of Nepal Bank Limited in 1994 BS, banking history started. All banking transactions were carried out in a traditional way by the traders and money lenders prior to the establishment of Nepal Bank Limited. There are histories of similar banking institution i.e Thankadhari and Tejarath which carried out limited banking transactions during the Rana Regime which were not in the form of a bank in real meaning. Though first commercial bank was established in 1994 BS, the central bank of Nepal (Nepal Rastra Bank) was established in 2013 BS. After central bank's establishment, other two commercial banks were established. Rastriya Banijya Bank was established as the second commercial bank in 2022 B.S. and Agricultural Development Bank in 2024 B.S. Modern banking started after Nepal adopted open and competitive economic policy after which Nepal Arab Bank Limited (renamed as Nabil Bank Ltd since 2002) was established in 2042 BS. After restoration of Democracy, the trend of opening of new bank is rapidly increasing. Currently there are 31 commercial banks, 62 Development Banks and 78 financial institutions operating in Nepal. Modern banking facilities i.e. cards, internet banking, consumer lending etc can be obtained from Nepalese banking sector these days. Many modern and private sector banks are focusing to expand their business in rural areas as well after restoration of peace after 12 year long civil war of Maoist so that people of rural areas can have easy access to financial services and furthermore it will definitely contribute to the economic development of the country.

## **1.3** Cash flow Management

Cash flow management is the process of monitoring, reviewing and regulating a firm's cash flows. Cash flow is to a business what oxygen is to human beings. Cash flow management helps a business survive and prosper and is the main indicator of a firm's financial health. Cash flow management helps to strengthen a business through the timely estimation of overall cash inflows and outflows. Cash flow management also helps avoid cash shortages.

Cash inflows are realized through the sale of goods and services to customers. Cash outflows take place through operating expenses, the purchase of fixed assets, loan repayments, dividend payment and taxes. By managing cash inflows and outflows, it is possible to maintain a specific amount of cash at all times.

Cash flow management is a vital activity in commercial banks as their major job is to generate earning by cash business or money business. Commercial banks take money from the people and again lend to the people thus generate excess cash flow to meet the competitive profitability. Hence, the management of cash in the business of commercial bank is considered as the key financial activity. Outflow and inflow of cash and its adequate management to achieve the short as well as long term targets and objectives, are focal concern of cash flow management. Cash itself doesn't generate profit but the effective use of cash certainly generates lots of profit which is the most important aim of cash flow management. Cash flow management seeks certain tools, techniques and skills for excellent management of cash within the bank. It can be said that cash flow

management covers most of the major activities and success of a commercial bank. In this research comparative cash flow management of the listed high performing banks were taken for analysis. The annual financial reports of several fiscal years were the basis of research.

## **1.4 Introduction of the Sampled Joint Venture Banks**

The researcher took the following highly performing four joint venture commercial banks operating in Nepal

#### 1.4.1 Standard Chartered Bank Nepal Ltd. (SCBNL)

Standard Chartered Bank Nepal Ltd. (SCBNL) is a leading joint venture bank. It was established in 1985 A.D.as the second joint venture bank. The main objective of the bank is to collect deposit and provide loans to agriculture, commerce and industries and to provide the modern banking service to the Nepalese people. After standard chartered group acquired worldwide operation of Grindlays, it changed its name into Standard Chartered in 2001. The total paid up share capital of SCBNL is Rs 41.25 million, out of which 75 % is taken by Standard Chartered group and the rest is taken by general public of Nepal. Standard Chartered is considered as one of the most successful commercial banks in Nepalese banking sector.

#### **1.4.2** Nabil Bank Ltd. (NABIL)

Nabil bank is the first joint venture private bank of Nepal. It was established in 1984 A D. Initially the bank had investment of Dubai Bank Ltd representing 50% of total share. Now all shares of the bank are owned by Nepalese business houses and general public. Now bank has more than 28 branches/counters across the country. The paid of capital of the bank is Rs 68.19 million. Nabil bank is considered as one of the most successful and reputed banks in the banking sector of Nepal.

#### **1.4.3** Everest Bank Ltd. (EBL)

Everest Bank Ltd was established in 1994 A.D. as a private sector bank. It is the second Nepal Indo tie up in the banking sector of the Nepal with a view of encouraging banking service. The paid up capital of EBL is Rs 83.14 million, 20% of which is owned by Punjab National Bank of India, the largest networked bank of India. It has its head office at Lazimpat; Kathmandu and has opened 26 branches across the country. Concerning the

need and convenience of the customers, EBL is committed to stay up to date with the latest technologies. It has been providing ATM services and in addition has made an agreement with Smart Choice Technology (SCT) hence enabling its customers to withdraw money from more than 64 different ATM counters and also accessing its valued customer to many SCT points of sales.

#### 1.4.4 Bank of Kathmandu Ltd. (BOK)

Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector which started its operation in 2052 B.S. (1995 A.D.) with an objective to stimulate the Nepalese economy and take it to newer heights. Bank of Kathmandu's more than 50% share is owned by general public of Nepal. The total paid up capital of Bank is Rs60.31 million. Bank of Kathmandu has 23 Branch Networks and 6 counters across the country.

## **1.5** Statement of the Problem

The importance of effective cash flow management in the bank and financial institutions from the operational aspects has been already described above. Beside operational aspect, a bank and financial institutions should take care about the compliance issues of cash as a statutory requirement of the central bank regulation and policy- Statutory Liquidity Ratio (SLR). Some banks and financial institutions may not be able to maintain the adequate Liquidity Ratio as required by central bank directives, in consequence of which they may encounter compliance action from the central bank. Considering the fact this study attempts to study the sampled banks' normal policy and practices regarding the requirements.

## **1.6** Objective of the Study

The main objective of the present study was to explore and analyze cash flow and liquidity management efficiency of the above listed commercial banks. It was also aimed to find out the relationship between cash flow management and liquidity issues that might occur in the financial market. Furthermore, the study attempted to meet the following objectives.

- Analyse the cash flow position of the selected commercial banks of Nepal.
- Conduct comparative study of the annual cash flow statements of the banks.
- Examine the cash flows periodically due to change in net assets, financial structure, and different activities like operating, financing, investing and marketing.
- Recommend on the basis of the findings that will contribute to the further strengthen the profitability positions.

## **1.7** Importance of the Study

It is very important to see how commercial banks are managing cash flow and liquidity position and how it affects the banks' effectiveness.

The main strategy of every commercial bank is to establish the better cash flow position, which has direct impact on the financial performance. Besides, it helps to build positive attitude and perception on customer that helps to make the organizational success in terms of better transaction and profitability. Most of the earlier researches had paid their attention and focus on financial performance of bank but only few researches were focused on cash flow and liquidity management and profitability position.

Especially commercial banks have to be more particular and specific to mobilize and manage their cash resources. There will be branches of international bank also from 2010 that may cause tough competition among the banks. To cope with strong competition Nepalese commercial banks need to strengthen their capacity themselves in terms of cash, capital, operation, management, technology, resource etc. And the most necessary factor to be considered is operating activities, which are taken as the major source of generating cash. This research will be of great help in the following issues.

- Analysis and evaluation of the cash flow management system of the listed banks.
- Finding out the variation of cash flows among the banks.
- Elaboration of the causes of liquidity issues within the financial institution with special reference to commercial banks.
- Identification of the tools which need to be adopted to manage the liquidity issues.

## **1.8** Limitations of the Study

The scope of the study was limited only to commercial banks because of time and resource constraints. This study would be a very basic attempt to address the research issues; therefore, it might not be able to show casual linkage or effect.

This study might not address all the aspects of cash flows. The study was based on employees' views; self repeated response about their perception on primary analysis. Therefore, the response collected from the employees might not be effective and accurate measure.

Secondary analysis was done based on published annual financial reports and data collected from the concerned banks. And the secondary analysis covered time span of the current five fiscal years. Various financial tools were used to know financial condition of the bank. However, the study tried to find out cash flow as well as liquidity position and its effective and adequate management in the selected commercial banks.

## **1.9** Organizational Structure of the Study

The present study was organized in such a way that the stated objectives can easily be fulfilled. The research works tried to analyze the study in a systematic way. The study report presented the systematic presentation of its analysis and finding of the research. The study was being organized in the following major sections:

#### **Chapter-I: Introduction**

This chapter described the basic concept and background of the study. It served as an orientation for readers to know about the basic information of the research area, various problems of the study, objectives of the study and need or significance of the study.

#### **Chapter-II: Review of Literature**

The second chapter of the study dealt with the resources and data which were being used for the study. Further it elicited the insider of cash flow statements, its contents including regulator formats etc.

#### **Chapter-III: Research Methodology**

Research methodology refered to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. The chapter mainly included the sources of data, data collection techniques, data analysis tools etc.

#### **Chapter - IV: Presentation and Analysis of Data**

This chapter analyzed the data related with study and presents the findings of the study and also comments briefly on them.

#### **Chapter - IV: Summary, Conclusion and Recommendations**

On the basis of the results from data analysis, the researcher presented conclusions about the performance of the concerned banks in terms of cash flow management. The study report included suggestions to the concerned banks and authorities for better improvement The end part of the research study includes:

## a. Bibliography

#### b. Appendix

# CHAPTER- II REVIEW OF LITERATURE

## 2.1 Cash Flow Management

Cash flow management is the process of monitoring, reviewing and regulating a company's cash flows. Cash flow management helps a business survive and prosper and is the main indicator of a company's financial health. Cash flow management helps to strengthen a business through the timely estimation of overall cash inflows and outflows. Without a positive cash flow a business may not survive, even if it is profitable.

Therefore, it is essential to perform a cash flow analysis on a regular basis, and use cash flow forecasting in taking necessary steps to tackle with cash flow problems. Many software accounting programs have built-in reporting features that make cash flow analysis easy. This is the first step of cash flow management.

The second step of cash flow management is to develop and use strategies that will maintain an adequate cash flow for any business. Below are some strategies which should be considered in cash flow management:

- Optimize the cash flow management for both receipts and payments.
- Accelerate the collection of remittances and improve control of disbursements.
- Successfully invest excess funds in short-term instruments.
- Understand the account analysis statement.

#### 2.1.1 Cash Flow Statements

Cash flow statement, also known as *statement of cash flows*, is a <u>financial statement</u> that shows how changes in <u>balance sheet</u> and income statement affect <u>cash and cash equivalents</u>, by reporting cash flows from operating, investing, and financing activities. Essentially, the cash flow statement is concerned with the flow of cash in and cash out of the business. The statement captures both the current operating results and the accompanying changes in the balance sheet. As an analytical tool, the statement of cash flows is useful in determining the short-term viability of a company, particularly in terms of its ability to pay bills. Cash Flow statement has become an integral component of the financial statements as balance sheet and income statement as required by the international accounting standard and globally accepted accounting practices.

The cash flow statement has these days replaced the statement of changes in financial position or flow of funds statement. The cash flow statement reflects a firm's liquidity or solvency.

#### 2.1.2 Objectives of Cash Flow Statement

The cash flow statement is intended to:

- Provide information on a firm's liquidity and solvency and its ability to change cash flows in future circumstances.
- Provide additional information for evaluating changes in assets, liabilities and equity.
- Improve the comparability of different firms' operating performance by eliminating the effects of different accounting methods.
- Indicate the amount, timing and probability of future cash flows.
- To evaluate the state or performance of a business or project.
- To determine problems with liquidity. Being profitable does not necessarily mean being liquid. A company can fail because of a shortage of cash, even while profitable.
- To generate project rate of returns. The time of cash flows into and out of projects are used as inputs to financial models such as internal rate of return, and net present value.
- To examine income or growth of a business when it is believed that accrual accounting concepts do not represent economic realities. Alternately, cash flow can be used to 'validate' the net income generated by accrual accounting.

#### 2.1.3 Benefits of Using Cash Flow

The cash flow statement is one of the four main financial statements. The cash flow statement can be examined to determine the short-term sustainability of a company. If cash is increasing (and operational cash flow is positive), then a company will often be deemed to be healthy in the short-term. Increasing or stable cash balances suggest that a company is able to meet its cash needs, and remain solvent. This information cannot be seen in the income statement or the balance sheet of a company. For instance, a company may be generating profit, but still may have difficulty in liquidity issue.

The cash flow statement breaks down the sources of cash generation into three sections: operational cash flows, investing, and financing. This breakdown allows the user of financial statements to determine how the company is deriving its cash for operations. For

example, a company may be notionally profitable but generating little operational cash (as may be the case for a company that barters its products rather than selling for cash). In such a case, the company may be deriving additional operating cash by issuing shares, or raising additional debt finance.

In certain cases, cash flow statements may allow careful analysts to detect problems that would not be evident from the other financial statements alone. Use of one measure of cash flow would potentially have detected that there was no change in overall cash flow (including capital investments).

## 2.1.4 Cash Flow Activities

The cash flow statement is partitioned into three segments namely: cash flow resulting from operating activities, cash flow resulting from investing activities, and cash flow resulting from financing activities.

## i. Operating Activities

Operating activities include the production, sales and delivery of the company's product as well as collecting payment from its customers. This includes purchasing raw materials, building inventory, advertising and shipping the product. In general, operating cash flows include:

- Receipts from the sale of goods or services.
- Receipts from loans, debt or equity instruments in a trading portfolio.
- Interest received on loans.
- Dividends received on securities.
- Payments to suppliers for goods and services.
- Payments to employees or on behalf of employees.
- Tax payments.
- Interest payments (alternatively, this can be reported under financing activities).
- Payments for the sale of loans, debt or equity instruments in a trading portfolio.

## (Extracted from International Accounting Standard)

## *ii.* Investing Activities

Investing activities focus on the purchase of the long-term assets a company needs in order to make and sell its products, and the selling of any long-term assets.

Generally investing cash flows include:

• Collections on loan principal and sales of other firms' debt instruments.

- Investment returns from other firms' equity instruments, including sale of those instruments.
- Receipts from sale of plant and equipment.
- Expenditure for purchase of plant and equipment.
- Loans made and acquisition of other firms' debt instruments.
- Expenditure for purchase of other firms' equity instruments (unless held for trading or considered cash equivalents)

(Extracted from International Accounting Standard)

## *iii. Financing Activities*

Financing activities include the inflow of cash from investors such as banks and shareholders, as well as the outflow of cash to shareholders as dividends as the company generates income. Other activities which impact the long-term liabilities and equity of the company are also listed in the financing activities section of the cash flow statement. Generally financing cash flows include:

- Proceeds from issuing shares
- Proceeds from issuing short-term or long-term debt
- Payments of dividends
- Payments for repurchase of company shares
- Repayment of debt principal, including capital leases
- For non-profit organizations, receipts of donor-restricted cash that is limited to longterm purposes

(Extracted from International Accounting Standard)

## 2.1.5 Preparation of Cash Flow Statement

The direct method of preparing a cash flow statement results in a more easily understood report. The indirect method is almost universally used.

Cash Flow Statement: Direct Method

The direct method for creating a cash flow statement reports major classes of gross cash receipts and payments. Dividends received may be reported under operating activities or under investing activities. If taxes paid are directly linked to operating activities, they are reported under operating activities; if the taxes are directly linked to investing activities or financing activities, they are reported under investing or financing activities.

Cash Flow Statement: Indirect Method

The indirect method uses net income as a starting point, makes adjustments for all transactions for non-cash items, then adjusts for all cash-based transactions. An increase in an asset account is subtracted from net income, and an increase in a liability account is added back to net income. This method converts accrual-basis net income (or loss) into cash flow by using a series of additions and deductions.

There is not any right way to prepare cash flow statement beside direct and indirect method but business organization attempt to show the actual outflow and inflow of cash or the position of cash in the specified time period according to the rules and regulations. Banks and financial institutions have to prepare their financial report including cash flow statement, according to the directives, rules and regulations provided by NRB (Nepal Rastra Bank) in the format prescribed by accounting standard board.

## 2.2 Concept of Liquidity

Liquidity management is having cash when needed. Liquidity means having sufficient funds to meet regulatory, contractual and relationship obligations when required and at a reasonable cost to the bank. Inadequate liquidity leads banks to lose the trust of the public. So, liquidity is the lifeline of the bank. In this regard, the term liquidity management is used to describe money and assets that are readily convertible into money within short span of time.

"Liquidity is the availability of cash in the amount and at the time needed at a reasonable cost." (Ross, 2003:345)

One of the most important tasks faced by the management of any bank is ensuring adequate liquidity. A bank is considered to be liquid if it has ready access to immediately spendable funds at a reasonable cost at precisely the time those funds are needed. This suggests that a liquid bank either has the right amount of immediately spendable funds on hand when they are required or can quickly raise liquid funds by borrowing or selling assets.

Liquidity management is a tough task to be discharged by the management of every business entity. Managing liquidity for a bank involves having enough cash on hand and being able to borrow cash at a reasonable cost in order to meet cash needs exactly when they arise.

## 2.3 Review of the Related Studies:

This section deals about concept or findings of earlier scholars on the related area. It helps in knowing about the related field.

#### 2.3.1. Review of Books

The statement of cash flows is an important complement to the other major financial statements. It summarizes the operating, investing and financing activities of a business over a period of time. The balance sheet summarizes the cash on hand and the balances in other assets, liabilities and owners' equity accounts, providing a snapshot at a specific point in time. The statement of cash flows reports the changes in cash over a period of time and, explains these changes.

The income statement summarizes performance on an accrual basis. Income on this basis is considered a better indicator of future cash inflows and outflows than is a statement limited to current cash flows. The statement of cash flows complements the accrual-based income statement by allowing users to assess a company's performance on a cash basis. (Porter & Norton, 2004: 585)

Cash Flow simply refers to the flow of cash into and out of a business over a period of time. Watching the cash inflow and out flow is one the major management task. The out flow of cash is measured by those cheques issued every month to pay salaries, suppliers, creditors, and to others. The inflows are the cash received from customers, lenders and investors.

The analysis of events and transactions that affect the cash position of a company is termed as cash flow analysis. Cash flow analysis is done through statement of cash flows. A cash flow statement is a statement of company's ability to generate cash from various activities such as operating, investing, and financing and their need of cash. It is a statement, which shows the inflows and outflows of cash and cash equivalents during the year.

The cash flow statement of an enterprise is useful in providing information to the users of financial statements about ability of the enterprise to generate cash and cash equivalents and the need of the enterprise to utilize those cash flows. (Wagle and Dahal, 2006: 11.1) Cash is the life blood of a business enterprise. It is the fuel that keeps a business alive. Without cash not activities can take place. So a business must have an adequate amount of

cash to operate. The decision makers must pay close attention to the firm's cash position and events and transaction that affect/cause cash position to change. The analysis of the events and transaction that affect the cash position of the company is termed as cash flow analysis.

Information about cash flow is useful in many ways. The cash also influence the decision maker in many ways. Decision makers may be: investors, creditors and management Investors have to decide whether to invest or not on a given company. Investors will value higher to the company whose regular operating cash flow is more than uses.

Creditors have to decide whether to provide credit facility or not, to the given company. Information about cash flow can help creditors decide whether a company will have enough cash to pay the debts as they mature.

Management has to evaluate whether the company has ability to meet unexpected obligations and ability to take advantages of new business opportunities that may arise. And for this, the management has to use cash flow analysis.

Due to increase importance of cash flow analysis to the decision makers, the Financial Accounting Standard Board (FASB) stated that the financial statement of the company should include information about:

- How a business obtains and spends cash
- Its borrowing and repayment activities
- The sales and repurchase of its ownership securities
- Dividend payments and other distributions to its owners, and
- Other factors those affect a company's liquidity and solvency.

#### (Munankarmi, 2003: 13.1)

How much cash is generated by business operation? How much cash is spent for current and noncurrent assets? Where did the company get cash for expenditure? How did the company become able to pay dividends? All these questions are some examples raised by the financial statements users. The balance sheet, income statement and statement of shareholder's equity do not answer all these questions raised by the users of financial statement. For such, cash flow statement answers these questions. Cash flow statement describes the sources and uses of cash of an organization. It provides information about the inflow and outflow of cash of a firm in an accounting period. It can thus be defined as a statement which explains the change in cash position from one balance sheet date to the next balance sheet date.

The statement which reports cash flows during the period classified by operating, investing and financing activities is known as cash flow statement. Cash flows are inflows and outflows of cash and cash equivalents. Cash equivalents are short term highly liquid investment, such as money market funds, commercial papers and treasury bills. (Dangol and Dangol, 2064:654)

#### 2.3.2 Review of Articles

The effort has been made in this present section to examine and review the some related articles published in different economic journals, Bulletins, magazines and newspapers.

Mr. S.P. Munankarmi in his article called cash flow analysis noted that cash flow analysis is an integral part of "Financial Planning", and stated the importance of cash in organization by calling it the lifeblood of business enterprise. According to him, it is the fuel that keeps a business alive. So, a business must have an adequate amount of cash to operate and decision makers should pay attention to the firm's cash position and events and transaction that affects the position of cash. Analysis of events and transaction that affect the position of cash flow analysis.

Due to the increasing importance of cash flow analysis Accounting Standard Board states that financial statements should include information about how a business obtains and spends cash for its borrowing and repayment activities for the sales and repurchase of its ownership securities for dividend payments and other distribution to its owners and for other factors that affect a company's liquidity and solvency.

According to the article, profits are accounting measures that may not reflect the economic realities of the firm that means profit can be manipulated and increasing profits will not always result in higher stock prices. Cash flow analysis not only recognizes profit but it also goes a little further and measures the actual cash available for the time. It is after all the available cash not the profit that determines the firm's future investments and growth. As the article states further that recognizing the importance of the cash flow analysis, Financial Accounting Standard Board issued financial statements standards no.95 and statements of cash flows in November 1987. This standard requires the business to include

a statement of cash flows in all financial reports that contains balance sheets and income statements. The IAS has also replaced FASB and asked its entire members to present cash flow statement along with the balance sheet and income statement since 1992.

Investment activities as stated in the article include the lending money (investment) and collecting on loans buying and selling of productive assets that are expected to generate revenue in the future and buying and selling securities not classified as cash equivalent are defined as short term, highly liquid investment that are readily convertible to know amount of cash and must be sufficient close to its maturity date. Determinations of cash flow from investing activities requires the analysis of non-current items of comparative balance sheets, additional information and non cash expenses non-operating incomes and expenses, statement relating to assets, investment in shares and debentures, short term investment other than cash equivalent.

Net cash from financing activities are determined by the flow of short term loans and overdrafts. There may be some non cash investing and financing payments and such payments are not reported in the statement of cash flow. The FASB concluded that non cash portions of investing and financing activities should not reported on the statement of cash flow. However, the board recognized that non cash investing and financing activities are important events and so they should be disclosed by preparing a separate schedule for such activities.

The article concluded that an accurate cash flow projection being an integral part of financing plan helps to avoid cash flow problems and also helps to keep borrowing costs as low as possible. (SP Munankarmi, 2004:38)

#### 2.3.3 Review of the Previous Thesis

Sarada Shrestha, (2006) presented thesis on **"Performance Measurement of Joint Venture Banks in Nepal"**, an unpublished thesis submitted to Nepal Commerce Campus, Faculty of Management, T.U. According to his research the banks should increase and attract deposit. The following are the specific objectives of his study.

- To determine how efficiently assets have been utilized by the banks.
- To find out the problems and difficulties faced by the banks.
- To analyze the liquidity position of the banks.
- To see the trend of cash management of the banks.

## Recommendations

- Banks should increase and attract deposits.
- Banks should invest more in Government Securities.
- Banks should extend their branches to generate more cash flows.

Babu Ram Kafle, (2007) presented thesis on "**Analysis and Comparative Study on Cash Flow of Commercial Banks**", an unpublished thesis submitted to Nepal Commerce Campus, Faculty of Management, T.U. His had conducted the research with the following objectives.

- To analyze the trend of cash flow.
- To examine and compare the cash flow statement.
- To present the overall cash management picture of the selected commercial banks.
- To critically analyze the cash management techniques practiced by the commercial banks.

## Recommendations

- Banks should increase loan and advances.
- Share capital should also be increased.
- Cash planning and cash budget is needed on a formal basis so as to project cash surplus or cash deficit for a period not exceeding one year and broken up into shorter intervals.

Amit Shrestha, (2007) presented thesis on "An Analytical and Comparative Study on Cash Flow of Joint Venture Banks in Nepal", an unpublished thesis submitted to Nepal Commerce Campus, Faculty of Management, T.U. The major objectives behind his research are as follows:

- To analyze the cash flow position of the selected Joint Venture commercial banks of Nepal.
- To study the annual cash flow statements of the banks.
- To analyze the contributing factors to the net profit.
- To examine the various activities of the banks(i.e. operating, financing and investing)

## Recommendations

- Commercial Banks should increase their CFOA.
- Banks should not cartel in deposit or should not collect excess deposit than they can invest or use to increase surplus in cash flow.

- Banks should extend their market and branches.
- Banks are suggested to reduce the gap between assets and liabilities by appropriate policy.

Dinesh Kumar Bhattarai,(2008) presented thesis on "Comparative Analysis of Cash Flow" (with special reference to joint venture and Nepalese Commercial Banks), an unpublished thesis submitted to Nepal Commerce Campus, Faculty of Management, T.U. The objectives of his research are:

- To analyze and evaluate the cash flow management of the banks.
- To identify the strength and weakness of working capital management especially cash management of the financial institutions.
- To identify the causes of liquidity issues within the financial institutions with special reference to commercial banks.

## Recommendations

- Banks should attract deposit and mobilize the savings to generate higher cash flow.
- Investing activities should also be increased.
- Banks should increase their capital.

Kavita Pudasaini,(2010) presented thesis on " An analysis of Cash Management of Manufacturing Companies ( A Case Study of Bottlers Nepal Ltd. and Unilever Nepal Ltd.)", an unpublished thesis submitted to Shanker Dev Campus, Faculty of Management, T.U. She had conducted the research with the following objectives.

- To identify the liquidity position of the companies.
- To study the relationship of cash with sales, total assets, current assets etc.
- To provide necessary recommendation for improvement of cash management on the basis of analysis.

## Recommendations

- The study has identified that the selected manufacturing companies have not been maintaining optimum cash balance.
- Cash planning manager or expert should be appointed.
- Company should try to maintain considerable liquidity position so that it may be able to meet current obligation.

Ramnath Kandel, (2010) presented thesis on "**Cash flow Analysis of Salt Trading Corporation Limited**", an unpublished thesis submitted to Shanker Dev Campus, Faculty of Management, T.U. The major objectives of the study are as follows:

- To analyze the trend of cash flow of STC.
- To examine, analyze and compare the cash flow of different headings (i.e. operating, financing and investing)
- To identify the strengths and weaknesses of cash management of STC.
- To provide suggestions and recommendations for future improvement on cash flow and cash management.

## Recommendations

- Future contingencies and selective cash need should be estimated properly.
- Excess cash should be invested in short term liquid assets that can be converted into cash as per requirement.
- Past trend in different headings of cash flow should be analyzed to make future plans to handle cash in effective way.
- Investing activities should be planned because the need of cash can be managed at least cost, if so happens.
- Adequate cash should be kept in hand or as a liquid asset to handle yearly cash flow requirement which will help to maintain the goodwill.

## 2.4 Research Gap

Former researchers tend to be more informal to find out the actual cash management and cash flow position and performances of commercial banks. They seem to have mentioned only the increasing and decreasing trend of in cash flow. The financial information was not analyzed properly. Findings, conclusions and recommendations were not based on specific study they had conducted. The studies were conducted without using any financial or analytical tools which obviously help the researcher to reach the significant conclusion and recommendation.

But in this research, several financial tools were used to analyze the cash flow performance of the listed high performing commercial banks. In this research attempts were made to get credit, investment, deposit, liquidity, expenditure, income and capital related cash position of the Banks. The conclusion and recommendation were based on the findings.

# CHAPTER-III RESEARCH METHODOLOGY

## 3.1 Research Design

The present study followed the descriptive as well as analytical statistics procedure to meet the stated objectives. 'Descriptive studies are primarily concerned to find out 'What is?'. The secondary data collected from the annual financial reports of the related banks were analyzed. Few financial statements of the selected commercial banks were tabulated using spreadsheet.

## **3.2** Sources of Data

The research is based on secondary source of data. For research purpose, published financial statements (i.e. Annual report) of concerned banks were collected. Similarly, financial statement of selected commercial banks and various markets related information were collected and tabulated in spreadsheet. Such secondary information was gathered from the concerned banks.

## **3.3** Population and Sample of Survey Design

Only four sample commercial banks were taken out of twenty three commercial banks in this study. For selecting the samples, non-random sampling method was used. The samples were taken from commercial banks. The sampled commercial banks whose general introduction and major objectives were presented in chapter one are as follows:

- Standard Chartered Bank Nepal Ltd.
- NABIL Bank Ltd.
- Everest Bank Ltd.
- Bank of Kathmandu Ltd.

Likewise, financial statements of five years beginning from the fiscal year 2004/05 to 2008/09 were used.

## **3.4** Secondary Data Collection Techniques

Most of the secondary data and information were collected from the financial reports published by the banks in their annual reports each year. Cash flow statements, balance sheets, income statements, credit statements, investment statements, deposit statements and capital statements are the statements which were used in this study. Some of the statements published in the financial reports as annual reports of the banks were attached back side of this thesis in the form of appendix. The data and information from the financial report of the banks were analyzed by using different tools of ratio analysis to find out the actual cash flow condition and capacity of the banks.

## 3.5 Method, Tools and Techniques Employed

To meet the objectives of the study, the sources of secondary data of commercial bank were analyzed by using financial analysis tools such as ratio analysis. The various calculated results are then tabulated under different headings which are later on compared with each other to interpret the results. The details of calculation that cannot be shown in the body pat are presented in the appendices at the end. The following ratios were used for the study purpose:

In every bank, profitability is a major concern. Profit is the objective of all the policies framed and decisions taken by the management. Profitability ratios enable one to judge the overall performance of the corporation. Here, we analyze the following ratios of the sampled banks and make comparison of the results.

## i) Interest Income to Interest Expenses Ratio:

This ratio shows the relationship between interests earned amount and interest expenses made by the banks. Total interest earned is the amount which is earned by investing in different sectors by the Bank in an accounting year whereas interest expense is that amount which a bank has to pay to different parties having their deposits with the bank. This ratio is calculated as follows:

Total Interest Earned to Interest Expenses= $\frac{\text{Total Interest Earned}}{\text{Interest Expenses}}$ 

#### ii) Return on Loans and Advances Ratio:

Return on loans and advances ratio shows how efficiently banks and financial institutions have utilized their resources to earn good return through loans and advances. This ratio can be calculated as below:

Return on Loans and Advances= Net Profit or Loss Total Loans and Advances

#### iii) Return on Total Assets:

This ratio establishes the relationship between net profit and total assets. This ratio is also called 'profit to assets ratio'. It is calculated by dividing return on net profit/los by total working fund and can be expressed as :

Return on Assets= <u>
Net Profit after Tax</u> Total Assets

#### iv) Net Profit to Total Deposit Ratio:

Net Profit to total deposit ratio reflects the extent to which the banks are successful in mobilizing their deposits to earn profit. In this case, higher ratio is preferable. This ratio can be calculated as below:

Net Profit to Total Deposit= $\frac{\text{Net Profit}}{\text{Total Deposit}}$ 

#### v) Liquid Fund to Total Deposit Ratio:

The deposit constitutes the major parts of the bank liabilities. Flow of this liability is always uncertain in the bank's liquidity management. Hence, the ratio of liquid fund to total deposits indicates the bank's strength to meet uncertain outflow of deposit. This ratio can be calculated as:

Liquid Fund to Total Deposit Ratio= <u>Liquid Fund</u> Total Deposit

#### vi) Loans and Advances to Total Deposit Ratio:

Loans and advances is the major area of fund mobilization of commercial banks. Loans and advances to total deposits ratio measures the bank's ability to utilize the depositors' fund to earn profit by providing loans and advances. This ratio can be calculated as:

Loans and Advances to Total Deposit Ratio= $\frac{\text{Total Loans and Advances}}{\text{Total Deposit}}$ 

#### vii) Total Investment to Total Deposits Ratio:

This ratio measures the extent to which the banks are able to mobilize their deposit on investment in various securities. Higher ratio indicates the better liquidity position where as lower ratio indicates liquidity risks that may arise in future. The ratio can be calculated as:

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

#### viii) Cash and Bank Balance to Total Deposit Ratio:

This ratio is designed to measure the bank's ability cover the current deposit, saving deposit and call margin. This ratio is calculated as:

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

#### ix) Balance with NRB to Total Deposit Ratio

This ratio indicates the proportion of balance with NRB on total deposit. It is used to measure the liquidity position of commercial banks and their capacity to pay depositors' amount promptly. NRB is the regulatory body of all commercial banks. It has compelled the banks to hold a certain percentage of their total deposits as a reserve in order to maintain the strength of commercial banks regarding the liquidity position. This ratio can be calculated as :

Balance with NRB to Total Deposit Ratio= $\frac{\text{Balance with NRB}}{\text{Total Deposit}}$ 

## **3.6** Practice of Cash Flow Statement

Cash Flow Statement: The flow of cash is categorized as:

- Flow "in" from Operations
- (cash the company made by selling goods and services)
- Flow "in" from Financing
- (cash the company raised by selling stocks and bonds)
- Flow "out" to investing
- (cash the company spent investing in its future growth)

Each of these flows can actually flow both ways cash in and cash out. Investors like to see that the company can cover its spending with cash from operations, without requiring to turn to financing. The cash flow statement also needs to reconcile the net effect of these flows with the difference in its cash holdings at the beginning and end dates of the reporting period.

#### **Cash Flow Statement as Per International Accounting Standard**

Cash basis financial statements were common before accrual basis financial statements. The "flow of funds" statements were used in the past instead of cash flow statements.

In the United States in 1971, the Financial Accounting Standards Board (FASB) defined rules that made it mandatory under Generally Accepted Accounting Principles (US GAAP) to report sources and uses of funds, but the definition of "funds" was not clear. "Net working capital" might be cash or might be the difference between current liabilities and current assets. From the late 1970 to the mid-1980s, the FASB discussed the usefulness of

predicting future cash flows. In 1987, FASB Statement No. 95 (FAS 95) mandated that firms shall provide cash flow statements. In 1992, the International Accounting Standards Board issued International Accounting Standard 7 (IAS 7), Cash Flow Statements, which became effective in 1994, mandating that firms shall provide cash flow statements. (www. wikipedia.com)

US GAAP and IAS 7 rules for cash flow statements are similar. The differences between US GAAP and IAS 7 standards for some items to be incorporated in cash flow statement are as follows:

- IAS 7 requires that the cash flow statement include changes in both cash and cash equivalents. US GAAP permits using cash alone or cash and cash equivalents.
- IAS 7 permits bank borrowings (overdraft) in certain countries to be included in cash equivalents rather than being considered a part of financing activities.
- IAS 7 allows interest paid to be included in operating activities or financing activities. US GAAP requires that interest paid be included in operating activities.
- US GAAP (FAS 95) requires that when the direct method is used to present the operating activities of the cash flow statement, a supplemental schedule must also present a cash flow statement using the indirect method. The IASC strongly recommends the direct method but allows either method. The IASC considers the indirect method less clear to users of financial statements. Cash flow statements are most commonly prepared using the indirect method, which is not especially useful in projecting future cash flows. (www.wikipedia.com)

## 3.7 Financial Statement

Financial statements are organized summaries of certain time period detailed financial transaction, position and performance of an organization for certain time period. The documents analyzed beside cash flow statement, financial statements analyzed in this study are:

**Balance Sheet:** is an accounting report which shows the actual figure of quality of assets and share holders fund/capital, and total liabilities within certain accounting period of an organization. Comparative Balance Sheets of the selected commercial banks within the study period were presented in differently to observe the comparative changes in the figures of their balance sheet.

*Income Statement*: is an accounting report which shows the total revenue and expenditures with total profit or loss of certain accounting period of an organization.

## 3.8 Statistical Analysis Tools

The various statistical tools used in this study to analyze the collected data are as follows:

#### **Arithmetic Mean**

The average value is a single value within the range of data that is used to represent all the values in the series. Since an average is somewhere within the range of data, it is also called a measure of central value. The value of arithmetic mean is obtained by adding together all the terms and dividing the total by the number of times. The formula to calculate mean is given by,

$$\overline{x}=\frac{\Sigma x}{N}$$

Where,

 $\bar{\mathbf{x}} = \text{Arithmetic Mean}$ 

 $\Sigma x =$  Sum of all values of the variable 'x'

N = Number of the observation

#### **Standard Deviation (S.D)**

The standard deviation is the absolute measure of dispersion. The greater standard deviation will be magnitude of the deviation of the values from their mean. It is said that the higher value of standard deviation the higher the variability and vice versa. The formula to calculate the Standard Deviation is as below:

$$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{N}}$$

Where,

 $\sigma$  = Standard Deviation

 $\sum (x - \bar{x})^2$  = Sum of squares of the deviations measured from the arithmetic average N= Number of Items

#### **Coefficient of Variation (C.V)**

The coefficient of variation is the corresponding relative measure of dispersion comparable across distribution which is defined as the ration of the standard deviation to the mean expressed in resulting percentage. It is used in such problem where we want to compare the variation. The series for which coefficient of variation is greater is said to be more variable or conversely less consistent, less uniform, less stable or less homogeneous and vice versa. We have the following formula to calculate the coefficient of variation.

$$C.V = \frac{\sigma}{\overline{x}}$$

Where,

C. V = Coefficient of Variation

 $\sigma$  = Standard Deviation

 $\bar{\mathbf{x}} = \text{Mean or Average}$ 

#### **Trend Analysis**

Trend analysis describes the average relationship between two series where one series is related to time and other series to the value available. Trend analysis is also denoted by least square linear trend analysis. It gives the best possible mean values of dependent variable for a given value of independent variable. Under this topic, trend of total deposits, total investment and total profit will be studied.

#### Least square method

This is one commonly used method to describe the trend. The straight line trend between the dependent variable 'y' and independent variable 'x' (i.e. time) is represented by the equation

Yc = a + bx

Where,

Yc = Estimated value of 'y'

a= y-intercept of value of 'y' when x=0

b= slope of the trend line or amount of change in 'y' per unit in x

## 3.9 Analysis of Cash Flow Activities

It is very important to **analyze** cash flow activities and its overall impact on cash generation. Accordingly the researcher attempted to analyze cash flow activities in different years from cash flow of all the banks. All the data has been presented in the appendix, this section only presents the interpretations.

# CHAPTER – IV DATA PRESENTATION AND ANALYSIS

# 4.1 Financial Ratios

The financial ratios have been presented as follows.

## 4.1.1 Interest Income to Interest Expenses Ratio

The ratio of interest income to interest expenses measures the gap between interest rates offered and interest rates charged. Since NRB has restricted the gap between the interest offered and interest charged, on average not to be more than 5%, the difference in this ratio is mainly caused by the ratio of fund mobilized and fund collected. The credit creation power of commercial banks has high impact on this ratio. We have,

Total Interest Earned to Interest Expenses =  $\frac{\text{Total Interest Earned}}{\text{Interest Expenses}}$ 

The following table shows the interest income to interest expenses ratios of NABIL, SCBNL, BOK and EBL during the study period.

Year	Banks			
	NABIL	SCBNL	BOK	EBL
2004/05	4.39	4.17	2.51	2.40
2005/06	3.67	3.92	2.33	2.25
2006/07	2.86	3.42	2.41	2.21
2007/08	2.61	3.37	2.48	2.45
2008/09	2.43	3.47	2.39	2.16
Mean	3.19	3.67	2.42	2.29
S.D	0.73	0.32	0.06	0.06
C.V	22.88%	8.72%	2.48%	3.00%

 Table No. 4.1

 Comparative analysis of Interest Earned to Interest Expenses Ratio

Source: Appendix I

The following figure shows the interest income to interest expenses ratios of NABIL, SCBNL, BOK and EBL during the study period.

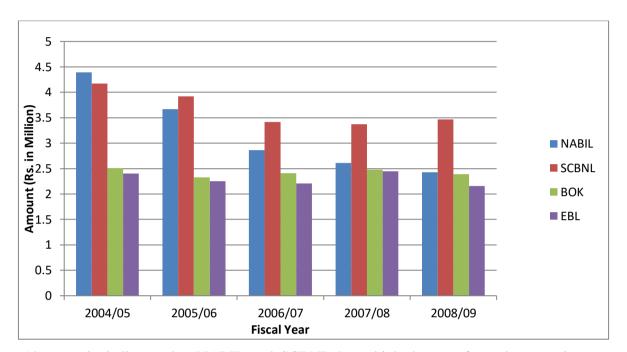


Figure No. 4.1 Comparative analysis of Interest Income to Interest Expenses Ratio

Above ratio indicates that NABIL and SCBNL have high degree of gap between interest offered and interest charged.NABIL and SCBNL are charging high interest to the borrowers and offering low interest rate to the depositors. The increased volume of fixed deposits and high interest rate paid there on has caused NABIL's ratio to fall in year 2007/08 i.e. 3.37. the highest cost of deposits and low volume of non-interest bearing deposits of EBL has caused the gap between interest income and interest expenses to be the least.

On average study, SCBNL has highest ratio 4.39 followed by SCBNL i.e. 3.92. BOK and EBL's highest ratios are 2.48 in 2007/08 and 2.40 in 2004/05 respectively. C.V analysis shows that SCBNL seems to have less consistency and EBL has high consistency.

## 4.1.2 Net Profit to Loans and Advances Ratio

Net profit to loans and advances ratio reflects to which extent the banks are successful in mobilizing the loans and advances to earn profit. The ratio reveals the profit generating capacity of commercial banks through loans and advances. Higher ratio is preferable. We have,

Return on Loans and Advances= Net Profit or Loss Total Loans and Advances Net profit to loan and advances ratios of NABIL, SCBNL, BOK and EBL during the study period are presented in the table below.

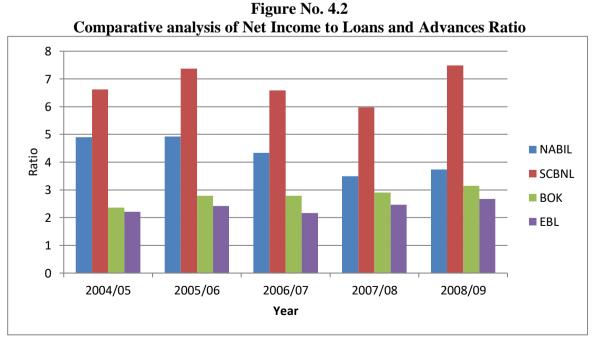
Year —	Banks				
	NABIL	SCBNL	BOK	EBL	
2004/05	4.9	6.62	2.36	2.21	
2005/06	4.92	7.37	2.79	2.42	
2006/07	4.34	6.59	2.79	2.17	
2007/08	3.49	5.97	2.9	2.46	
2008/09	3.74	7.49	3.15	2.67	
Mean	4.28	6.81	2.8	2.39	
S.D	0.58	0.56	0.25	0.18	
C.V	13.55%	8.22%	8.93%	7.53%	

 Table No. 4.2

 Comparative analysis of Net Income to Loans and Advances Ratio

Source: Appendix I

The figure below shows the Net Income to Loans and Advances Ratio of the sampled banks from the year ended 2004/05 to 2008/09.



Above table and figure show the net profit to loan and advances ratio of NABIL, SCBNL, BOK and EBL comparatively. SCBNL has the highest ratio i.e. 7.49 in year 2009 and lowest ratio of 5.97 in year 2008. Likewise, NABIL, BOK and EBL have highest ratios of 4.92,3.15 and 2.67 in year 2006,2009 and 2009 respectively and have lowest ratios of 3.49,2.36 and 2.21 in year 2008,2005 and 2005 respectively.

The performance of SCBNL seems to be the best with mean ratio of 6.81. This implies that it is successful to earn profit through loans and advances. NABIL, BOK and EBL have mean ratios of 4.28, 2.80 and 2.39 respectively. On the basis of C.V analysis, EBL's performance seems to be more consistent than other banks.

#### 4.1.3 Net Profit to Total Assets Ratio (Return on Assets)

This ratio is useful in measuring the profitability of financial resource invested in the firm's assets. It is used for evaluating the total funds or investment of the company. The return on assets or profit to assets ratio is calculated by dividing the net profit by the amount of total assets employed. We have,

Return on Assets= <u>Net Profit after Tax</u> <u>Total Assets</u>

Net profit to total assets ratios of NABIL, SCBNL, BOK and EBL during the study period are presented in the table below.

Year	Banks			
	NABIL	SCBNL	BOK	EBL
2004/05	3.02	2.46	1.41	1.43
2005/06	2.84	2.56	1.65	1.49
2006/07	2.47	2.42	1.8	1.38
2007/08	2.01	2.46	2.04	1.66
2008/09	2.35	2.53	2.25	1.73
Mean	2.54	2.49	1.79	1.54
S.D	0.35	0.05	0.24	0.13
C.V	13.78%	2.05%	13.41%	8.44%

 Table No. 4.3

 Comparative analysis of Net Profit to Total Assets Ratio

Source: Appendix I

The following figure shows the Net profit to total assets ratios of NABIL, SCBNL, BOK and EBL during the study period.

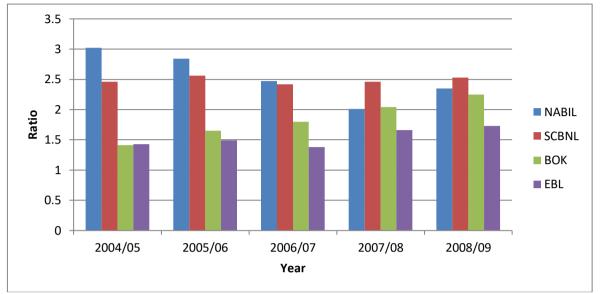


Figure No. 4.3 Comparative analysis of Net Profit to Total Assets Ratio

The above table shows the net profit earned to total assets ratio of NABIL, SCBNL, BOK and EBL comparatively. The ratio ranges from 1.38 of EBL in 2007 to 3.01 of NABIL in the year 2005. The ratio of NABIL is in increasing trend which implies that the bank is successful in generating the profit by investing the firm's resources. EBL has the lowest ratio throughout the study period among the sampled banks. It shows that the bank's capacity to utilize the financial resources is very low to generate the profit.

Measuring the average ratio, the mean ratio of NABIL is 2.54 and is the highest ratio, SCBNL. BOK and EBL have 2.49, 1.79 and 1.54 respectively. The mean ratio shows that NABIL's performance is the best. According to C.V analysis, SCBNL seems more consistent with 2.05%. NABIL, BOK and EBL have 13.78%, 13.41% and 8.44% respectively which shows that NABIL has highest inconsistency.

## 4.1.4 Net Profit to Total Deposits Ratio

Net Profit to Total Deposits ratio reflects the extent to which the banks are successful in mobilizing their deposits to earn profit. Higher ratio is preferable. We have,

Net Profit to Total Deposit=
$$\frac{\text{Net Profit}}{\text{Total Deposit}}$$

Net Profit to total deposit ratios of NABIL, SCBNL, BOK and EBL during the study period are presented in the table below.

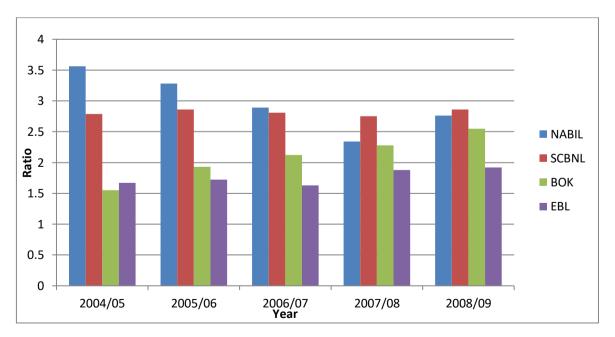
Year	Banks			
	NABIL	SCBNL	ВОК	EBL
2004/05	3.56	2.79	1.55	1.67
2005/06	3.28	2.86	1.93	1.72
2006/07	2.89	2.81	2.12	1.63
2007/08	2.34	2.75	2.28	1.88
2008/09	2.76	2.86	2.55	1.92
Mean	2.96	2.81	2.09	1.76
S.D	0.42	0.04	0.33	0.12
C.V	14.19%	1.42%	15.79%	6.82%

Table No.4.4Comparative analysis of Net Profit to Total Deposits Ratio

Source: Appendix I

The following figure shows the Net profit to total deposits ratios of NABIL, SCBNL, BOK and EBL during the study period.

Figure No.4.4 Comparative analysis of Net Profit to Total Deposits Ratio



The above table and figure shows the net profit to total deposit ratios of NABIL, SCBNL, BOK and EBL comparatively. During the study period, NABIL has the highest ratio of

3.55 in year 2005 and lowest ratio of 2.34 in 2008. Similarly, SCBNL, BOK and EBL have highest ratios of 2.86, 2.55 and 1.92 in year 2006, 2009 and 2009 respectively and they have lowest ratios of 2.75, 1.56 and 1.63 in year 2008, 2005 and 2007 respectively.

Measuring the average, NABIL has the highest ratio of 2.96 while the mean ratios of SCBNL, BOK and EBL are 2.81, 2.09 and 1.76 respectively. It shows that NABIL's performance is the best.

On the basis of C.V analysis, it is seen that SCBNL has more consistency than other sampled banks.

## 4.1.5 Liquid Fund to Total Deposits Ratio

The deposit constitutes the major part of the bank's liability. Flow of the liability is always certain in the bank's liquidity management. Hence, the ratio of liquid fund to total deposits indicates the bank's strength to meet uncertain outflow of deposit. We have,

Liquid Fund to Total Deposit Ratio= <u>Liquid Fund</u> Total Deposit

Liquid fund to total deposit ratios of NABIL, SCBNL, BOK and EBL during the study period are presented in the table below.

Year	Banks				
	NABIL	SCBNL	BOK	EBL	
2004/05	9.79	17.43	11.91	16.04	
2005/06	12.22	14.11	12.62	11.74	
2006/07	8.41	15.35	12.71	13.15	
2007/08	14.49	14.28	9.56	12.57	
2008/09	10.51	14.48	13.25	18.5	
Mean	11.08	15.13	12.01	14.4	
S.D	2.4	1.22	1.3	6.3	
C.V	21.66%	8.06%	10.82%	43.75%	

Table No. 4.5Comparative analysis of Liquid Fund to Total Deposits Ratio

<u>Source: Appendix I</u>

The figure below shows the liquid fund to total deposit ratios of NABIL, SCBNL, BOK and EBL during the study period.

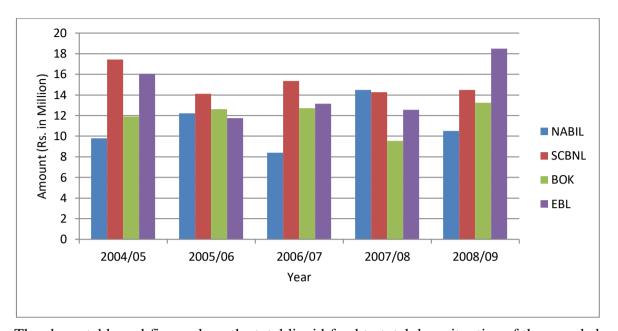


Figure No. 4.5 Comparative analysis of Liquid Fund to Total Deposits Ratio

The above table and figure show the total liquid fund to total deposit ratios of the sampled banks comparatively. SCBNL has the highest ratio on an average than other banks i.e. 15.13. The ratio has ranged from 8.41 of NABIL in the year 2007 to 18.50 of EBL in year 2009. The mean ratios of NABIL, BOK and EBL IS 11.08, 12.01 and 14.40 respectively EBL's S.D is highest among the banks i.e. 6.30 which implies that it fluctuates more than other banks. Measuring the C.V, SCBNL seems to have more consistency and has lower chance of risk.

#### 4.1.6 Loan and Advances to Total Deposits Ratio

Loans and advances is the major area of fund mobilization of commercial banks. Loans and advances is the first type of application of funds, which is more risky as compared to other type of investment. This ratio measures the bank's ability to utilize the depositors' fund to earn profit by providing loans and advances. This ratio is computed by dividing loan and advances by total deposits. We have,

Loans and Advances to Total Deposit Ratio= Total Loans and Advances Total Deposit

In this study, loans and advances refer to total of loan, advances, cash, credit, local and foreign bills purchased and discounted and total deposits refer to the total of all kinds of deposits.

Generally, a higher ratio reflects higher efficiency to utilize depositors' fund. Loan and advances to total deposit ratios of NABIL, SCBNL, BOK and EBL during the study period are presented in the table below.

Year	Banks			
	NABIL	SCBNL	BOK	EBL
2004/05	72.57	42.12	65.87	75.45
2005/06	66.79	38.75	69.23	71.01
2006/07	66.6	42.61	75.87	75.13
2007/08	66.94	46.12	78.71	76.49
2008/09	73.87	38.14	81	71.68
Mean	67.9	41.55	74.14	73.95
S.D	2.34	2.89	5.72	2.19
C.V	3.45%	6.96%	7.72%	2.96%

 Table No.4.6

 Comparative analysis of Loan and Advances to Total Deposits Ratio

Source: Appendix I

The following figure shows the loan and advances to total deposit ratios of NABIL, SCBNL, BOK and EBL during the study period.

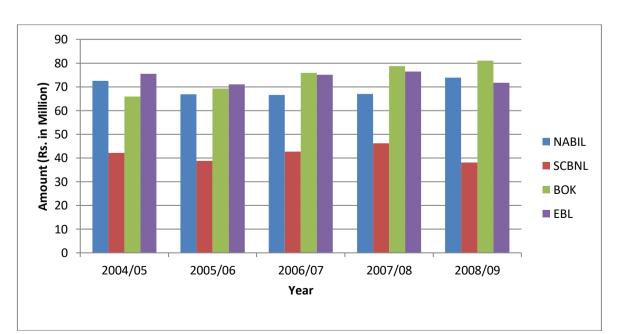


Figure No.4.6 Comparative analysis of Loan and Advances to Total Deposits Ratio

Above table shows the loan and advances ratios of NABIL, SCBNL, BOK and EBL comparatively. BOK has the highest ratio comparatively up to the year 2009. SCBNL has the lowest ratio throughout the 5 years study period. Measuring the overall performance on an average, SCBNL seems to be the best with the mean ratio of 41.55. NABIL, BOK and EBL have mean ratios of 67.9, 74.14 and 73.95 respectively. On the basis of C.V. analysis, NABIL seems to be more consistent than other three sampled banks.

#### 4.1.7 Total Investment to Total Deposits Ratio

A commercial bank mobilizes its deposits by investing its fund in different securities issued by government and other financial and non-financial companies. This ratio measures the extent to which the banks are able to mobilize their deposits on investment in various securities. A high ratio indicates the success in mobilizing deposits in securities and vice-versa. We have,

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

Total investment to total deposit ratios of NABIL, SCBNL, BOK and EBL during the study period are presented in the table below.

Year	Banks			
	NABIL	SCBNL	BOK	EBL
2004/05	29.25	50.18	28.95	21.08
2005/06	31.93	55.71	32.18	30.43
2006/07	38.32	54.99	24.15	27.41
2007/08	31.14	46.74	20.24	21.1
2008/09	28.99	56.41	15.39	17.85
Mean	31.93	52.81	24.18	23.57
S.D	3.37	3.75	5.99	4.62
C.V	10.55%	7.10%	24.77%	19.60%

 Table No. 4.7

 Comparative analysis of Total Investment to Total Deposits Ratio

Source: Appendix I

The figure below shows the total investment to total deposit ratios of NABIL, SCBNL, BOK and EBL during the study period.

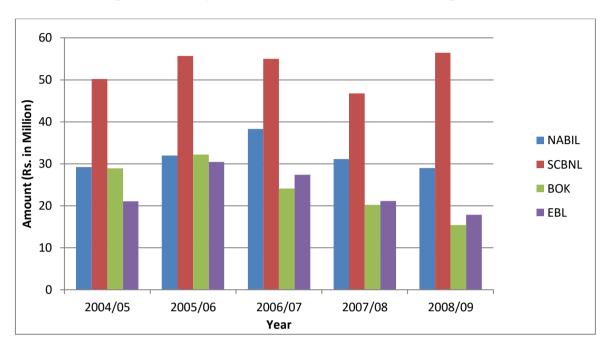


Figure No. 4.7 Comparative analysis of Total Investment to Total Deposits Ratio

Above table and figure show the total investment to total deposit ratios of NABIL, SCBNL, BOK and EBL comparatively. It can be said that all the banks have fluctuating trend of ratio under the study period. As the study of mean ratios show, NABIL, BOK and EBL are not as successful as SCBNL in deposit mobilization. The mean ratios of NABIL, BOK and EBL i.e. 31.94, 24.18 and 23.57 respectively are less than that of SCBNL i.e. 52.79.On the basis of C.V analysis, SCBNL seems to be highly consistent than other sampled banks. It has lower chance of risk. It can be concluded that NABIL, BOK and EBL are not much successful in mobilizing the collected deposits in investment as SCBNL.

#### 4.1.8 Cash and Bank Balance to Total Deposits Ratio

This ratio reflects whether the cash and bank balance is sufficient to cover the current deposit, saving deposit and call margin. It is calculated as below.

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

In this study, cash and bank balance includes cash in hand, foreign cash in hand, cheques and other cash items, balance with domestic bank and balance held abroad. The total deposits include current deposits, saving deposits, fixed deposits, money at call and short notice and other deposits. Depositors wouldn't withdraw the total deposits at a time, so a certain margin of cash is kept by the bank. If the ratio is higher there is higher liquidity. Similarly, lower ratio indicates lower liquidity.

Cash and bank balance to total deposits ratios of NABIL, SCBNL, BOK and EBL during the study period are presented in the table below.

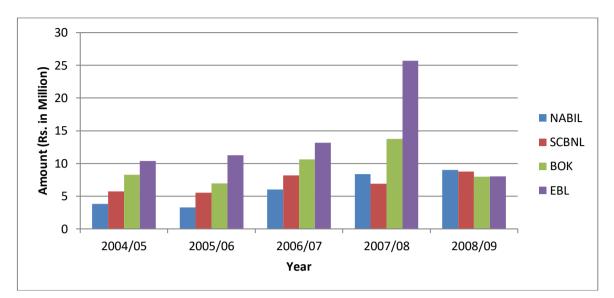
Year -	Banks						
iear –	NABIL	SCBNL	ВОК	EBL			
2004/05	3.83	5.75	8.25	10.4			
2005/06	3.26	5.53	6.95	11.25			
2006/07	6.00	8.2	10.62	13.15			
2007/08	8.37	6.89	13.78	25.71			
2008/09	9.03	8.77	7.97	8.01			
Mean	6.1	7.03	9.51	13.7			
S.D	2.32	1.29	2.45	6.23			
C.V	38.03%	18.35%	25.76%	45.47%			

Table No. 4.8Comparative analysis of Cash and Bank Balance to Total Deposits Ratio

Source: Appendix I

The figure below shows the cash and bank balance to total deposits ratios of NABIL, SCBNL, BOK and EBL during the study period.

Figure No. 4.8 Comparative analysis of Cash and Bank Balance to Total Deposits Ratio



Above table and figure show the cash and bank balance to total deposit ratios of NABIL, SCBNL, BOK and EBL comparatively. It shows the bank's capacity to meet unanticipated calls on total deposit.EBL has the highest ratio during the study period till 2007/08. The mean ratio of EBL is 13.7 and its S.D is the highest i.e. 6.23 which shows the highest fluctuating trend. SCBNL and BOK also have maintained higher ratios on an average with 7.03 and 9.51 respectively. NABIL's mean ratio is 6.1 which is the lowest among the sampled banks.

On the basis of C.V analysis, the chance of risk fluctuation is higher with EBL where as SCBNL has lower chance of risk.

### 4.1.9 Balance with NRB to Total Deposits Ratio

This ratio indicates the proportion if balance with NRB in total deposit. It is used to measure the liquidity position of commercial banks and capacity to pay depositors' amount promptly. NRB is the regulatory body of all commercial banks. In order to enable smooth functioning of the commercial banks, NRB has compelled them to hold a certain percentage of their total deposit as reserve. This is particularly done in order to maintain the strength of commercial banks regarding the liquidity position. This ratio can be calculated as below.

Balance with NRB to Total Deposit Ratio= $\frac{\text{Balance with NRB}}{\text{Total Deposit}}$ 

Balance with NRB to Total Deposit ratios of NABIL, SCBNL, BOK and EBL during the study period are presented in the table below.

<b>T</b> 7	Banks							
Year	NABIL	SCBNL	ВОК	EBL				
2004/05	2.67	3.58	4.66	7.72				
2005/06	1.65	3.25	3.33	8.26				
2006/07	4.77	6.55	7.13	6.48				
2007/08	5.73	4.26	3.83	4.51				
2008/09	7.09	5.16	7.32	14.37				
Mean	4.38	4.56	4.79	8.27				
S.D	1.98	1.19	1.37	2.9				
C.V	45.21%	26.10%	29.60%	35.07%				

Table No. 4.9Comparative analysis of Balance with NRB to Total Deposits Ratio

Source: Appendix I

The figure below shows the balance with NRB to total deposits ratios of NABIL, SCBNL, BOK and EBL during the study period.

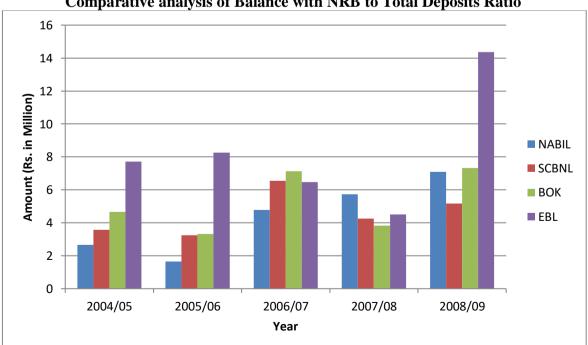


Figure No. 4.9 Comparative analysis of Balance with NRB to Total Deposits Ratio

The above table and figure shows the balance with NRB to total deposits ratios of NABIL, SCBNL, BOK and EBL. The average ratio of NABIL is 4.38. The highest ratio of NABIL is 7.09 in the year 2009 while its lowest ratio is 1.65 in the year 2006. On an average, the ratio of EBL is more than NABIL, SCBNL and BOK. The highest ratio of EBL is 14.37 in the year 2009 and lowest ratio is 4.51 in the year 2008. The average ratio of EBL is 8.27% which implies that out of the total deposits, EBL maintains 8.27% fund in NRB as reserve which can be used when required. The average ratio of NABIL, SCBNL and BOK are 4.38%, 4.56% and 4.79% respectively. C.V analysis shows that NABIL is more consistent than other banks.NRB has determined the ratio of balance with NRB to total deposits as 7%. During the study period, only EBL has maintained the standard. NABIL, SCBNL and BOK have the ratios below 5% which shows that their liquidity position is satisfactory.

### 4.2 Relationship of Liquidity with Profitability

The sole objective behind the establishment of commercial banks is to earn profit. Ability to earn from maximum use of available resources by the organization is known as profitability. It is the measure of efficiency and the search for it provides an incentive to achieve efficiency. Profit is the indicator of an efficient operation of the commercial banks. They acquire profit by providing different services to its customers or by making investment of different kinds. Sufficient profit is must to have good liquidity, grab investment opportunities, expand transaction, finance government in need of development fund, to overcome the future contingencies and meet fixed internal obligations of the banks.

Here we must distinguish liquidity from profitability. Profitability is a measure if operating performance whereas liquidity is a measure of financial condition. It is possible for an enterprise to be profitable and yet unable to pay its current obligations. The comparative analysis of liquidity and profitability with respect to total deposits of the sampled banks are presented in the table below.

	Fiscal Year								
Banks		2004/05	2005/06	2006/07	2007/08	2008/09			
	Liquidity	9.79	12.22	8.41	14.49	10.51			
NABIL	Profitability	3.56	3.28	2.89	2.34	2.76			
	Liquidity	17.43	14.11	15.35	14.28	14.48			
SCBNL	Profitability	2.79	2.86	2.81	2.75	2.86			
	Liquidity	11.91	12.62	12.71	9.56	13.25			
BOK	Profitability	1.55	1.93	2.12	2.28	2.55			
	Liquidity	16.04	11.74	13.15	12.57	18.50			
EBL	Profitability	1.67	1.72	1.63	1.88	1.92			

Table No. 4.10Total Liquidity and Profitability/Losses to Total Deposit

The table presented above shows the percentage of liquidity and profitability to total deposit of sampled commercial banks. Banks keep certain liquidity to meet their various financial obligations and for their day to day operation as well. Having right amount of liquidity at the right time and at the right place is very essential for banks.

The table suggests that SCBNL is the bank with good liquidity among the sampled banks. It has maintained relatively the high amount of liquidity throughout the study period. It has liquidity of 17.43, 14.11, 1.35, 14.28 and 14.48 in fiscal year 2005, 2006, 2007, 2008 and 2009 respectively. SCBNL has been consistently maintaining the profitability as well. From the profitability point of view, NABIL has been earning a consistent level of profit throughout the study period. It has profitability of 3.56, 3.28, 2.89, 2.34 and 2.76 in fiscal year 2005, 2006, 2007, 2008 and 2009 respectively. Profitability of BOK is in increasing trend while its liquidity seems to be fluctuating. EBL's liquidity was in decreasing trend till fiscal year 2007/08 but in 2008/09 it has increased up to 18.50 which is preferable.

### 4.3 Trend Analysis

Trend analysis is very useful in terms of both commercial banks and to the shareholders. Through analysis, banks can estimate the future investment, deposits, profit, opportunities etc. For shareholders, trend analysis helps to decide whether to invest on the bank or not as per the satisfaction of the growth rate. Under this topic, trend analysis of deposit collection, its utilization and net profit of NABIL, SCBNL, BOK and EBL are studied. To utilize deposits, a commercial bank may grant loan and advances and invest in government securities and share and debentures of other companies. Here, an attempt is made to analyze the trend of deposit, investment and income of NABIL, SCBNL, BOK and EBL and also forecast their trend for next five years. The projections are based on the following assumptions.

- Other things will remain unchanged. This is the main assumption.
- The forecast will be true only when the limitation of least square method is carried out.
- The bank will run in the present position.
- The economy will remain in the present stage.
- NRB will not change its guidelines to commercial banks.

### **Trend Analysis of Total Deposit**

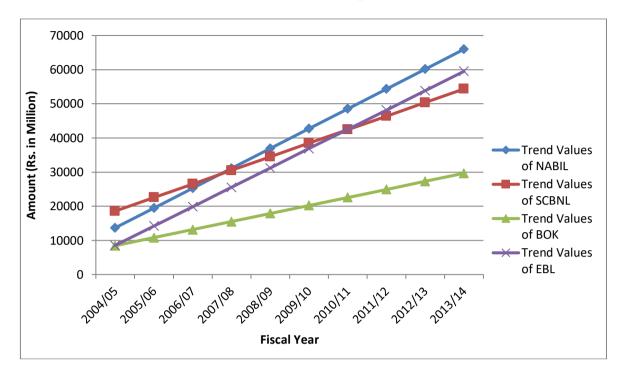
Deposit is one of the very sensitive liabilities of commercial banks. Its trend behaviors are determined by various seasonal and cyclical factors. The following table describes the trend values of total deposit of NABIL, SCBNL, BOK and EBL.

	-		Rs. in million
Trend Value of NABIL	Trend Value of SCBNL	Trend Value of BOK	Trend Value of EBL
13689.72	18580.53	8440.6	8552.25
19498.82	22556.06	10797.08	14214.69
25307.92	26531.59	13153.56	19877.13
31117.02	30507.12	15510.04	25539.57
36926.12	34482.65	17866.52	31202.01
42735.22	38458.18	20223	36864.45
48544.32	42433.71	22579.48	42526.89
54353.42	46409.24	24935.96	48189.33
60162.52	50384.77	27292.44	53851.77
65971.62	54360.3	29648.92	59514.21
	of NABIL           13689.72           19498.82           25307.92           31117.02           36926.12           42735.22           48544.32           54353.42           60162.52	of NABILof SCBNL13689.7218580.5319498.8222556.0625307.9226531.5931117.0230507.1236926.1234482.6542735.2238458.1848544.3242433.7154353.4246409.2460162.5250384.77	of NABILof SCBNLof BOK13689.7218580.538440.619498.8222556.0610797.0825307.9226531.5913153.5631117.0230507.1215510.0436926.1234482.6517866.5242735.2238458.182022348544.3242433.7122579.4854353.4246409.2424935.9660162.5250384.7727292.44

# Table No. 4.11Trend Values of Deposits

Source: Appendix II

Figure No. 4.10 Trend Values of Deposits



The above table and chart show the trend behaviors of total deposits in NABIL, SCBNL, BOK and EBL. From the first year of the trend, SCBNL poses the highest area among the four banks. If other things remain the same, the total deposit of NABIL will be 65971.62 million in FY 2013/14 which is the highest deposit. Similarly, the deposits of SCBNL, BOK and EBL will be 54360.3 million, 29648.92million and 59514.21 million respectively in the FY 2013/14.

The slope of NABIL shows a high degree of increase than that of other three banks and its ability to maintain high growth rate in collecting deposits.

### **Trend Analysis of Total Investment**

A commercial bank mobilizes its deposit by investing its fund in different sectors. The following table describes the trend values if investment of NABIL, SCBNL, BOK and EBL.

				Rs. in million
Fiscal Year	Trend Value NABIL	Trend Value of SCBNL	Trend Value of BOK	Trend Value of EBL
2004/05	4660.52	9623.97	2950.59	2764.74
2005/06	6346.81	11836.21	2970.6	3614.55
2006/07	8033.1	14048.45	2990.61	4464.36
2007/08	9719.39	16260.69	3010.62	5314.17
2008/09	11405.68	18472.93	3030.63	6163.98
2009/10	13091.97	20685.17	3050.64	7013.79
2010/11	14778.26	22897.41	3070.65	7863.6
2011/12	16464.55	25109.65	3090.66	8713.41
2012/13	18150.84	27321.89	3110.67	9563.22
2013/14	19837.13	29534.13	3130.68	10413.03

Table No. 4.12Trend Values of Investment

Source: Appendix II

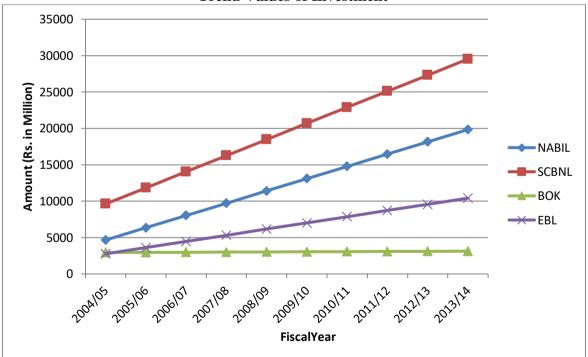


Figure No. 4.11 Trend Values of Investment

The above table and figure show the total investment of NABIL, SCBNL, BOK and EBL. It shows that the total investment of NABIL, SCBNL and EBL is in increasing trend while BOK has constant trend values till the entire projection period. Other things remaining the same, the total investment of SCBNL will be 29534.13 million in the F/Y 2013/14 which is

the highest investment among the four banks. Similarly, the investment of NABIL, BOK and EBL will be 19837.13 million, 3130.68 million and 10413.03 million respectively in F/Y 2013/14. The trend analysis shows that the total investment of SCBNL is higher as compared to other banks. The calculated trend values of total investment of NABIL, SCBNL, BOK and EBL are fitted in the trend line.

### **Trend Analysis of Net Profit**

Under this topic, the trend values of net profit for five years have been calculated and forecasted for next five years.

The following table shows the trend values of net profit for ten years of NABIL, SCBNL, BOK and EBL.

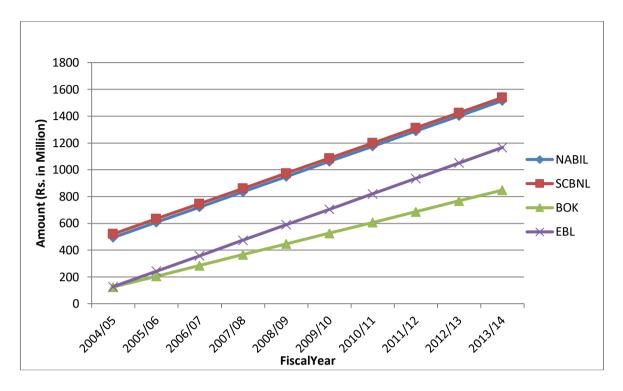
				K5. III IIIIIIU
Fiscal Year	T Trend Value of NABIL	Trend Value of SCBNL	Trend Value of BOK	Trend Value of EBL
2004/05	493.88	520.34	124.82	127.37
2005/06	607.48	633.54	205.17	242.87
2006/07	721.08	746.74	285.52	358.37
2007/08	834.68	859.94	365.87	473.87
2008/09	948.28	973.14	446.22	589.37
2009/10	1061.88	1086.34	526.57	704.87
2010/11	1175.48	1199.54	606.92	820.37
2011/12	1289.08	1312.74	687.27	935.87
2012/13	1402.68	1425.94	767.62	1051.37
2013/14	1516.28	1539.14	847.97	1166.87
4 1	• • • •			

# Table No. 4.13Trend Values of Net Profit

Rs. in million

Source: Appendix II

Figure No. 4.12 Trend Values of Net Profit



The above table and figure show that the net profit of NABIL, SCBNL, BOK and EBL is in increasing trend. Other things remaining the same, the net profit of SCBNL will be 1539.14 million in the F/Y 2013/14 which is the highest among the sampled banks during the study period. Similarly, the net profit of NABIL, BOK and EBL will be 1516.28 million, 847.97 million and 1166.87 million respectively. From the above trend analysis, it is found that the net profit of SCBNL is the highest followed by the trend of NABIL. The calculated trend values of net profit of the sampled banks are fitted in the trend line.

### 4.4 Analysis of Cash Flow Studies

It is very important to analysis cash flow activities and its overall impact on cash generation. Accordingly the researcher attempted to analyze cash flow activities in different years from cash flow of all the banks. All the data has been presented in the appendix, this section only presents the interpretations.

**NABIL** In 2005/06 though there is positive cash flow the cash generation through operating activities is negative (1,030,740) which is not good for the organization. In FY 2008/09 the cash flow from operating activities in 1,725,547 which is the major contribution to the net cash flow for this year.

**SCBNL** has negative cash flows from operating activities in the F/Y 2005/06 and 2007/08 i.e (658,563) and (45,234) respectively. However in the year 2008/09, the operating cash flow of SCBNL is 6,948,938 which have significantly increased the current year's total cash flow.

**BOK** has negative cash flow from operating activities in the FY 2004/05. But in all the fiscal years it has been able to gain positive cash flow from operating activities which is good for the business.

**EBL** has positive operating cash flow throughout the entire study period which shows that EBL's cash management is better than the other sampled banks. In FY 2008/09 the cash flow from operating activities is 3,695,545 which is the major contribution for that year's net cash flow.

## 4.5 Major Findings of the Study

Some major findings have been extracted from the analysis. The following points present a comprehensive summary to the main findings of the study.

- 1 Liquid fund to total deposit ratio measures the banks' strength to meet the uncertain outflow of deposit. SCBNL has the highest mean ratio. Overall analysis of this ratio indicates that SCBNL can survive better than other three banks in adverse condition. The calculation of liquidity of SCBNL shows the high liquidity ratio maintained by this bank.
- 2 Measuring the cash and bank balance to total deposits ratio on an average, EBL has the highest ratio i.e. 13.7 followed by BOK, SCBNL and NABIL with 9.51, 7.03 and 6.1 respectively. While measuring the risk, EBL has the higher risk factor than other banks and SCBNL has the lower chance of risk. SCBNL has high degree of surviving capacity in adverse liquidity position.
- 3 Total investment to total deposit ratio has measured the proportion of total deposit that is used to increase the income of banks. SCBNL has deployed the highest proportion of its total deposit in earning activities as its ratio is significantly greater than the ratios of other three banks. Other banks are not as much as successful in mobilizing the deposits into investing activities.
- 4 Loan and advances to total deposits ratio has measured the proportion of total deposit

that is used to generate income of the banks as loan and advances.BOK has deployed the highest proportion of its total deposits as loan and advances followed by EBL, NABIL and SCBNL. This indicated that in fund mobilization activities, BOK and EBL are significantly better than NABIL and SCBNL. Their loan and advances have not increased proportionately as compared to the deposits.

- 5 Net profit to loan and advances ratio reflects the extent to which banks are successful in mobilizing the fund to acquire income. The performance of SCBNL is significantly better than other three banks as it has the highest mean ratio. The performance of NABIL is moderate. BOK and EBL show significantly low return against loan and advances as they have lower ratios on an average.
- 6 Return on assets ratio is useful in measuring the profitability of financial resources invested in the firm's assets. NABIL bank has the highest ratio followed by SCBNL, BOK and EBL. NABIL and SCBNL have satisfactory level of performance in mobilizing the firms' resources.
- 7 Net profit to total deposits ratio reflects the deposit utilization capacity of banks to earn profit. All banks have fluctuating trend of ratio. EBL has the lowest ratio where as NABIL has the highest ratio on an average. EBL has not succeeded to utilize its collected fund to generate the income.
- 8 The gap between NABIL and SCBNL in respect of interest income and interest expenses is highly deviated. The one rupee of interest expenses has been able to earn in SCBNL. This ratio has resulted the reciprocal result as measured by loan and advances to the total deposit and total investment to total deposit ratio. If the mobilization of fund has caused impact on this ratio, the result would be the same as that demonstrated by the above ratios. The high volume of money at call has helped SCBNL to increase its interest income, SCBNL, being the superpower in the technology and modern banking, has succeeded in collecting the fund in the cheapest price.
- 9 The trend analysis of total deposit, total investment and net profit and projection for next five years of NABIL, SCBNL, BOK and EBL reveals -Total deposits of all the four banks have increasing trend. If other things remain constant, the total deposit of NABIL will be Rs. 65971.62 million in fiscal year 2013/14 which is the highest deposit among the four banks. Similarly, the deposits of SCBNL, BOK and EBL will be Rs. 54,360.3, Rs. 29648.92 and Rs.59514.21 respectively in F/Y 2013/14.
- 10 NABIL, SCBNL and EBL have total investment in increasing trend. Other things

remaining the same, the total investment of SCBNL will be 29534.13 million in FY 2013/14 which is the highest among four banks. NABIL, BOK and EBL will have 19837.13 million, 3130.68 million and 10413.03 million respectively. The slope of SCBNL is the highest.

- 11 The net profit of NABNIL, SCBNL, BOK and EBL is in increasing trend. Other things remaining the same, the net profit of SCBNL will be 1539.14 million in the FY 2013/14. That is the highest among the sampled banks during the study period. Similarly, the net profit of NABIL, BOK and EBL will be 1516.28 million, 847.97 million and 1166.87 million respectively in the year 2013/14. The calculated trend values of net profit of NABIL, SCBNL, BOK and EBL are fitted in the trend line.
- 12 From the analysis of cash flow activities we have found one bank should not focus only on over variable of cash components. Financing, investing and operating activities all should be thoroughly reviewed and should give adequate care to have proper ration of those activities in the cash flow management. However, cash flow from operating activities is even more important than others.

### **CHAPTER- V**

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary

The term liquidity includes cash, bank balance, money at call or short notice and investments. Thus fund management is concerned with planning and managing of the liquid assets of the bank. So liquidity refers to the ability to meet immediately maturing liabilities. In the context of banking, liquidity means the capacity of paying out Cheque, loans, demand draft on demand. Liquidity is maintained for transaction purpose, speculative purpose, precautionary purpose, and statutory purpose. Banks use to keep liquid assets in the forms of cash and bank balance, money at call and investment in and readily marketable securities.

In summary, the smooth functioning of banking business it is essential to effective management of cash and liquidity. Banking business in Nepal is steadily growing but sometimes appears some problems and weaknesses, so it requires accelerated growth of savings, investment, effective management of remittance and corporate sector activities to bring more dynamism in the industry and to make the banking really viable for economic development.

Banks cannot deploy all of their cash. Because there is always a demand for ongoing transactions that require cash and because of regulatory concern over liquidity, banks maintain some of their resources in highly liquid form. Accordingly, banks maintain vault cash for day-to-day contingencies, and they also maintain deposits in a clearing account at NRB. Both of these types of balances pay no interest. However, bank regulators require that a certain amount is reefed to as required reserves.

Basically, the entire research work has focused on the comparative study in cash flow and liquidity management of Nepalese commercial banks. For the study, four commercial banks namely NABIL, SCBNL, BOK and EBL were taken as sample and their liquidity management practices were analyzed by taking five years' secondary data from F/Y 2004/05 to 2008/09. The objective of the study is to find out and analyze the liquidity management practices of sampled banks.

To fulfill the research objective, the study was divided into five chapters.

The first chapter of the study dealt with the basic assumption of the study. Basically, it highlights the concept and importance or significance of the study. It also presents the brief introduction of cash flow and liquidity management, focus of the study, significance of the study, research objective, brief introduction of the sampled banks, limitation of the study, process of the study. Lastly, it discusses about the organizational structure of the study. In the second chapter, theoretical review has been made. During the study, different books, journals, websites, reports are viewed to know the liquidity management. The second chapter summarized the findings of the previous findings of the study to provide knowledge about the background of the work done by them.

The third chapter of the study discussed about the various research methodologies used for the study. Basically, research methodology here signifies the research sources of data, population and sample of data, data collection procedures, data collection methods and tools and techniques employed etc.

An attempt has been made to fulfill the objective of the research work in chapter four. It first presented the generated data in tabular form and analyzed it systematically as per the objectives mentioned above. The researcher tried to analyze the comparative financial condition or position of bank in terms of liquidity, profitability, and deposit mobilization. In chapter five, the summary, conclusion and recommendation are included. The summary of the study, conclusion drawn from the study are presented and necessary suggestions are given for the betterment of liquidity management.

### 5.2 Conclusion

The present study successfully explored the result to meet the stated objectives of the study and found meaningful. From the analysis of the data, following conclusion has been drawn out.

The result showed that the overall liquidity strength of SCBNL can be considered the best among the banks. However, the liquidity risk arising from interest rate in SCBNL is most likely. Since the market is highly sensitive towards the interest rate and SCBNL has generally been offering low interest rate as compared to other banks, if SCBNL cannot tie up its saving deposits holder from its advances and personalized banking systems, the failure in liquidity in SCBNL is most likely than other three sampled banks in coming future.

Total investment to total deposit ratio has measured the proportion of total deposit that is used to increase the income of the banks. SCBNL has deployed the highest proportion of its total deposit in earning activities and this ratio is significantly above than the ratios of other three banks.

Loans and advances to total deposit ratio has measured the proportion of total deposit that has been used as loan and advances in order to generate income of the banks. The lack of reliable investment opportunity and fear of losing the principle may cause decrease in loan and advances.

The growth of deposits is higher than the growth of loan and advances and opportunity in investing activities is limited. The liquidity position of the banks is likely to increase in the coming future. This certainly increases the capability of these banks in increasing their credit provided a sound economy.

From the analysis of liquid fund to total deposit ratio, it is found that SCBNL has the strong capacity to meet short term obligations. NABIL, BOK and EBL have moderate strength to meet the short term obligation.

Analysis of balance with NRB to total deposit ratio showed that only EBL has adequate reserve in NRB to meet the short term obligations while other three banks are in moderately liquid position.

The trend analysis showed that the total deposits of all the four banks have increasing trend. The deposit collection of NABIL is higher than that of SCBNL, BOK and EBL. BOK's total deposit collection trend is not as higher as other banks. The total investment of NABIL, SCBNL and EBL has increasing trend while the total investment trend of BOK is constant over the study period. It is found that the total investment of SCBNL is the highest. Similarly, the net profit of NABIL, SCBNL, BOK and EBL is in increasing trend. It is found that the net profit of SCBNL is the highest among the four sampled banks.

### 5.3 **Recommendations**

Based on the findings of the study, the following suggestions and recommendations are made which may be referred for further improvement

- Since all the banks have less investment in comparison to deposits, all are strongly recommended to follow the liberal investment policy so that more percentage of deposits can be invested to different profitable sectors. Analysis shows that investment is a significant factor which affects the net profit of the bank. Subsequently, a skillful administration is a must because negligence may become a reason of principle loss.
- The high volume of liquidity shows that the high degree of investment strength has been prevailing in all of these banks. The lack of reliable investment opportunity and fear of losing the principle in rural sectors have been keeping these banks less oriented towards the investment function. Hence, the government should take appropriate action to initiate these banks to attract to flow of credit in rural economy. Posing the compulsion by directives does not create long term healthy liquidity mobilization practices unless the commercial banks are not self motivated to low credit in this sector.
- As shown by the interest income to interest expenses ratio, the interest gap between SCBNL and NABIL is highly unfavorable. Since this gap is not caused due to the credit creation power of these banks, as the total loan and advances to total deposit ratio is not even i.e. 1:1, this gap has its reason with high interest offered. Thus, banks are recommended to lower this gap especially by charging low interest on investment. Lowering the gap results in high volume of loans and advances and helps to increase the sustainable liquidity mobilization practice.
- The cash and bank balance to total deposit ratios show that EBL has the highest ratio than other sampled banks. So, it is suggested that the ratio be decreased as excess liquidity is also not preferable.
- NRB has determined the ratio of balance with NRB to total deposit ratio to be 7%. But only EBL has maintained this ratio. So, other sampled banks are suggested to raise the ratio of balance with NRB to total deposit to 7%.

# **BIBLIOGRAPHY**

### **Books:**

- Bhandari, Dilli Raj (2004), **Banking and Insurance**: Principle and Practice Kathmandu: Ayush Publication.
- Crosses, H.K. (1963), **Management policies for Commercial Banks**, New Jersy Prentice Hall Inc.
- Dahal, Bhuvan & Sarita, (2002), **A Hand Book of Banking**, 2<sup>nd</sup> Edition, Kathmandu: Asmita Books & Stationary.
- Dangol, Ratna Man, (1995), **Financial Management (Theory and Practice)**, 3<sup>rd</sup> Edition, Kathmandu: Taleju Prakashan.
- Decay, Manning (1989), **Banking Theory and Practice**, 4<sup>th</sup> Edition (revised), New Delhi: Vikash Publishing House Pvt. Ltd.
- Gupta, S.C. (2000), **Fundamentals of Statistics**, 5<sup>th</sup> Edition (reprint), Kathmandu: Himalayan Publishing House.
- Hampton, John J, (2000), **Financial Decision Making**, 4<sup>th</sup> Edition, New Delhi, Prentice-Hall of India (P) Ltd.
- Johnson & Johnson (1940), **Commercial Bank Management**, New York: The Dryden Press.
- Kothari, C.R. (1992), **Quantitative Techniques**, New Delhi: Vikash Publication House Pvt. Ltd.
- Kothari, C.R. (1994), **Research Methodology**, New Delhi: Vikash Publication House Pvt. Ltd.
- Munankarmi, S.P. (2003), **Management Accounting**, Kathmandu: Buddha Academic Publisher and Distributors.
- Pandey, I.M. (1985), **Financial Management**, 8<sup>th</sup> Edition, New Delhi: Vikash Publication House Pvt. Ltd.
- Panta, P.R. and Wolf, H.K. (2002), Social Science Research and Thesis Writing, Kathmandu: Buddha Academic Enterprises.
- Reed, Edwards W. (2002), Commercial Banking, New Jersy: Prentic Hall Inc.
- Ross, Peter S. (2003), Commercial Bank Management, New York: McGraw Hill.
- Sinkey, Joseph F. (1993), **Commercial Bank and Financial Management**, New Jersy, USA: Prentic Hall Inc.
- Vaidya, Shakespare, **Banking and Insurance Management**, 1<sup>st</sup> Edition, Kathmandu: Taleju Prakashan, Bhotahity.

- Van Horne, Jemes C. (2002), **Financial Management and Policy**, New Delhi: Prentic Hall of India Pvt. Ltd.
- Wagle, K.N. and Dahal, R. (2006), **Management Accounting**, Kathmandu: Khanal Books and Stationary.
- Weston, J.F. and Brigham, E.F.(1987), **Essentials of Managerial Finance**, Orlando: The Dryden Press.
- Weston, J.F. and Copeland, T.E. (1992), Managerial Finance, Chicago: The Dryden Press.

### **Unpublished Master level thesis:**

- Bhattarai, Dinesh Kumar, (2008), "Comparative Analysis of Cash Flow" (with special reference to joint venture and Nepalese Commercial Banks), an unpublished Master level thesis submitted to Nepal Commerce Campus, Faculty of Management, T.U.
- Kafle, Babu Ram, (2007), "Analysis and Comparative Study on Cash Flow of Commercial Banks", an unpublished Master level thesis submitted to Nepal Commerce Campus, Faculty of Management, T.U.
- Kandel, Ramnath, (2010), "Cash flow Analysis of Salt Trading Corporation Limited", an unpublished Master level thesis submitted to Shanker Dev Campus, Faculty of Management, T.U.
- Pudasaini, Kavita, (2010), "An analysis of Cash Management of Manufacturing Companies ( A Case Study of Bottlers Nepal Ltd. and Unilever Nepal Ltd.)", an unpublished Master level thesis submitted to Shanker Dev Campus, Faculty of Management, T.U.
- Shrestha, Amit, (2007), "An Analytical and Comparative Study on Cash Flow of Joint Venture Banks in Nepal", an unpublished Master level thesis submitted to Nepal Commerce Campus, Faculty of Management, T.U.
- Shrestha, Sarada, (2008), "Performance Measurement of Joint Venture Banks in Nepal", an unpublished Master level thesis submitted to Nepal Commerce Campus, Faculty of Management, T.U.

### Websites:

www.bok.com www.everesbankltd.com www.nabilbank.com www.nrb.gov.np www.standardcharteredbank.np

# **APPENDIX-I**

# i)Total Interest Earned to Total Interest Expenses Ratio

NABIL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
<b>Total Interest Earned</b>	1068746	1309998	1587759	1978697	2798486		
<b>Total Interest Expenses</b>	243545	357161	555710	758436	1153280		
Ratio	4.39	3.67	2.86	2.61	2.43		

SCBNL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
<b>Total Interest Earned</b>	1058678	1189603	1411982	1591196	1887221		
<b>Total Interest Expenses</b>	254127	303198	413055	471730	543787		
Ratio	4.17	3.92	3.42	3.37	3.47		

ВОК							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
<b>Total Interest Earned</b>	607096	718121	819004	1034158	1347755		
<b>Total Interest Expenses</b>	241639	308156	339181	417543	563113		
Ratio	2.51	2.33	2.41	2.48	2.39		

EBL

	-				
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
<b>Total Interest Earned</b>	719298	903411	1144408	1548657	2186815
Total Interest Expenses	299565	401397	517166	632609	1012874
Ratio	2.40	2.25	2.21	2.45	2.16

# ii)Return on Loans and Advances (%)

NABIL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	518636	635262	673959	746468	1031053		
Loans and Advances	10586170	12922543	15545779	21365053	27589933		
Ratio	4.90%	4.92%	4.34%	3.49%	3.74%		

SCBNL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	539204	658756	691668	818921	1025115		
Loans and Advances	8143208	8935418	10502637	13718597	13679757		
Ratio	6.62%	7.37%	6.59%	5.97%	7.49%		
		DOT					

Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Net Profit	139529	202441	262387	361497	461735
Loans and Advances	5912579	7259083	9399328	12462638	14647297
Ratio	2.36%	2.79%	2.79%	2.90%	3.15%

EBL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Net Profit	168215	237291	296407	451219	638733			
Loans and Advances	7618671	9801308	13664082	18339086	23884674			
Ratio	2.21%	2.42%	2.17%	2.46%	2.67%			

# iii)Net Profit to Total Assets Ratio(%)

NABIL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Net Profit	518636	635262	673959	746468	1031053			
Total Assets	17186331	22329971	27253393	37132759	43867397			
Ratio	3.02%	2.84%	2.47%	2.01%	2.35%			

SCBNL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	539204	658756	691668	818921	1025115		
Total Assets	21893578	25776332	28596689	33335788	40587468		
Ratio	2.46%	2.56%	2.42%	2.46%	2.53%		

BOK							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	139529	202441	262387	361497	461735		
Total Assets	9888533	12278329	14570099	17721925	20496005		
Ratio	1.41%	1.65%	1.80%	2.04%	2.25%		

EBL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	168215	237291	296407	451219	638733		
Total Assets	11732516	15959285	21432574	27149343	36916849		
Ratio	1.43%	1.49%	1.38%	1.66%	1.73%		

# -...

# iv)Net Profit to Total Deposits Ratio(%)

NABIL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	518636	635262	673959	746468	1031053		
Total Deposits	14586609	19347399	23342285	31915047	37348256		
Ratio	3.56%	3.28%	2.89%	2.34%	2.76%		

SCBNL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	539204	658756	691668	818921	1025115		
Total Deposits	19335094	23061032	24647021	29743999	35871721		
Ratio	2.79%	2.86%	2.81%	2.75%	2.86%		

ВОК							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	139529	202441	262387	361497	461735		
Total Deposits	8975781	10485359	12388927	15833738	18083980		
Ratio	1.55%	1.93%	2.12%	2.28%	2.55%		

EBL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Net Profit	168215	237291	296407	451219	638733		
Total Deposits	10097691	13802445	18186254	23976299	33322946		
Ratio	1.67%	1.72%	1.63%	1.88%	1.92%		

# v) Liquid Fund to Total Deposits Ratio(%)

NABIL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Liquid Fund	1427809	2365141	1963358	4623503	3925400		
Total Deposits	14586609	19347399	23342285	31915047	37348256		
Ratio	9.79%	12.22%	8.41%	14.49%	10.51%		

SCBNL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Liquid Fund	3370809	3253512	3782174	4247781	5192713			
Total Deposits	19335094	23061032	24647021	29743999	35871721			
Ratio	17.43%	14.11%	15.35%	14.28%	14.48%			

BOK								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Liquid Fund	1069395	1322745	1575184	1513147	2395463			
Total Deposits	8975781	10485359	12388927	15833738	18083980			
Ratio	11.91%	12.62%	12.71%	9.56%	13.25%			

EBL							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Liquid Fund	1619989	1619928	2391421	3013972	6164372		
Total Deposits	10097691	13802445	18186254	23976299	33322946		
Ratio	16.04%	11.74%	13.15%	12.57%	18.50%		

vi) Loans and Advances to Total Deposits Ratio(%)

NABIL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Loans and Advances	10586170	12922543	15545779	21365053	27589933			
Total Deposits	14586609	19347399	23342285	31915047	37348256			
Ratio	72.57%	66.79%	66.60%	66.94%	73.87%			

SCBNL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Loans and Advances	8143208	8935418	10502637	13718597	13679757			
Total Deposits	19335094	23061032	24647021	29743999	35871721			
Ratio	42.12%	38.75%	42.61%	46.12%	38.14%			

BOK

bom							
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09		
Loans and Advances	5912579	7259083	9399328	12462638	14647297		
Total Deposits	8975781	10485359	12388927	15833738	18083980		
Ratio	65.87%	69.23%	75.87%	78.71%	81.00%		

EBL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Loans and Advances	7618671	9801308	13664082	18339086	23884674			
Total Deposits	10097691	13802445	18186254	23976299	33322946			
Ratio	75.45%	71.01%	75.13%	76.49%	71.68%			

EDI

# vii) Total Investment to Total Deposits Ratio(%)

NABIL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Total Investment	4267233	6178533	8945311	9939771	10826379			
Total Deposits	14586609	19347399	23342285	31915047	37348256			
Ratio	29.25%	31.93%	38.32%	31.14%	28.99%			

# NADI

SCBNL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Total Investment	9702553	12847536	13553233	13902819	20236121			
Total Deposits	19335095	23061032	24647021	29743999	35871721			
Ratio	50.18%	55.71%	54.99%	46.74%	56.41%			

ВОК								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Total Investment	2598253	3374712	2992424	3204068	2783599			
Total Deposits	8975781	10485359	12388927	15833738	18083980			
Ratio	28.95%	32.18%	24.15%	20.24%	15.39%			

EBL								
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09			
Total Investment	2128932	4200515	4984315	5059558	5948480			
Total Deposits	10097691	13802445	18186254	23976299	33322946			
Ratio	21.08%	30.43%	27.41%	21.10%	17.85%			

### viii) Cash and Bank Balance to Total Deposits Ratio(%)

NABIL					
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Cash and Bank Balance	559381	630239	1399825	2671142	3372512
Total Deposits	14586609	19347399	23342285	31915047	37348256
Ratio	3.83%	3.26%	6.00%	8.37%	9.03%

SCBNL					
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Cash and Bank Balance	1111118	1276241	2021022	2050243	3147164
Total Deposits	19335094	23061032	24647021	29743999	35871721
Ratio	5.75%	5.53%	8.20%	6.89%	8.77%

# SCDNI

		BOK			
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Cash and Bank Balance	740521	728698	1315905	2182112	1440467
Total Deposits	8975781	10485359	12388927	15833738	18083980
Ratio	8.25%	6.95%	10.62%	13.78%	7.97%

EBL					
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Cash and Bank Balance	1049989	1552968	2391421	6164372	2667972
Total Deposits	10097691	13802445	18186254	23976299	33322946
Ratio	10.40%	11.25%	13.15%	25.71%	8.01%

# ix) Balance with NRB to Total Deposits Ratio(%)

NABIL					
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Balance with NRB	389705	318359	1113415	1829471	2648596
Total Deposits	14586609	19347399	23342285	31915047	37348256
Ratio	2.67%	1.65%	4.77%	5.73%	7.09%

SCBNL					
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Balance with NRB	692192	749741	1613758	1266274	1851133
Total Deposits	19335094	23061032	24647021	29743999	35871721
Ratio	3.58%	3.25%	6.55%	4.26%	5.16%

BOK					
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Balance with NRB	417867	349296	883496	606049	1324108
Total Deposits	8975781	10485359	12388927	15833738	18083980
Ratio	4.66%	3.33%	7.13%	3.83%	7.32%

EBL					
Fiscal Year	2004/05	2005/06	2006/07	2007/08	2008/09
Balance with NRB	779669	1139515	1178198	1080915	4787164
Total Deposits	10097691	13802445	18186254	23976299	33322946
Ratio	7.72%	8.26%	6.48%	4.51%	14.37%

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# **APPENDIX II**

# Trend value of Total deposit of NABIL

Fiscal Year(t)	Total Deposit (y)	x=(t- 2007)	<b>X</b> <sup>2</sup>	ху
2005	14,586.61	-2	4	-29173.22
2006	19,347.40	-1	1	-19347.4
2007	23,342.29	0	0	0
2008	31,915.05	1	1	31915.05
2009	37,348.26	2	4	74696.52
N=5	Σy=126,539.61	Σx=0	Σx <sup>2</sup> =10	<b>Σxy=58090.95</b>

$$a = \frac{\Sigma y}{N} = \frac{126539.61}{5} = 25307.92$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{58090.95}{10} = 5809.010$$

## The equation of the straight line trend is

Yc = a + bxYc = 2530.92 + 5.809.10x

Year	x=(t-2007)	Trend Value Yc = 2, 530. 92 + 5, 809. 10x
2004/05	-2	13689.72
2005/06	-1	19498.82
2006/07	0	25307.92
2007/08	1	31117.02
2008/09	2	36926.12
2009/10	3	42735.22
2010/11	4	48544.32
2011/12	5	54353.42
2012/13	6	60162.52
2013/14	7	65971.62

### Trend value of Total deposit of SCBNL

Fiscal Year (t)	Total Deposit (y)	x=(t-2007)	<b>X</b> <sup>2</sup>	ху
2005	19,335.10	-2	4	-38670.2
2006	23,061.03	-1	1	-23061.03
2007	24,647.02	0	0	0
2008	29,743.10	1	1	29743.1
2009	35,871.72	2	4	71743.44
N=5	Σy=132,657.97	Σx=0	Σx <sup>2</sup> =10	Σxy=39755.31

$$a = \frac{\Sigma y}{N} = \frac{132657.97}{5} = 26531.59$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{39755.31}{10} = 3975.53$$

 $\Sigma x^2$  10 The equation of the straight line trend is

Yc = a + bx

Yc = 26531.59 + 3975.53x

Year	x=(t-2007)	Trend Value
		Yc = 26531.59 + 3975.53x
2004/05	-2	18580.53
2005/06	-1	22556.06
2006/07	0	26531.59
2007/08	1	30507.12
2008/09	2	34482.65
2009/10	3	38458.18
2010/11	4	42433.71
2011/12	5	46409.24
2012/13	6	50384.77
2013/14	7	54360.3

### Trend value of Total deposit of BOK

Fiscal Year				
(t)	<b>Total Deposit</b> (y)	<b>x=(t-2007)</b>	<b>X</b> <sup>2</sup>	xy
2005	8,975.78	-2	4	-17951.56
2006	10,485.36	-1	1	-10485.36
2007	12,388.93	0	0	0
2008	15,833.74	1	1	15833.74
2009	18,083.98	2	4	36167.96
	Σy=65,767.79	$\Sigma x = 0$	Σx <sup>2</sup> =10	Σxy=23564.78

$$a = \frac{\Sigma y}{N} = \frac{65767.79}{5} = 13153.56$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{23564.78}{10} = 2356.48$$

The equation of the straight line trend is Yc = a + bxYc = 13153.56 + 2356.48x

		Trend Value
Year	x(t-2007)	Yc $= 13153.56 + 2356.48x$
2005	-2	8440.6
2006	-1	10797.08
2007	0	13153.56
2008	1	15510.04
2009	2	17866.52
2010	3	20223
2011	4	22579.48
2012	5	24935.96
2013	6	27292.44
2014	7	29648.92

## Trend value of Total deposit of EBL

Fiscal Year (t)	Total Deposit(y)	x=(t-2007)	X <sup>2</sup>	xy
2005	10,097.69	-2	4	-20195.38
2006	13,802.45	-1	1	-13802.45
2007	18,186.25	0	0	0
2008	23,976.30	1	1	23976.3
2009	33,322.95	2	4	66645.9
				Σ ху
	Σy=99,385.64	$\Sigma x=0$	Σx <sup>2</sup> =10	=56624.37

$$a = \frac{\Sigma y}{N} = \frac{99385.64}{5} = 19877.13$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{56624.37}{10} = 5662.44$$

The equation of the straight line trend is Yc = a + bxYc = 19877.13 + 5662.44x

Year	x(t-2007)	<b>Trend Value</b> <i>Yc</i> = 19877.13 + 5662.44x
2005	-2	8552.25
2006	-1	14214.69
2007	0	19877.13
2008	1	25539.57
2009	2	31202.01
2010	3	36864.45
2011	4	42526.89
2012	5	48189.33
2013	6	53851.77
2014	7	59514.21

### **Trend Value of Total Investment of NABIL**

Fiscal Year (t)	Total Investment (y)	x=(t-2007)	x <sup>2</sup>	xy
2005	4,275.53	-2	4	-8551.06
2006	6,178.53	-1	1	-6178.53
2007	8,945.31	0	0	0
2008	9,939.77	1	1	9939.77
2009	10,826.38	2	4	21652.76
				Σ
	Σy=40,165.52	Σx=0	$\Sigma x^2 = 10$	xy=16862.94

$$a = \frac{\Sigma y}{N} = \frac{4016.52}{5} = 8033.10$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{16862.94}{10} = 1686.29$$

The equation of the straight line trend is Yc = a + bxYc = 8033.10 + 1686.29x

Year	x(t-2007)	Trend Value Yc=8033.10+1686.29x
2005	-2	4660.52
2006	-1	6346.81
2007	0	8033.1
2008	1	9719.39
2009	2	11405.68
2010	3	13091.97
2011	4	14778.26
2012	5	16464.55
2013	6	18150.84
2014	7	19837.13

# Trend Value of Total Investment of SCBNL

Fiscal Year (t)	Total Investment (y)	x=(t-2007)	x <sup>2</sup>	xy
2005	9,702.55	-2	4	-19405.1
2006	12,847.54	-1	1	-12847.54
2007	13,553.23	0	0	0
2008	13,902.82	1	1	13902.82
2009	20,236.12	2	4	40472.24
	Σy=70,242.26	Σx=0	Σx <sup>2</sup> =10	Σxy=22122.42

$$a = \frac{\Sigma y}{N} = \frac{70242.26}{5} = 14048.45$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{22122.42}{10} = 2212.24$$

# The equation of the straight line trend is

$$Yc = a + bx$$

Yc = 14048.45 + 2212.24x

Year	x(t-2007)	Trend Value Yc=14048.45+2212.24x
2005	-2	9623.97
2006	-1	11836.21
2007	0	14048.45
2008	1	16260.69
2009	2	18472.93
2010	3	20685.17
2011	4	22897.41
2012	5	25109.65
2013	6	27321.89
2014	7	29534.13

Fiscal Year (t)	Total Investment (y)	x=(t-2007)	<b>x</b> <sup>2</sup>	xy
2005	2,598.25	-2	4	-5196.5
2006	3,374.71	-1	1	-3374.71
2007	2,992.43	0	0	0
2008	3,204.07	1	1	3204.07
2009	2,783.60	2	4	5567.2
	Σy=14,953.06	$\Sigma x = 0$	Σx <sup>2</sup> =10	Σxy =200.06

**Trend Value of Total Investment of BOK** 

$$a = \frac{\Sigma y}{N} = \frac{14953.06}{5} = 2990.61$$

$$b = \frac{2xy}{\Sigma x^2} = \frac{200.06}{10} = 20.01$$

## The equation of the straight line trend is

Yc = a + bxYc = 2990.61 + 20.01x

Year	x(t-2007)	Trend Value Yc=2990.61+20.01x
2005	-2	2950.59
2006	-1	2970.6
2007	0	2990.61
2008	1	3010.62
2009	2	3030.63
2010	3	3050.64
2011	4	3070.65
2012	5	3090.66
2013	6	3110.67
2014	7	3130.68

Fiscal Year (t)	Total Investment (y)	x=(t-2007)	X <sup>2</sup>	xy
2005	2,128.93	-2	4	-4257.86
2006	4,200.52	-1	1	-4200.52
2007	4,984.32	0	0	0
2008	5,059.56	1	1	5059.56
2009	5,948.48	2	4	11896.96
				Σxy
	$\Sigma y = 22,321.81$	$\Sigma x = 0$	$\Sigma x^2 = 10$	=8498.14

**Trend Value of Total Investment of EBL** 

$$a = \frac{\Sigma y}{N} = \frac{22321.81}{5} = 4464.36$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{8498.14}{10} = 849.81$$

The equation of the straight line trend is

Yc = a + bxYc = 4464.36 + 849.81x

Year	x(t-2007)	Trend Value Yc=4464.36+849.81x
2005	-2	2764.74
2006	-1	3614.55
2007	0	4464.36
2008	1	5314.17
2009	2	6163.98
2010	3	7013.79
2011	4	7863.6
2012	5	8713.41
2013	6	9563.22
2014	7	10413.03

# **Trend Value of Net Profit of NABIL**

Fiscal Year (t)	Net Profit(y)	x=(t-2007)	<b>X</b> <sup>2</sup>	xy
2005	518.64	-2	4	-1037.28
2006	635.26	-1	1	-635.26
2007	673.96	0	0	0
2008	746.47	1	1	746.47
2009	1,031.05	2	4	2062.1
				Σxy
	$\Sigma y = 3605.38$	$\Sigma x = 0$	$\Sigma x^2 = 10$	=1136.03

$$a = \frac{\Sigma y}{N} = \frac{3605.38}{5} = 721.08$$
$$b = \frac{\Sigma x y}{\Sigma x^2} = \frac{1136.03}{10} = 113.60$$

The equation of the straight line trend is Yc = a + bxYc = 721.08 + 113.60x

**Trend Value** Year x(t-2007) Yc=721.08+113.60x 2005 -2 493.88 2006 607.48 -1 2007 0 721.08 1 2008 834.68 2009 2 948.28 3 2010 1061.88 2011 4 1175.48 5 1289.08 2012 2013 6 1402.68 7 2014 1516.28

### **Trend Value of Net Profit of SCBNL**

Fiscal Year (t)	Net Profit(y)	x=(t-2007)	X <sup>2</sup>	ху
2005	539.20	-2	4	-1078.4
2006	658.76	-1	1	-658.76
2007	691.67	0	0	0
2008	818.93	1	1	818.93
2009	1,025.12	2	4	2050.24
				Σxy
	Σy =3,733.68	$\Sigma x = 0$	$\Sigma x^2 = 10$	=1132.01

$$a = \frac{\Sigma y}{N} = \frac{3733.68}{5} = 746.74$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{1132.01}{10} = 113.20$$

The equation of the straight line trend is Yc = a + bxYc = 746.74 + 113.60x

Year	x(t-2007)	Trend Value Yc=746.74+113.20x
2005	-2	520.34
2006	-1	633.54
2007	0	746.74
2008	1	859.94
2009	2	973.14
2010	3	1086.34
2011	4	1199.54
2012	5	1312.74
2013	6	1425.94
2014	7	1539.14

### **Trend Value of Net Profit of BOK**

Fiscal Year (t)	Net Profit(y)	x=(t-2007)	X <sup>2</sup>	xy
2005	139.53	-2	4	-279.06
2006	202.44	-1	1	-202.44
2007	262.39	0	0	0
2008	361.50	1	1	361.5
2009	461.74	2	4	923.48
	Σy =1,427.60	Σx=0	$\Sigma x^2 = 10$	Σxy =803.48

$$a = \frac{\Sigma y}{N} = \frac{1427.60}{5} = 285.52$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{803.48}{10} = 80.35$$

### The equation of the straight line trend is

Yc = a + bxYc = 285.52 + 80.35x

Year	x(t-2007)	Trend Value Yc=285.52+80.35x
2005	-2	124.82
2006	-1	205.17
2007	0	285.52
2008	1	365.87
2009	2	446.22
2010	3	526.57
2011	4	606.92
2012	5	687.27
2013	6	767.62
2014	7	847.97

Fiscal Year (t)	Net Profit(y)	x=(t-2007)	X <sup>2</sup>	xy
2005	168.22	-2	4	-336.44
2006	237.29	-1	1	-237.29
2007	296.41	0	0	0
2008	451.22	1	1	451.22
2009	638.73	2	4	1277.46
				Σxy
	Σy =1,791.87	$\Sigma x = 0$	$\Sigma x^{2} = 10$	=1154.95

Trend Value of Net Profit of EBL

$$a = \frac{\Sigma y}{N} = \frac{1791.87}{5} = 358.37$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{1154.95}{10} = 115.50$$

The equation of the straight line trend is

Yc = a + bxYc = 358.37 + 115.50x

Year	x(t-2007)	Trend Value Yc=358.37+115.50x
2005	-2	127.37
2006	-1	242.87
2007	0	358.37
2008	1	473.87
2009	2	589.37
2010	3	704.87
2011	4	820.37
2012	5	935.87
2013	6	1051.37
2014	7	1166.87

### **APPENDIX III**

### Nabil Bank

	2004/05	2005/06	2006/07	2007/08
(A)Cash flow from operating activities	175956	-1030740	544234	1503617
(B)Cash flow from investment activities	-581378	1101599	225354	-472302
(C)cash flow from financing activities	264888	0	0	240000
(D)Income/expenses from change in exchange rate in cash and bank balance	0	0	0	0
(E)Current year's cash flow from all activities(A+B+C+D)	-140534	70858	769587	1271315
(F)opening cash and bank balance	286886	559381	630239	1399826
closing cash and bank balance(E+F)	146352	630239	1399826	2671141

Standard Chartered Bank	2004/05	2005/00	2000/07	0007/00
	2004/05	2005/06	2006/07	2007/08
(A)Cash flow from operating activities	305604	-658562	1092749	-45234
(B)Cash flow from investment activities	1670356	-2240510	-421102	-16663
(C)cash flow from financing activities	-1968206	0	1150	902
(D)Income/expenses from change in exchange rate in cash and bank balance	0	0	71983	90217
(E)Current year's cash flow from all activities(A+B+C+D)	7754	165125	744780	29222
(F)opening cash and bank balance	187705	1111117	1276241	2021021
closing cash and bank balance(E+F)	195459	1276242	2021021	2050243

### Bank of Kathmandu

**Everest Bank** 

	2004/05	2005/06	2006/07	2007/08
(A)Cash flow from operating activities	-78837	354768	1196284	131217
(B)Cash flow from investment activities	159465	-506944	-617615	-16680
(C)cash flow from financing activities	-127917	130285	486	0
(D)Income/expenses from change in exchange rate in cash and bank balance	4927	10068	8052	10027
(E)Current year's cash flow from all activities(A+B+C+D)	-42362	-11823	587207	124564
(F)opening cash and bank balance	782883	740520	728697	1315904
closing cash and bank balance(E+F)	740521	728697	1315904	1440468

### 2004/05 2005/06 2006/07 2007/08 (A)Cash flow from operating activities 311509 485749 935778 1618857 (B)Cash flow from investment activities -193324 -45772 -888791 -761830 (C)cash flow from financing activities 300000 63000 790193 -594113 (D)Income/expenses from change in exchange rate in 0 0 1274 13637 cash and bank balance (E)Current year's cash flow from all activities(A+B+C+D) 418185 502977 838454 276551 (F)opening cash and bank balance 631805 1049990 1552967 2391421 closing cash and bank balance(E+F) 1049990 1552967 2391421 2667972