

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

Finance is the means by which the funds are obtained and the methods by which these funds are managed and collected. Finance can be defined as art and science of managing money. (Adhikari and sherstha, 2063, p.1) The management of money means the acquisition and spending or investing money. Finance is concerned with the process, institution, markets and investments involved in the transfer of money among the individuals, businesses and government.

Finance is defined as the managerial activity concerned with planning and controlling of the firms financial resources. Financial management viewed as the managerial activities directed forward procurement of funds for business from different sources and allocation of them for the productive use so as to increase the value of the firm. (paudel, 2006, p.22)

According to Van Horne “financial management is concerned with the acquisition, financing and management assets with some overall goal in mind. Thus, the decision function of financial management can be broken down I to three major areas the financing, investment dividend decision.

Financing is concerned with the identification of need of money and collection of the funds from the right sources in right time in order to achieve the goal of shareholder’s value maximization.

Investment decision is capital budgeting decision or long term assets mix decision. Capital investment is the allocation of capital to investment proposal whose benefits are to be realized in future.

Distribution of profit among to shareholders known as dividend decision. Dividend decision includes the decision regarding the retention of profit is retained to meet the need of fund.

Financial performance analysis is a process of identifying the financial strength and weakness of the firm by properly establishing the relationship between item of balance sheet and the profit and loss account. It is undertaken to assess the financial strength and weakness of the firm. The analysis is usually based on financial statement prepared by the firm. Financial analysis serves as the basis for decision making. Moreover this analysis is also made to find out

whether to use debt or equity funds to finance planned plant expansion. Financial analysis uses data contented in the firm's financial statement supplemented by the statement of cash flows. Furthermore, it summarized the large quantity of financial data and makes qualitative judgment about the firm's financial performance. The primary tools of financial analysis are financial ratios. Financial ratios provide a good technique for assessing financial performance.

Finance companies are the financial institutions that engage in satisfying individual credit need and perform merchant banking function. In other words, finance companies are the non-bank-financial institutions that tend to meet the various kinds of consumer credit need. They involve in leasing, project financing, housing and other kind of real estate financing. (Paudel, 2006, p.26)

According to A. Urant "Financial institution are the investment intermediaries linking the savers and users of capital". (Khadaka and Shing, 2058, p.233)

The primary function of finance companies is to make loan to both individuals and businesses. These companies are popular among low income and medium class people for financing hire purchase, vehicles, machinery tools, equipments, durable household goods etc. they can also perform merchant banking activities with prior approval of NRB. There is no restriction for finance companies to invest in government securities and NRB bonds. But, they have to perform their activities as prescribed by NRB directives. (Gurung, 2007, p.9). Finance companies are those intermediaries, which link the savers and users of capital. They collect small and spread saving of the productive sectors in the form of investment or loan. (Upadhaya, 2004) p.101

There are 79 finance companies in Nepal. Among them Pokhara finance limited is one. Pokhara finance limited is the independent and autonomous Finance Company was established in Pokhara on 2052 B.S. under the finance company act 2042. But it was operated legally from 3<sup>rd</sup> of Chaitra 2053. The main objective of PFL is to collect dispersed saving of people and convert them into capital and lend to individuals or institutional borrowers. As a whole, its main objective is to support the national economy by considering financial and technical facility to general public. Its head office is located at Gairapatan, Pokhara. Till today, PFL has not expanded its financial activities in other part of the country.

At the starting period, PFL had authorized capital Rs 4 corer, issued capital of Rs 2 corer and paid up capital of Rs 2 corer and present it has increased its authorized capital to Rs 24 corer,

issued capital to Rs 12 corer and paid up capital to Rs 6 corer. Initially its operation was started with 6 employees and now the total numbers of employees are 16. There are seven members in board of directors of whom three members are elected by general shareholders and 4 members are from the promoters of PFL. All the decisions of PFL are taken by BOD under rules and regulations formulated by NRB as well as finance company act 2042 B.S. (11<sup>th</sup> annual report of PFL, 2064 )

## **1.2 Focus of the Study**

Financial performance analysis is a process of identifying the financial strength and weakness of the firm by properly establishing relationship between the item of balance sheet and the profit and loss account. Ratio analysis is a powerful tool of financial analysis. The study aims to analyze the financial performance of PFL in the framework of CAMELS by using descriptive and analytical research design. Thus, whole energy and effort concentrate on analysis of financial performance of the company. more specifically, the study focuses on the trend of capital adequacy ratio with comparing to NRB standard, non-performing loan ratio with comparing to industrial average, trend of loan loss ratio, and trend of total expenses to total revenues ratio, trend of earning per employee, trend of return on equity, return on assets, net interest margin and earning per share and trend of NRB balance to total deposits ratio, vault to total deposits ratio with comparing to industrial average during the period of pass five years starting from FY 2059\60.

## **1.3 Statement of the Problem**

A financial institution's soundness is judged on the basis of capital adequacy, asset quality, management, earning, liquidity and sensitivity to market risk (CAMELS). Some financial institution have very low capital adequacy ratio while some have piled of non-performing assets. Similarly, it appears that financial institutions do not have proper system managing the correctness of credit classification and provision of some finance company. The profitability position of a firm is generally known through financial statements but a major question emerges whether there are adequate to reflect the overall performance of company. The fundamentals problem of this study is to check up the financial health of Pokhara finance

company in the framework of CAMELS. Based on this general problem the following specific problems are set in this study.

1. What is the capital adequacy ratio of PFL?
2. What is the quality of assets of PFL?
3. How far the company is managing their expenses with respect to revenues?
4. What is the trend of earning performance made by the PFL?
5. What is the trend of liquidity position in the PFL?
6. How changes in interest rates can affect PFL's earning?

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

The finance company should know its financial health. To know the financial condition of PFL, it can use many financial tools and techniques. So, the objective of this study is to check up the financial health of PFL in the framework of CAMELS. By using these tools, we will be able to know the capital adequacy, quality of assets, management quality, earning performance liquidity position and sensitivity to interest rate risk of PFL. On the basis of these general objectives the following specific objectives have been set.

1. To analyze the capital adequacy ratio of PFL.
2. To analyze the quality of assets of PFL.
3. To evaluate the efficiency of the PFL's management.
4. To evaluate the trend of earning performance of PFL.
5. To analyze the trend of liquidity position in the PFL.
6. To assess sensitivity of PFL's earning to interest rate risk.

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

Research it self has own importance because it aims to gain knowledge and to add the new literature to the existing field. The significance of this study lies mainly in filling a research gap on the study of financial performance analysis of finance company with respect to Pokhara finance company. This study will contribute significantly to solve the problem existing in the financial institution and to formulate the policy and strategies to maintain activities effectively. The study is important for finance companies, researchers, scholars, investors, students,

government and many other parties. So, this study will be helpful to those who want to study in further detail and widely in this field. At last, it is expected that the study will add a drop of literature to the field of finance company and their financial performance analysis.

## **1.6 Delimitation of the Study**

As every study is conducted with in certain limitations the present study is not an exceptional. The study is based on a case study of PFL, which may not represent the overall scenario of all finance companies. Basically, the study is limited with in the following factors.

1. The study is only confined to financial performance analysis of PFL, so all the activities and intended to analyze the financial performance.
2. Last five years' data is taken in consideration for the study purpose.
3. The study is simply a partial fulfillment of MBS degree and prepared with in time constraint.
4. Only one finance company is taken as the sample of the study.

## **1.7 Organization of the Study**

This study is organized in to five chapters. First chapter is introduction. This chapter is included Background of the study, Statement of the problem, Objective of the study, and Significance of the study, Limitation of the study and Organization of the study.

Second chapter is review of literature. This chapter is included Conceptual review and Review of related studies. Past studies conducted by foreign and Nepalese scholars in the performance of financial institution have also been presented.

Third chapter is Research methodology. This chapter is included the research design, Population and sample, the sampling procedure, the sample characteristics, the data gathering procedure and the statistical procedure.

Fourth chapter is Data presentation and analysis. This chapter is included Data presentation, Data analysis and Major finding of the study.

Fifth and last chapter is Summary, Conclusion and Recommendation. Last part of the study is bibliography and appendix.

## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter is included conceptual review, review of research and work papers and review of dissertation. Conceptual review is a most important for every study that provides clear concept on subject of matter for the study. In this section brief explanation of major findings of previous study is undertaken. This chapter is divided into two parts: conceptual review and review of related studies.

#### **2.1 Conceptual Review**

This sub-chapter presents the theoretical aspect of the study. It includes the concept of finance company, function of finance company, historical development of finance company in Nepal, concept of financial performance analysis and concept of CAMEL rating.

##### **2.1.1 Concept of Finance Companies**

Finance companies are the non-bank financial institutions which borrow funds so as to profit on the difference between the rates paid on borrowed funds and those charged on loans. However, they act as the borrowing and lending financial institution with additional financial risk taking management. They came into existence under the finance company act, 2042 and now operating under Bank and registered as Limited Companies at the office of the company can accept time deposits of the maturity of three months to maximum six years (Economic Report, 2004). They can also collect fund by issuing debentures. These companies provide basically three types of loan. Such as hire purchase loan, housing loan and term loan. Some of the finance companies deal with leasing finance also. Finance companies make installments loans. They offer attractive rates on the deposits than commercial Banks.

The primary functions of finance companies are to make loan to both individuals and businesses. These companies are popular among low income and medium class people for financing hire purchase, vehicles, machinery, tools, equipments, durable house hold goods etc. they can also perform merchant banking activities with prior approval of NRB. They are willing to lend to riskier borrowers than commercials Bank. They are free to fix interest rate on both

deposits for Banks and non-bank financial institution (E.Pra.Ashar, 2062). There is no any restriction for finance companies to invest in government securities and NRB Bonds. But, they have to perform their activities as prescribed by the NRB directives.

Upadhaya (2004) writes that finance companies are those intermediaries which link the savers and users of capital. They collect small and scattered saving of the individuals and mobilize it in the productive sectors in the form of investment or loan. Nepupane (1995) stresses that the finance companies in Nepal are established with the slow growth and traditional attitude of commercial Banks in mobilizing financial resources lack of financial innovation and growing interest of the public on Uphar and Dhukuti programmed. In the same way, Sherstha (1995) explains that the finance company is established with a view to provide easy access to fulfill individual credit needs, provide attractive return , incentives and favorable terms on deposits encourage consumers to strengthen their purchasing power. On the other hand , sharma (2005) explains finance company being a financial intermediaries accept time deposits and advance loans to the individuals , firms, companies or institution for agriculture as well as non-agriculture purpose in order to increase economic activities. Finance companies are the market maker, investigator and use of money market and capital market.

### **2.1.2 Background and development of Finance Companies in Nepal**

The economic liberalization initiative for privatization launched in 1990 with the formulation of higher level privatization commission to stimulate economic growth by enhancing the opportunities to enter in to financial sector to support the economic prosperity of the country. (Paudel, 1997,p.12). The slow growth and traditional attitude of commercial Banks in mobilizing resources, lack of financial market has enforced the establishment of finance companies in Nepal.

As a result, Nepal housing development and finance company limited was established as the first finance company in Nepal in 1992 A.D. but it commerce operation as a second finance company. The first finance company to be operated was Nepal finance and saving company limited. Despite the present situation of political disturbance in the country number of finance companies and the growing demand of institutional facilities. As a result, 79 finance companies have been established till May, 2008.(www.nrb.org.com). the organization set up of the finance companies is very new to Nepal because private sector involved in this field only in 1993 A.D.

whereas the finance company act was made in 1985 A.D. finance companies are licensed under the finance company act, 1985 which incorporate and manage the finance companies for the non-banking business to brought about dynamism in the economic development of the country in order to promote economic benefit of the scattered capital in the country.

The reason behind the development of finance companies in Nepal as a whole is also relevant in the case of Pokhara also. As a result, Annapurna Finance Company was established in 1992 A.D. as the first outside Kathmandu valley decentralizing the development of finance companies. Similarly, Pokhara Finance Company limited was established as second finance company in Pokhara. There are altogether 6 Finance companies established in Pokhara till now ([www.brb.org.com](http://www.brb.org.com)).

### **2.1.3 Financial Product and Services**

Finance companies can accept time deposit of the maturity of minimum three months to maximum six years. Generally, the following types of financial products are provided by finance companies.

**Saving deposit:** finance companies accept saving deposit from individuals and organizations. The main purpose of saving deposit is to encourage the habit of saving among the common people and institutions. Depositors can deposit any amount in their accounts in any time. But they can withdraw their money up to limited amount in certain period. Prior information is required incase of withdrawal beyond the restricted limit. Finance companies are allowed to accept saving deposits not exceeding 2.5 times of their core capital. They provide interest on daily balance basis in saving deposit.

**Fixed deposit:** fixed deposits are also known as time deposits or term deposits. They carry a fixed maturity, a penalty is charged for early withdrawal. Savers that do not need money for a stipulated period from 3 months to longer periods ranging up to 6 years are encouraged to keep it in fixed deposits. This type of deposit offers higher interest rate than saving account. Longer the maturity period, higher will be the rate of interest. However, the depositors can take 90 percent loan from the finance companies against the security of fixed deposit receipt.

**Recurring Deposit:** various type of recurring deposit schemes are introduced by finance companies. This scheme was developed to encourage the economical among the people of fixed regular earnings. In this scheme, the depositor is required to deposit the fixed amount in each installment and repaid the total amount with interest at maturity.



Finance companies advance loans to individual firms, companies and institutions. They provide different types of loan which are as follows.

**Hire purchase loan:** under this type of loan, finance companies provide loan for the purchase of vehicle, machines, equipments and tools, durable household goods and other movable property. The loan will be provided in installment basis and the interest rate will be depending on the situation. The repayment of this loan will be in installment with interest.

**Housing loan:** under this type of loan, finance companies provide loan for the purchase of land, construction of house for individuals and warehouse. The interest rate will be up and down according to economic situation. It is issued in installment basis and repayment will also be in installment with interest.

**Term loan:** under this type of loan, finance companies provide loan for the expansion of trade industry, further education, health, tourism, agriculture, water resources, irrigation etc.

**Loan against fixed deposit:** under this type of loan, only the person or organizations that have certain amount on fixed deposit in the company will get loan. Only the fixed depositors can get the loan up to 90 percent of fixed deposit amount. The company charges plus 2 percent interest in this type of loan.

According to the NRB unified directives for Banks non-bank FIs issue number E.pra.Ni.No 15/061/62 (Ashar 2062 BS), finance companies are free to fix interest rates on both the deposits they take and the loan they provide. So, the rate of interest on both the deposits and loans will vary from one finance company to another. Other financial services provide by finance companies are issue of shares and underwriting, act as financial guarantee, collect share applications, purchase and sale of government bonds.

### **2.1.4 Financial Performance Analysis**

Financial performance analysis is a process of identifying the financial strength and weakness of the firm by properly establishing the relationship between item of balance sheet and the profit and loss account. It is undertaken to assess the financial strength and weakness of the firm. The analysis is usually based on financial statement prepared by the firm. Financial analysis serves as the basis for decision making. Moreover this analysis is also made to find out whether to use debt or equity funds to finance planned plant expansion. Financial analysis uses data contented in the firm's financial statement supplemented by the statement of cash flows.

Furthermore, it summarized the large quantity of financial data and makes qualitative judgment about the firm's financial performance. The primary tools of financial analysis are financial ratios. Financial ratios provide a good technique for assessing financial performance.

Financial statements contain a wealth of information, which if properly analyzed and interpreted, can provide valuable insights into firm's performance and position (Chandra, 1992, p.6). Analysis of financial statements is of interest to lenders, investors, security analysts, managers and others. It generally begins with the calculations of set of financial ratios designed to reveal the relative strength and weaknesses of a company as compared to other companies in the same industry, and to show whether the firm's position has been improving or deteriorating over time (Western and Copeland, 1991, p. 59). Financial analysis is a process of identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the items of balance sheet and the profit and loss account (Pandey, 1999, p. 26).

### **2.1.5 Concept of "CAMELS" Rating System**

Federal Reserve Bank of New York (1997) has defined the component of CAMEL as a rating system which produces a composite rating of an institution's overall condition and performance by assessing five components: Capital Adequacy, Asset Quality, Management Administration, Earnings and Liquidity. The CAMEL was later updated with inclusion of sixth component Sensitivity to Market Risk now is referred to as the CAMELS rating system.

CAMEL was originally developed by the FDIC for the purpose of determining when to schedule an on-site examination of a bank (Thomson, 1991; Whalen and Thomson, 1988). The FFIEC is revised in January 1997, the UFIRS, which is commonly referred to as the CAMEL rating system. This system was designed by regulatory authorities to quantify the performance and the financial condition of the banks which it regulates.

The CAMELS rating system is subjective. Benchmarks for each component are provided, but they are guidelines only, and present essential foundations upon which the composite rating is based. They do not eliminate consideration of other pertinent factors by the examiner. The uniform rating system provides the groundwork for necessary supervisors to be reasonably compared and helps institutions supervised by all three US supervisors to be reasonably compared and evaluated. Ratings are assigned for each component in addition to the overall rating of a financial institution's financial condition. The ratings are assigned on a scale from 1

to5. The CAMELS rating are commonly viewed as summary measures of the private supervisory information gathered by examiners regarding financial institutions' overall financial conditions, although they also reflect available public information.

The most important criteria for determining the appropriateness of FIs to act as financial intermediary are its solvency, profitability and liquidity. In this respect, the BCBS of the bank of international settlements (BIS), since 1988, has recommended using capital adequacy, assets quality, management quality, earnings and liquidity (CAMEL) as criteria for assessing FI.

During an on-site bank exam, supervisors gather private information, such as details on problem loans with which to evaluate a bank's financial condition and to monitor its compliance with laws and regulatory policies. A key product of such an exam is a supervisory rating of the bank's overall condition, commonly referred to as a CAMELS rating. CAMELS rating system is used by the three federal banking supervisors [the Federal Reserve, the FDIC, and the office of the comptroller of the currency (OCC)] and other financial supervisory agencies to provide a convenient summary of bank conditions at the time of an exam. In Nepal, the NRB plays the supervisory role for evaluating financial institution's financial condition through rating the financial institution's in accordance to CAMELS is still in its initial phase.

## **Composite Rating**

The FFIEC press release, USA (1996) describes the composite rating and defines the six components rating. According to the press release, composite ratings are based on a careful evaluation of an institution's managerial, operational, financial and compliance performance. The six key components used to assess an institution's financial condition and operations are: capital adequacy, asset quality, management capability, earnings quality, the adequacy of liquidity and sensitivity to market risk. The rating scale range from 1 to 5, with a rating of 1 indicating: the strongest performance and risk management practices relative to the institution's size, complexity, and risk profile and the level of performance inadequate risk management practices relative to the institution's size, complexity, risk profile and the greatest supervisory concern. The composite ratings are defined in the FFIEC press releases (1996) are as follows.

**Composite 1:** FIs in this group are in every respect and generally have components rated 1 or 2. Any weaknesses are minor and can be handled in a routine manner by the board of directors and management. These FIs are the most capable of withstanding the vagaries of business condition

and are resistant to outside influences such as economic instability in their trade area. These FIs are in substantial compliance and risk management practices relative to the institution's size, complexity and profile and give no cause for supervisory concern.

**Composite 2:** FIs in this group are fundamentally sound. For a FI to receive this rating, generally no component rating should be more severe than 3. Only moderate weaknesses are present and are well within the board of directors' and management's capabilities and willingness to correct. These FIs are in substantial compliance with laws and regulations. Overall risk management practices are satisfactory relative to the institution's size, complexity and risk profile.

**Composite 3:** FIs in this group exhibit some degree of supervisory concern in one or more of the component areas. These FIs exhibit a combination of weaknesses that may range from moderate to severe: however, the magnitude of the deficiencies generally will not cause a component to be rated more severely than 4. FIs in this group generally are more vulnerable to outside influences than those institutions rated a composite 1 or 2. Additionally, these FIs may be in significant noncompliance with laws and regulations.

**Composite 4:** FIs in this group generally exhibit unsafe and unsound practices or conditions. There are serious financial or managerial deficiencies that result in unsatisfactory performance. The problems range from severe to critically deficient. The weaknesses and problems are not being satisfactorily addressed or resolved by the board of directors and management. FIs in this group generally are not capable of withstanding business fluctuations. There may be significant noncompliance with laws and regulations. Risk management practices are generally unacceptable relative to the institution's size, complexity and risk profile. Close supervisory attention is required, which means, in most cases, formal enforcement action is necessary to address the problems. Institution in this group poses a risk to the deposit insurance fund. Failure is a distinct possibility if the problems and weaknesses are not satisfactorily addressed and resolved.

**Composite 5:** FIs in this group exhibit extremely unsafe and unsound practices or conditions exhibit a critically deficient performance, often contain inadequate risk management practices relative to the institution's size, complexity and risk profile are of the greatest supervisory concern. The volume and severity of problems are beyond management's ability or willingness to control or correct. Immediate outside financial or other assistance is needed in order for the

FIs to be viable. Ongoing supervisory attention is necessary. Institutions in this group pose a significant risk to the deposit insurance fund and failure is highly probable.

### 2.1.6 CAMEL Components

Each of the components rating description in the FFIEC press release (1996) is divided into three sections: an introductory paragraph a list of the principal evaluation factors that relate to that component and a brief description of each numerical rating for that component. Some of the evaluation factors are reiterated under one or more of the other components to reinforce the interrelation between components. The listing of evaluation factors for each component rating is in no particular order of importance. The description of the CAMELS components are made as under based on the FFIEC press release (1996).

#### 2.1.6.1 Capital Adequacy

Bank capital performs several important functions. Most importantly they are:

**Absorbs Losses:** Capital allows institution to continue operating as going concern during periods when operating losses or other adverse financial results are experienced.

**Promotes Public Confidence:** Capital provides a measure of assurance to the public that an institution will continue to provide financial services even when losses have been incurred, thereby helping to maintain confidence in the banking system and minimize liquidity concerns.

**Restricts Excessive Asset Growth:** Capital along with minimum capital ratio standard, restrains unjustified asset expansion by requiring that asset growth be funded by a commensurate amount of additional capital.

**Provides Protection to Depositors:** Placing owners at significant risk of loss, should the institution fail, helps to minimize the potential “moral hazard” and promotes safe and sound banking practices.

Capital is necessary for the bank to operate. While many areas of a bank are important and subject to scrutiny, capital adequacy is the area that triggers the most regulatory of capital adequacy, which are:

- ) The Tier 1 Risk-Based capital ratio.
- ) The total risk-based capital ratio.
- ) The tier 1 leverage ratio.

The capital adequacy of an institution is rated based upon, but not limited to, an assessment of the following evaluation factors:

- ) Size of the bank.
- ) Volume of inferior quality assets.
- ) Bank's growth experience, plans and prospects.
- ) Access to capital markets.
- ) Non-ledger assets and sound values not shown on books (real property) at nominal values, charge-offs with firm recovery values, tax adjustments).

The FDIC improvement Act of 1991, which created a link between enforcement actions and the level of capital, held by a bank. This supervisory link is commonly known as prompt Corrective Action (PCA) and aims to resolve banking problems early and at the least cost to the bank insurance fund. PCA has classified the banks as:

**Well-Capitalized:** To be considered well-capitalized, a bank will meet the following conditions:

- ) Total risk-based capital is 10 percent or more.
- ) Tier 1 risk-based capital ratio is 6 percent or more.
- ) Tier 1 leverage ratio is 5 percent or more.

In addition to these ratio guidelines, to be well capitalized bank can not be subject to an order, a written agreement, a capital directive or a PCA directive.

**Adequately Capitalized:** to be considered well capitalized, bank will meet the following conditions:

- ) Total risk-based capital ratio is at least NRB minimum capital adequacy ratio requirement.
- ) Tier 1 risk-based capital ratio is at least NRB minimum tier 1 capital ratio requirement.
- ) Tier 1 leverage ratio is at least 4 percent.

**Undercapitalized:** to be considered undercapitalized, a bank will meet the following conditions:

- ) Total risk based capital ratio is less than 8 percent.
- ) Tier 1 risk based capital ratio is less than 4 percent or tier 1 leverage ratio is less than 4 percent.

**Significantly Undercapitalized:** To be considered significantly undercapitalized a bank will meet the following conditions:

- J Total risk based capital ratio is less than 6 percent.
- J Tier 1 risk based capital ratio is less than 3 percent
- J Tier 1 leverage ratio is less than 3 percent.

### **BASEL Capital Accord**

The BASEL committee on banking supervision (BCBS) is a committee of banking supervisory authorities that was established by central bank governors of the group of ten countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States. It usually meets at the Bank for International Settlements (BIS) in Basel, where its permanent office is located. (BIS, November 2005)

Starting with its publication of "International Convergence of Capital Measurement and Capital Standards" in July 1988, popularly known as Basel Capital Accord, BCBS set out a minimum capital requirement of 8 percent for banks. Prior to that, the committee introduced 25 core principles on effective banking supervision. In 1996, the committee incorporated market risk in the 1988 capital accord. With a major revision of the 1988 accord, there followed the revised publication of the committee's first round of proposals for revising the capital adequacy framework in June 1999 popularly known as Basel Capital Accord. Since then, it has been revised in January 2001, April 2003 and released its final revised framework updated in November 2005. In this accord, the concept and rationale of the three pillars (minimum capital requirements, supervisory review and market discipline) approach was introduced, on which the revised framework is based. In the revised framework, BCBS retains key elements of the 1988 capital adequacy framework, including the general requirement for banks to hold total capital equivalent to at least 8 percent of their risk-weighted assets; the basic structure of the 1996 market risk amendment regarding the treatment of market risk; and definition of eligible capital. (BIS, 2005)

The new Basel capital accord (Basel II), shall be applicable to internally active banks all over the world with effect from end of 2006. Implementing the new accord in Nepal has been a challenging task for the supervisors as well as FIs. Hence, certain preparatory homework is needed to Nepalese financial system to implement Basel II. NRB and FIs need to have coordinated effort efficiency in Nepalese banks and FIs to establish certain baseline for the

effective implementation of BASEL . In this regard, second interaction program was held in Nepal with the banks executive to make them aware of the new development. The commercial banks so far has shown positive attitude towards the implementation of BASEL . “New capital accord implementation preparatory core committee” was drafted “NRB’s concept paper on new capital accord”. According to the program of new capital accord implementation, concept paper was forwarded to all the commercial banks for comments and recommendations. A form was also developed so that commercial banks classify their exposures as per the new approach, which was reviewed by the “BASEL- implementation working group”. NRB has adopted Basel core principles for effective supervision as guideline for supervision of commercial banks. Core principle methodology adopted by BCBS provides a uniform template for both self-assessment and independent assessment. It involves four part qualitative assessment system: compliant, largely compliant, materially non-compliant and non-compliant. For each principle essential and additional criteria are defined. To achieve a “compliant” assessment with a principle, all essential and additional criteria must be met without any significant deficiencies. A “largely compliant” assessment is given if only minor shortcomings are observed, and these are not seen as sufficient to raise serious doubts about the authority’s ability to achieve the objective of that principle. A “materially non-compliant assessment is given when the shortcoming is sufficient to raise doubts about the authority’s ability to achieve compliance, but substantial progress towards compliance has been achieved.

There is no doubt that the new accord though complex carries a lot of virtues and will be a milestone in improving banks internal mechanism and supervisory process and beneficial to the commercials banks.

### **Capital Adequacy Norms by NRB**

NRB has form time to time stipulated minimum capital fund to be maintained by the banks on the basis of risk weighted assets. The total capital fund is sum of core capital and supplementary capital. According to the NRB unified directives for Banks and non-banks FIs issue number E. pra.Ni.no 01/061/062 (Ashar 2062 BS), the capital funds of a bank comprise the following:

**Core Capital:** Core capital of a bank includes paid up equity, share premium, non-redeemable preference shares, general reserve and accumulated profit and loss. However, where the amount of goodwill exists, the same shall be deducted for the purpose of calculation of the core capital.



Supplementary Capital: Supplementary capital includes general loan loss provision, exchange fluctuation reserve, assets revaluation reserve, hybrid capital instruments, unsecured subordinated term debt and other free reserves not allocated for specific purpose.

Banking and Financial institution Ordinance (BAFIO) (2061) also assimilates the same things, which were included and explained in NRB Act 2058, in regard of bank capital. NRB Act is effective from 1<sup>st</sup> Shrawan 2058(July 16<sup>th</sup> 2001). According to the NRB directive, minimum paid-up capital requirement for establishment of finance company is as under:

- J Rs 10 corer to operate all over except Kathmandu valley.
- J Rs 20 corer to operate all over Nepal.
- J Rs 30 corer to operate all over Nepal including leasing finance.

### **2.1.6.2 Assets Quality**

Asset quality is one of the most critical areas in determining the overall condition of the finance company. The primary factor effecting overall asset quality is the quality of the loan portfolio and the credit administration program. Loans are usually the largest of the asset items and can also carry the greatest amount of potential risk to the company's capital account. Security can often be a large portion of the assets and also have identifiable risks. Other items which impact a comprehensive review of asset quality are other real estate, other assets, off-balance sheet items and, to a lesser extent, cash and due from accounts and premises and fixed assets (Koch and Macdonald, 2004).

Management often expends significant time, energy and resources on their asset portfolio, particularly the loan portfolio. Problems within this portfolio can detract from their ability to successfully and profitably manage other areas of the institution. Examiners need be diligent and focused in their review of the various asset quality areas, as they have an important impact on all other facets of finance company operations.

#### **Evaluation of Asset Quality**

The evaluation of asset should consider the adequacy of the allowance for loan and lease losses (ALLL) and weigh the exposure-party, issuer or borrower default under actual or implied contractual agreements. All other risks that may affect the value or marketability of an institution's assets, including but not limited to, operating, market, reputation, strategic, or compliance risks, should also be considered. Prior to assigning an asset quality rating, several

factors should be considered. The factors should be reviewed within the context of any systematic weaknesses, as opposed to isolated problems, should be given appropriate consideration. The following is not a complete list of all possible factors that may influence an examiner's assessment; however, all assessment should consider the following:

- ✓ The adequacy of underwriting standards, soundness of credit administration practices, and appropriateness of risk identification practices.
- ✓ The level, distribution, severity, trend of problems, classified, on accrual, restructured, 1 delinquent and non-performing assets for both on-and off –balance sheet transactions.
- ✓ The adequacy of the allowance for loan and lease losses and other asset valuation reserves.
- ✓ The credit risk arising from or reduced by off-balance sheet transactions, such as unfunded commitments, credit derivatives, commercial and standby letters of credit and lines of credit.
- ✓ The diversification and quality of loan and investment portfolios.
- ✓ The extent of securities underwriting activities and exposure to counter-parties in trading activities.
- ✓ The existence of asset concentrations.
- ✓ The adequacy of loan and investment policies, procedures and practices
- ✓ The ability of management to properly administer its assets, including the timely identification and collection of problem assets.
- ✓ The adequacy of internal controls and management information systems.
- ✓ The volume and nature of credit documentation exceptions.

As with the evaluation of other component ratings, the above factors, among others, should be evaluated not only according to the current level but also considering any ongoing trends. The same level might be looked on more or less favorably depending on any improving or deteriorating trends is one or more factors.

### **Rating the Asset Quality Factor**

The asset quality rating definitions are applied following a thorough evaluation of existing and potential risks and the mitigation of those risks. The definitions of each rating are as follows:

1. Rating of 1 indicates strong asset quality and credit administration practices. Identified weaknesses are minor in nature and risk exposure is modest in relation to capital

protection and management's abilities. Asset quality in such institutions is of minimal supervisory concern.

2. A rating of 2 indicates satisfactory asset quality and credit administration practices. The level and severity of classifications and other weaknesses warrant a limited level of supervisory attention. Risk exposure is commensurate with capital protection and management's abilities.
3. A rating of 3 is assigned when asset quality or credit administration practices are less than satisfactory. Trends may be stable or indicate deterioration in asset quality. The level and severity of classified assets, other weaknesses, and risks require an elevated level of supervisory concern.
4. A rating 4 is assigned to FIs with deficient asset quality or credit administration practices. The levels of risk and problem assets are significant, inadequately controlled, and subject the FI to potential losses that, if left unchecked, may threaten its viability.
5. A rating of 5 represents critically deficient asset quality or credit administration practices that present an imminent threat to the institution's viability.

### **Non-performing Assets (NPAs)**

Loans and advances of FIs need to be serviced by either the principal or the interest of the amount borrowed in stipulated time as agreed by the parties at the time of loan settlement. NRB unified directives E.pra.Ni 20/061/62 (Ashar, 2062 BS) for banks and non-bank FIs, defines non performing loans as loan classified as substandard, doubtful and loss or loans which are past due by principal for more than 3 month. Dhungana (2006) in his column states that the details and classification of standards of Non-performing loans may from country to country depend upon their own banking system requirement norms. He further states that unlike Nepal, countries like Korea, Indonesia, Phillipines, India have classified the loan into five categories on which normal and special categories are classified as performing loans whereas sub standard, doubtful and estimated loss categories are considered as non performing loans. The study conducted by World Bank highlights that all commercial banks of south asian countries except Nepal and srilanka classify loans as non-performing only after it has been in arrear for at least six months (Pernia, 2004). NRB unified directives for banks and non-bank FIs through directive number E.pra.Ni.No 02/061/62 (ashar 2062 BS) classifies NPL, according to international practice, into three categories depending on the temporal position of loan default, Substandard, Doubtful and loss

Assets are the categories on the basis of the time barred to repay either interest or the principal. The degree of NPA assets depend solely on the length of time the asset has been in the form of non-obliged by the loaner. The more time it has elapsed the worse condition pf assets is being perceived and such assets are treated accordingly. However, the treatment of NPAs depends according to countries. No uniform rule seems to apply (Koch and Macdonald, 2004).

### **Factors Causing NPAs**

Dhungana (2006) in his column broadly categorized in to internal and external factors for high level of NPA in Nepalese banking system. The following factors can also be the reason for causing NPA:

1. NPAs may arise due to failure of business for which loan was used. Whatever may be the reasons for failure of business, it obstructs the carrying out timely payments of financial obligations.
2. On the other part of appraising institutions, the defect in appraising projects breed mismatch not only in investment planning but also in receivables due to defective projection of returns. Large positions of NPAs in developing countries arise due to defective and standard credit appraisal system.
3. Monitoring of projects in time provide insurance against of enterprises through rectification of minor flaws that ape ear during the course of operation. Inability of sound monitoring system can also lead to failure of the project.
4. The resources of FIs collected through deposits from people may be misutilised. Recklessness or negligence on the part of the officials while approving the loan will turn in to default.
5. Attitude of the officials that does not amount to sincere corporate culture also leads to breed drawbacks in the payment of dues to FIs.
6. The credit programmers sponsored by the government are regarded as the source of NPAs. For political benefits government, without assessing the financial feasibility of the credit programmer, announces and compels the credits agencies to go along with the declared policies.
7. Moreover, dishonest politicians often want free ride of on the amounts of loan delivered by credit agencies under government designed programmers. Such loans are hardly

recoverable. The fact is evidence from the experience in Nepal and India by the manifestation of higher percentage of NPAs found in priority sector loans.

8. Quite often the definition of the NPAs and accounting norms adopted by concerned agencies also amount to higher or lower magnitude of such assets. Each institution may have different norms to declare the assets whether it is not-performing. The income cycle of the project and amount of loan involved, set the installments of loan repayment. The nature of project also determines the level of NPAs.
9. Slow down in economy, global as well as domestic particularly in industrial sector. Contribution to adversely affect the bottom-line of borrower units and their capacity to service the debt (Taore-1999). Recession debars the economic activities to run smoothly which affect the performance of FIs.

### **Implication of NPAs**

Financial crisis emerged from Thailand in south east Asian countries largely is considered to be due to higher level of NPAs existed with the FIs. The situation was grave when the asset stopped to repay loans to credit agencies which was borrowed from overseas was matured. Investment in domestic market did not provide returns, hence the amount involved turned into non-performing while repayment on due time was the principal reason to result in financial crisis that terminated into economic crisis in south East Asian countries. Financial crisis occurred in Asia had the higher proportion of NPAs emanate from loans which constituted highest share in the total assets of FIs. Countries with higher proportion of loan in the total assets of banks and finance companies became vulnerable while institutions with lower share of loans in the total assets were affected less.

Empirically, it has been seen that Nepal and having lower proportion of loan in respect of total assets provided cushion to make ample provision and therefore were least affected by the financial crisis. On the other hand the south East Asian with relatively higher proportion of loans in the total assets of the FIs fell victim of the shock of regional crisis.

The credit institutions are repelled from further investment after the interest accrual or due principal repayment has stopped. Interest incomes from such assets are reduced to the extent of declared amount as NPAs. As the assets declared NPA emanate from the deposits, it puts the depositors fund at risk. The credit agencies are put to an extra amount of liability by regulatory

authorities in the form of provision. The amount required for provision depends on the level of NPAs and their quality. Rising level of NPAs create a psyche of worse environment especially in the financial sector. Depositors are not interested to save. Rather the hard earned savings are diverted to consumptions. Consequently the savings pattern hence investment is affected thereby creating unhealthy atmosphere in the financial sector.

### **NRB Directives Related to Assets Quality**

NRB unified directive for banks & non-bank FIs (Ashar 2062 BS) through directive number E. pra.Ni.No 02/061/62, requires the banks to classify outstanding loans and advances on the basis of aging of principal amount. As per the directive the loans and advances should be classified into the following four categories:

**Pass:** loans and advances whose principal amount is not past due over for 3 months included in this category. These are classified and defined as performing loans.

**Substandard:** All loan and advances that are past due for a period of 3 months to 6 months included in this category.

**Doubtful:** All loans and advances, which are past due for a period of 6 months to 1 year, included in this category.

**Loss:** All loans and advances which are past due for more than 1 year and have least or thin possibility of recovery or considered unrecoverable shall included in this category. Besides this, any loan whether past due or not, in situations of inadequate security, borrower declared insolvent, no whereabouts of the borrower or misuse of borrowed fund, are to be classified as loss category.

The directive further requires banks to provision for loan loss, on the basis of the outstanding loans and advances and bills purchased classified as above. Loan loss provision set aside for performing loans is defined as General Loan provision and that set aside for non-performing loan as specific loan loss provision.

<b><u>Loan Class</u></b>	<b><u>Loan Loss Provision</u></b>
Pass	1%
Substandard	25%
Doubtful	50%
Less	100%

With the objectives of lowering the concentration risk of bank loans to a few big borrowers and to increase the access of small and middle size borrowers to the bank loans, NRB through directive number E. pra.Ni.No 30/061/62 limits commercial banks to extend credit to a single borrower or group related borrowers up to 25% of core capital for fund based credit facilities and not more than 50% of its core capital for non fund based credit facilities like letters of credit, guarantees, acceptances, commitments.

The facilities extended against bank's own fixed time deposit, government securities, NRB bonds, counter guarantees of world Bank/Agriculture Development Bank/international A + rated banks (as per list of top 1000 world international banks published by the London based magazine, "The Banker" are excluded from the restriction. likewise advances and facilities to be used for the purpose of importing specified merchandise by the following public corporation are also excluded:

<u>Name of corporation</u>	<u>Merchandise</u>
Nepal oil corporation	Petrol, Diesel, Kerosene, L.P.G.
Nepal Food Corporation	Cereals

### **2.1.6.3 Management Quality**

The capability of the board of directors and management, in their respective roles, to identify, measure, monitors and controls the risks of an institution's activities and to ensure a FI's safe, sound and efficient operation in compliance with applicable laws and regulation is reflected in this rating. Depending on the nature scope of an institution's activities, management practices may need to address some or all of the following risks: credit, market, operating or transaction, reputation, strategic, compliance, legal, liquidity and other risks. Sound management practices are demonstrated by: active oversight by the board of directors and management; competent personnel; adequate policies processes, and controls taking into consideration the size and sophistication of the institution; maintenance of an appropriate audit program and internal control environment: and effective risk monitoring and management information systems. This rating should reflect the board's and management's ability as it applies to all aspects of banking operations as well as other financial service activities in which the institution is involved (Mishkin and Eakins, 2006). The capability and performance of management and the board of

directors is rated based upon, but not limited to, an assessment of the following evaluation factors:

- J The level and quality of oversight and support of all institution activities by the board of directors and management.
- J The ability of the board of directors and management, in their respective roles to plan for, and respond to, risks that may arise from changing business condition or the initiation of new activities or products.
- J The adequacy of and conformance with, appropriate internal policies and controls addressing the operations and risks of significant activities.
- J The accuracy, timelines and effectiveness of management information and risk monitoring systems appropriate for the institution's size, complexity and risk profile.
- J The adequacy of audits and internal controls to: promote effective operations and reliable financial and regulatory reporting; safeguard assets; and ensure compliance with laws, regulations and internal policies.
- J Compliance with and regulations.
- J Responsiveness to recommendations from auditors and supervisory authorities.
- J Management depth and succession.
- J The extent that the board of directors and management is affected by, or susceptible to, dominant influence or concentration of authority.
- J Reasonableness of compensation policies and avoidance of self-dealing.
- J Demonstrated willingness to serve the legitimate banking needs of the community.
- J The overall performance of the institution and its risk profile.

### **Rating the Management Factors**

1. A rating of 1 indicates strong performance by management and board of directors and strong risk management practices relative to the institution's size, complexity and risk profile. All significant risks are consistently and effectively identified, measured, monitored and controlled. Management and the board have demonstrated the ability to promptly and successfully address existing and potential problems and risks.



2. A rating of 2 indicates satisfactory management and board performance and risk management practices relative to the institution's size, complexity and risk profile. Minor weakness may exist, but are not material to the safety and soundness of the institution and are being addressed. In general, significant risks and problems are effectively identified, measured and controlled.
3. A rating of 3 indicates management and board performance that need improvement or risk management practices that are less than satisfactory given the nature of the institution's activities. The capabilities of management or the board of directors may be insufficient for the type, size or condition of the institution. Problems and significant risks may be inadequately identified, measured, monitored or controlled.
4. A rating of 4 indicates deficient management and board performance or risk management practices that are inadequate considering the nature of an institution's activities. The level of problems and risk exposure is excessive. Problems and significant risks are inadequately identified, measured, monitored or controlled and require immediate action by the board and management to preserve the soundness of the institution. Replacing or strengthening management or the board may be necessary.
5. A rating of 5 indicates critically deficient management and board performance or risk management practices. Management and the board of directors have not demonstrated the ability to correct problems and implement appropriate risk management practices. Problems and significant risks are inadequately identified, measured, monitored or controlled and now threaten the continued viability of the institution. Replacing or strengthening management or the board of directors is necessary.

Researchers construct various financial ratios to capture management quality. Meyer and Pifer (1970) state that "Managerial ability is like Lord Action's elephant difficult to define easy to identify. Over a period of time differences between good and poor management will be systematically reflected by the balance sheet and income data and analysis of such data should enable prediction of failures". Graham and Homer (1988) evaluate the factors that contributed to the failures of 16 national banks in USA and conclude that more than 60 percent of failed banks

experienced poor management, measured by such variables as poorly followed loan policies, inadequate problem loan identification systems and non-existent or poorly followed asset/liability management.

Barr and Siems (1993) provide the only direct measurement of management quality, using data envelopment analysis (DEA) to quantify management. They concluded that the predictive performance of their failure-prediction model improves markedly with the inclusion of the DEA efficiency variable.

Sinkev (1975) purported that a specific ratio representative of management is difficult to identify, but his view was that many ratios are proxies. Often, researchers (Tam and Kiang, 1992; Espahbodi, 1991; West, 1985) have not attempted to include a variable to represent management quality. Thomson (1991) and Whalen (1991) employed the ratio of overhead expense to total assets as representative of management operating efficiency. As none of the ratios from previous research exhibited significance.

#### **2.1.6.4 Earning Quality**

Under the UFIRS, in evaluating the adequacy of FIs earning performance, consideration should be given to:

- ) The level of earning, including trends and stability.
- ) The ability and provide for adequate capital through retained earnings.
- ) The quality and sources of earnings
- ) The level of expenses in relation to operations.
- ) The adequacy of the budgeting systems, forecasting processes and management information systems in general.
- ) The adequacy of provisions to maintain the ALLL and other valuation allowance accounts.
- ) The earnings exposure to market risk as interest rate, foreign exchange, price risks.

From a bank regulator's standpoint, the essential purpose of bank earnings, both current and accumulated, is to absorb losses and augment capital. Earnings are the initial safeguard against the risks of engaging in the banking business and represent the first line of defense against capital depletion resulting from shrinkage in asset value (Squanders and Cornett, 2004). Earnings performance should also allow the bank to remain competitive by providing the resources required to implement management's strategic initiatives.

## **Evaluation of Earnings Performance**

An analysis of earnings comprise of examiner reviewing each component of the Earnings Analysis Trail and Ratio Analysis. Generally, the analysis of earnings begins with examiner reviewing each component of the earnings analysis trail. The earnings analysis trail provides a means of isolating each major component of the income statement for individual analysis. The earnings analysis trail consists of the following income statement components: net interest income, non-interest income, non-interest expenses, provision for loan and lease losses and income taxes. Each component of the earnings analysis trail is initially reviewed in isolation. Typically, ratios are examined to determine a board level view of the component's performance. The level of progression along the analysis trail will depend on a variety of factors including the level and trend of the ratios, change since the previous examination and the institution's risk profile.

## **Earning Ratio Analysis**

Several key ratios used in the earnings analysis are used as shown below:

- ) Net income to average assets ratio [return on assets (ROA) ratio]
- ) Net interest income to average assets ratio.
- ) Net interest income to average earnings assets ratio.
- ) Non-interest income to average assets ratio.
- ) Non-interest expenses to average assets ratio.
- ) Provision for loan and lease losses (PLLL) to average assets ratio.
- ) Realized gains/losses on securities to average assets ratios.

Earning quality is the ability of a bank to continue to realize strong earnings performance. It is quite for a bank to register impressive profitability ratios and high volumes of income by assuming an unacceptable degree of risk. An inordinately high ROA is often an indicator that the bank is engaged in higher risk activities. For example, bank management may have taken on loans or other investments that provide the highest return possible, but are not of a quality to assure either continued debt servicing or principal repayment. Seeking higher rates for earning assets with higher credit risk will boost short-term earnings. Eventually, however, earnings may suffer if losses in these higher-risk assets are recognized.

In addition, certain of the bank's adversely classified and non-performing assets, especially those upon which future interest payments are not anticipated, may need to be reflected on a non-accrual basis for income statement purposes. If such assets are not placed on a non-accrual status, earnings will be overstated. Similarly, material amounts of troubled debt restructured assets may have an adverse impact on earnings.

An institution's assets quality has a close relationship to the analysis of earnings quality. Poor asset quality may necessitate increasing the PLLL to bring the ALLL to an appropriate level and must be reviewed for impact on earnings quality.

### **Rating the Earnings Factor**

1. Earnings rated 1 is strong. Earnings are more than sufficient to support operations and maintain adequate capital and allowance levels after are given to asset quality, growth and other factors affecting the quality, quantity and trend of earnings.
2. Earnings rated 2 would be satisfactory and sufficient support operations and maintain adequate capital and allowances levels after consideration is given to asset quality, growth and other factors affecting the quality, quantity and trend of earnings. Earnings that are relatively static or even experiencing a slight decline, may receive a 2 rating provide the institution's level of earnings is adequate in view of the assessment factors listed above.
3. Earnings rated 3 may need to improve. Earnings may not fully support operations and provide for the accretion of capital and allowance levels in relation to the institution's overall condition, growth and other factors affecting the quality, quantity and trend of earnings.
4. A rating of 4 indicates earnings that are deficient. Earnings are insufficient to support operations and maintain appropriate capital and allowances levels. Erratic fluctuations in net income or net interest margin, the development of significant negative trends, nominal or unsustainable earnings, intermittent losses, or a substantive drop in earnings from the previous years may characterize institutions so rated.
5. A rating of 5 indicates earnings that are critically deficient. A FI with earnings rated 5 is experiencing losses that represent a distinct threat to its viability through the erosion of capital.

### **2.1.6.5 Liquidity**

In evaluating the adequacy of a FI's liquidity position, consideration should be given the level and prospective sources of liquidity compared to funding needs, as well as to the adequacy of funds management practices relative to the institution's size, complexity and risk profile. In general, funds management practices should ensure that an institution is able to maintain a level of liquidity sufficient to meet its financial obligation in a timely manner and to fulfill the legitimate banking needs of its community. Practices should reflect the ability of the institution to manage unplanned change in funding sources, as well as react to change in market conditions that affect the ability to quickly liquidate assets with minimal loss. In addition, funds management practices should ensure that liquidity is not maintained at a high cost or through undue reliance on funding sources that may not be available in times of financial stress or adverse changes in market conditions. Liquidity is rated based upon, but not limited to, an assessment of the following evaluation factors:

1. The adequacy of liquidity sources compared to present and future needs and the ability of the institution to meet liquidity needs without adversely affecting its operations or condition.
2. The availability of assets readily convertible to cash without undue loss.
3. Access to money markets and other sources of funding.
4. The level of diversification of funding sources, both on and off balance sheet.
5. The degree of reliance on short-term, volatile sources of funds, including borrowings and brokered deposits to fund longer-term assets.
6. The trend and stability of deposits.
7. The ability to securities and sell certain pools of assets.
8. the capability of management to properly identify, measure, monitor and control the institution's liquidity position, management information systems, and contingency funding plans.

#### **Rating the Liquidity Factors**

1. A rating of 1 indicates strong liquidity levels and well-developed funds management practices. The institution has reliable access to sufficient sources of funds on favorable terms to meet present and anticipated liquidity needs.

2. A rating of 2 indicates satisfactory liquidity levels and funds management practices. The institution has access to sufficient sources of funds on acceptable terms to meet present and anticipated liquidity needs. Modest weaknesses may be evident in funds management practice.
3. A rating of 3 indicates liquidity levels or funds management practices in need of improvement. Institutions rated 3 may lack ready access to funds on reasonable terms or may evidence significant weaknesses in funds management practices
4. A rating of 4 indicates deficient liquidity levels or inadequate funds management practices. Institutions rated 4 may not have or be able to obtain a sufficient volume of funds on reasonable terms to meet needs.
5. A rating of 5 indicates liquidity levels or funds management practices so critically deficient that the continued viability of the institution is threatened. Institutions rated 5 require immediate external financial assistance to meet maturing obligations or other liquidity needs.

### **Liquidity Management Concepts**

There are several principles which the economists have propounded to resolve the conflicts between objectives of liquidity, safety and profitability. These concepts are discussed as under:

**The Real Bills Doctrine:** the real bills doctrine states that FIs should extend only short-term self-liquidating productive loans to business firms. Self liquidating loans are those meant to finance the production, storage, transportation and distribution. When such goods are ultimately sold, the loans are considered to liquidate themselves automatically. The short-term self liquidating productive loan has three advantages. Firstly, they possess liquidity due to which, they liquidate themselves automatically. Secondly, there is no risk of running into bad debts since earn income for the banks as they are productive.

**The Shiftability Theory:** H.G. Moulton propounded the shiftability theory of bank liquidity. According to view, an asset to be perfectly shifability must be immediately transferable without capital loss when the need for liquidity arises. But in a general crisis requires that all banks should possess such assets which can be shifted on to the central bank which is the lender of the last resort. This theory has certain elements of truth.

**The Anticipated Income Theory:** The Anticipated Income Theory was developed by H.V. proch in 1944 based on term loan practices by USA commercial banks. According to this theory; the bank plans for liquidation of long term loans from the anticipated income of the borrower regardless of the nature and character of a borrower's business. The bank puts restrictions on the financial activities of the borrower while granting this loan. Consequently, the bank takes into consideration not only the security but with major consideration the anticipated earnings of the borrower. This is superior to the bills doctrine and the shiftability theory because it fulfills the three objectives of liquidity, safety and profitability.

**The Liabilities Management Theory:** This theory was developed in the 1960s. According to this theory, there is no need for banks grant self-liquidating loans and keep liquid assets because they can borrow reserve money in the money market in case of need. A bank can acquire reserves by crating additional liabilities against it self, from different sources. These sources includes the issuing of time certificates of deposit, borrowing from the other commercial banks, borrowing from the central bank, raising of capital funds by issuing shares, and by plowing back of profits.

### **Liquidity Management Techniques**

Techniques for liquidity assessment have evolved over the years with the significant changes in the monetary policy operating procedures. Despite the uncertainty in predicting liquidity conditions, econometric models could be used to provide first indicative forecasts, given the estimated structure of inter-relationships based on past information. The treasury or fund manager of any banks and FIs should adopt following techniques for effective liquidity management.

**Liquidity Planning:** The liquidity planning entails the accurate estimation of liquidity needs and the structuring of the portfolio to meet the expected liquidity needs. To ensure that funds are available to meet the liquidity needs at the lower cost, the treasury manager of the banks and FIs must manage its money position to comply with reserve requirements as well as managing its liquid sources.

**Managing the Cash Position:** A cash position refers to the amount in the process of collection and currency and demand balances due from other banks and the central bank. Numerous

transactions that cause an inflow or outflow of cash during a day continually change the cash position of the banks and FIs. Because cash yields no income, cash holdings must be limited to a minimum. The treasury/ fund manager may invest any excess cash or may acquire additional cash sources from inter bank loans or from discount window at the central bank.

**Managing the Liquidity Position:** Once the liquidity needs of the banks and FIs have been estimated, the treasury manager must decide how these needs are to be funded. The banks and FIs must choose between two general liquidity management strategies, namely, asset management and liability management. In the liability management, money is borrowed to meet liquidity needs. A combination of these strategies is normally employed. The following guidelines must be kept in mind by the treasury manager when managing the liquidity position of the banks and FIs:

- ) The treasury managers should know the timing of large withdrawals from big credit clients or depositors in order to plan.
- ) The priorities and objectives of liquidity management should be clear and properly communicated.
- ) The needs and decisions must be evaluated on a continuous basis to invest access liquidity and avoid liquidity shortages.

**Controlling Liquidity Risk:** To assess how well the banks and FIs are managing its liquidity position, the management should be cautious on the following signals from the marketplace that indicate pending liquidity problems:

- ) Public confidence in terms of withdrawal of deposits from the banks and FIs.
- ) Share price behavior, falling share prices indicates perceived liquidity problems.
- ) Risk premiums on money market borrowings.
- ) Losses because of the hasty sale of assets for liquidity purposes.
- ) Inability to meet the demands of new credits customers.
- ) More frequent and larger borrowings from the central bank.

Considering the aforementioned technique, the treasury manager must also consider the purpose of the liquidity need, the length of time for which funds are needed, the access to liability markets, the costs and characteristics of various liquidity sources and interest rate forecast. It is received that the large banks have better access to liability liquidity sources due to



the better quality assets and a broader capital base. The small banks are to rely more on assets for liquidity. Thus, an effective liquidity management is essential to reduce costs.

A liquidity ratio measures an entity's ability to pay its short-term obligations out of liquid assets. Liquidity was generally represented in previous studies with a ratio of cash (with some adjustment for short-term liquid securities) to total assets (Tam and Kiang, 1992; Espahbodi, 1991; Lane et. al., 1986; Martin, 1977; Sinkey, 1975).

### **NRB Directives Related to Liquidity**

NRB had given the institution to the commercial banks since 2023 B.S. to deposit the amount the amount ratio of 8 percent from their deposit liability. In the beginning of 2047 B.S. the increase in the quantity of internal credit was high and began to show negative effect on economy. The deflation grew up to 21 percent. So, high liquidity appeared in economy, hence, control of negative effect that may fall on economy to improve the growth of price rate and improvement of the position of loss of running account and control the capacity of flowing the loan of the commercial banks, was necessary and the NRB bonds. With some signs of improvement of economy, the investment ratio was revised accordingly, since Poush 2049 B.S. since the beginning of 2050 B.S., the economy showed improvement and the rate of deflation fell down to 8.8 percent. With this, the provision of investing in the government securities was removed.

With effective from, 2054, Chaitra 31<sup>st</sup>, commercial banks were required to maintain liquidity of 8 percent of the total current and saving deposits and 6 percent of the fixed deposits, in addition to 3 percent of total deposit in cash at vault. Since then the NRB reserve requirements have been put into force by NRB effective from 22 July 002 (2059/04/06).

#### **Prevailing directives as to cash reserve ratio requirement**

a)	Balance to NRB	1. 7 % of current & savings deposit liabilities. 2. 4.5% of fixed deposit liabilities
b)	Cash to vault	2% Total deposit liabilities.

The compliance of liquidity maintenance, the NRB applies following procedures:

- a. The CRR maintained by the banks will be examined on the basis of average weekly balance of deposit liabilities immediately preceding 4<sup>th</sup> week. A week shall comprise from each Sunday through Saturday.
- b. CRR will not be calculated for the week which is fully off.
- c. Weekly statement of deposit balances to be submitted to NRB inspection and supervision department within 15 days from the date of end of the week.
- d. Weekly average of Monday to Friday of total deposit, cash in vault and NRB balance is calculated by dividing by 5.

Penalty will be levied for failing to maintain the adequate liquidity as above under any of the following conditions.

- a. In the case of shortfall in maintenance of NRB balance but cash at vault is exactly 2%.
- b. In case of shortfall in NRB balance but cash at vault is more than 2% then up to 1% excess cash of total deposit is added in the balance with NRB then on such shortfall account (after adding up to 1% excess)
- c. In case of shortfall in cash in vault as well as shortfall in NRB balance then on total shortfall amount.

The applicable rate of penalty is as follows:

First time shortfall = Equivalent to bank rate/highest refinance rate.

Second time shortfall = Equivalent to 2 times of bank rate

Third time shortfall and all subsequent shortfalls= Equivalent to 3 times of bank rate.

### **2.1.6.6 Sensitivity to Market Risk**

The sensitivity to market risk component reflects the degree to which changes in interest rates, foreign exchanges rates, commodity prices or equity prices, can adversely affect a FI's earnings or economic capital (Baaral, 2005, p.44). When evaluating this component, consideration should be given to: management's ability to identify measure, monitor and control market risk; the institution's size; the nature and complexity of its activities; and the adequacy of its capital and earning in relation its level of market risk exposure. For many institutions, the primary source of market risk arises from non-trading positions and their sensitivity to changes in interest rates. In some larger institutions, foreign operations can be a significant source of

market risk. For some institution, trading activities are a major source of market risk. Market risk is rated based upon, but not limited to, an assessment of the following evaluation factors :( Koch and Macdonald, 2004, p.326)

1. The sensitivity of the FI's earnings or the economic value of its capital to adverse changes in interest rates, foreign exchanges rates, commodity prices or equity prices.
2. the ability of management to identify, measure, monitor and control exposure to market risk given the institution's size
3. Complexity and risk profile.
4. The nature and complexity of interest rate risk exposure arising from non-trading positions.
5. Where appropriate, the nature and complexity of market risk exposure arising from trading and foreign operations.

**Rating the Sensitivity to Market Risk Factor**

1. A rating of 1 indicates that market risk sensitivity is well controlled and that there is minimal potential that the earning performance or capital position will be adversely affected. Risk management practices are strong for the size, sophistication, and market risk accepted by the institution. The level of earnings and capital provide substantial support for the degree of market risk taken by the institution.
2. A rating 2 indicates that market risk sensitivity is adequately controlled and that there is only moderate potential that the earnings performance or capital position will be adversely affected. Risk management practices are satisfactory for the size, sophistication, and market risk accepted by the institution. The level of earnings and capital provide adequate support for the degree of market risk taken by the institution.
3. A rating 3 indicates that control of market risk sensitivity needs improvement or the there is significant potential that the earnings performance or capital position will be adversely affected. Risk management practices need to be improved given the size, sophistication, and level of market risk accepted by the institution. The level of market risk taken by the institution.
4. A rating 4 indicates that control of market risk sensitivity is unacceptable or that there is high potentials that the earnings performance or capital position will be adversely

affected. Risk management practices are deficient for the size, sophistication and level of market risk accepted by the institution. The level of earnings and capital provide inadequate support for the degree of market risk taken by the institution.

5. A rating of 5 indicates that control of market risk sensitivity is unacceptable or that the level of market risk by the institution is in imminent threat to its viability. Risk management practices are wholly inadequate for the size, sophistication and level of market risk accepted by the institution.

## Gap Analysis

Gap systems use an accrual approach to identify risk to net interest income. Typically, gap systems identify maturity and reprising mismatches between assets, liabilities and off-balance sheet instruments. Gap schedules segregate rate-sensitivity assets, rate-sensitive liabilities and off-balance sheet instruments according to their reprising characteristics. Then, the analysis summarizes the reprising mismatches for each defined time horizon. Additional calculations convert that mismatch into risk to net interest income. Gap analysis may identify periodic, cumulative or average mismatches. The most common gap ratio formula is:

$$\frac{\text{Risk Sensitivity Assets} - \text{Risk Sensitivity Liabilities}}{\text{Average Earning Assets}}$$

Occasionally, average assets or total assets may be used in place of average earnings assets. However; those denominators can underestimate interest rate risk. The gap ratio can and should be used to calculate the potential impact on interest income for a given rate change. This is done by multiplying the gap ratio by the assumed rate change. The result estimates the changes to the net interest margin. For example, a bank has a 15% one-year average gap. If rates decline 2%, then the net interest margin will decline by 30 basis points (15% x 02). This estimate assumes static balance sheet and an immediate, sustained interest rate shift. Gap analysis has several advantages. Specifically, it (Chanda, 2006, p. 45).

- ) Does not require sophisticated technology.
- ) May be relatively simple to develop and use.
- ) Can provide clear, easily interpreted results.

However, gap's weaknesses often overshadow its strengths, particularly for larger, more complex banks. For example, gap analysis:

- ) Generally captures only reprising risk.
- ) May not identify intra-period reprising risk.
- ) Does not measure EVE.
- ) Generally cannot analyze complex instruments.

Gap analysis may provide sufficient interest rate risk measurement for some banks. However, gap analysis may be ineffective for banks with complex structure, sophisticated activities, or significant exposures to embedded options.

## **2.2 Review of Related Studies and Papers**

The research studies and work papers carried out by different scholars within various geographical region including dissertations conducted by Nepalese scholars are reviewed in this section, which are related with financial performance analysis of commercial bank, Finance company and the other area of the study.

### **2.2.1 Review of Research and Work Papers**

Several academic studies examined whether and to what private supervisory information is useful in the supervisory monitoring of Banks and FIs failure-prediction models. It is very crucial for such analysis to identify variables that reliably predict future bank failure. The studies use variables that reflect asset quality, liquidity, capital adequacy and management quality. Most studies find that capital adequacy, earning ability and asset quality measured by the concentration of certain loan types, help to predict bank failure (Sinkey 1975, Pantalone and Plan 1987, Barr and Siems 1993, and Barker and Holdsworth 1993). Barker and Holdsworth (1993) reported that, on average, capital and income slowly deteriorate while past-due loans and charge offs increase as failure approaches. On the other hand, Heyliger and Holdren (1991) discover that asset quality, measured by the ratios of loan provisions and net charge offs to total loans, do not provide reliable indicators of bank failure. These studies adopted a number of methods, including multiple discriminant analysis, factor analysis, proportional hazard models, and legit analysis.

Jackson (1975) conducted a study on commercial bank regulation structure and performance. The study was carried out to identify the determinants of commercial banks

allocation efficiency. Both theoretical and empirical microeconomics analysis has applied to examine the competitive effects of banking influences. In this paper, the nature of banking was examined; showing that banks are essentially financial intermediaries that are engaged in greater competition than is commonly believed. Many theories of the firm as a bank are presented emphasizing efficiency-distorting force such as liquidity provisions. Almarin Philips's model of complex interaction between banking firms and other influences on observed performance was used to summarize banking theories. For the empirical purpose, data conversing 1644 banks over the period 1969-1971 were collected. Regression analysis was used to measure the relationship among variables. As a conclusion, the study showed that, the relatively desirable banking performance is associated with several traits including bank asset size, non-bank competition, low cash holdings, low labor cost, state non member basic status, multi bank company legislation, national bank status, low time deposits and low equity capitalization. Demand levels and temporal variations also significantly affect the banking performance. Further more, the study showed that the commercial banks regulation, structure and performance are interrelated with each other.

Sinkey (1975) notes bank examiners identify a "substandard" loan component of the net capital ratio as critical to identification of problem banks. In later research, Sinkey (1978) recognized the usefulness of loan default information in utilization of a ratio of provision for loan losses to operating expenses, although he did not find the "substandard" loan component to be significant.

Martins (1977) study set the standard for discrete-response models of bank failure prediction. Whereas most other research focused on a small sample of banks over two three years, Martin used all Fed-supervised institution during a seven year period in the 1970s, yielding over 33,000 observations. In what would become a standard approach, he confronted the data agnostically with 25 financial ratios and ran several different specifications in search of the best fit. He found that capital ratios, liquidity measures and profitability were most significant determinates of failure over his sample period. Although Martin did not employ direct measures of asset quality, his indirect measures provision expenses and loan concentration- also turned out to be significant.

West (1985) developed a model to predict bank failure, which differed from the majority of research by utilizing FDIC generated information, rather than data from the financial

statements. Some evidence resulted to support the contention that a loan quality factor (i.e. non-performing loans) had predictive value in this context for monitoring problem banks through its choice in a stepwise legit analysis.

Hirschhom (1987) used a multi factor market model to predict quarterly stock returns for the 15 largest U.S. banks between 1979 and 1987. He included both contemporaneous CAMEL ratings and lagged CAMEL values were not useful for predicting stock returns, Hirschhom found that contemporaneous CAMEL ratings were predicting stock returns. These results suggest that exam ratings contain useful information, but that most of this information is not private market participants have either independently inferred this information at the time of the exam, or this information has been leaked shortly after the exam was completed.

Shrestha (1990) conducted a research work on portfolio behavior for commercial banks in Nepal. She has analyzed the debt to equity ratios of commercial banks in aggregate and agriculture development bank from 1971 to 1990. She has found that the debt to equity ratio of minimum 8.3% in 1971 and the maximum of 21.44% in 1972 and maximum of 52.74% in 1974. On the basis of these findings, she concluded that the Nepalese commercial banks are highly leveraged and highly risky. Further, she argued that the capital adequacy ratio explains the strength of the capital base of commercial banks. Higher the capital adequacy ratio, higher is its internal sources. Lower the value of capital adequacy ratio with regard to the standard value shows that the bank's ability to attract deposit from the surplus units and inter bank funds also be limited.

Tam and Kiang (1992) utilized stepwise legit analysis. The researchers examined a small sample of taxes banks, where result indicated two measures of loan default risk were significant in their prediction of bank failure, provision for loan losses to average loans and net charge-offs to average loans exhibited no predictive value.

Barker and Holdsworth (1993), in respect to predicting bank failure, find evidence that CAMEL ratings are<sup>3</sup> useful, even after controlling for a wide range of publicly available information about the condition and performance of banks.

Berger and Davies (1994) evaluate the impact of CAMEL rating changes on the parent holding company's stock price. They separate stock price change into two components: a 'private information' effect (which identifies the public's awareness of new information discovered by examiners) and a 'regulatory discipline' effect (which values the regulators'

presumed ability to force a bank to change its behavior). Berger and Davies' empirical results provide only weak evidence of a regulatory discipline effect, but they find a strong private information effect. However, the information effect applies only to CAMEL downgrades, which tend to precede stock price declines. Consistent find no movement in stock prices following a CAMEL upgrade.

Cole and Gunther (1998) examine a similar question and find although CAMEL ratings contain useful information, it decays quickly. For the period between 1988 and 1992, they found that a statistical model using publicly available financial data is better indicator of bank failure than CAMEL ratings that are more than two quarters old.

Morgan (1998) finds that rating agencies disagree more about banks about other types of firms. As a result, supervisors with direct access to private bank information could generate additional information useful to the financial markets, at least by certifying that a bank's financial condition is accurately reported.

The direct public beneficiaries of private supervisory information, such as that contained in CAMELS ratings, would be depositors and holders of banks' securities. Small depositors are protected from possible bank default by of FDIC insurance. This probably explains the finding by Gilbert and Vaughn (1998) that the public announcement of supervisory enforcement actions, such as prohibitions on paying dividends, did not cause deposit runoffs or dramatic increase in the rates paid on deposits at the affected banks. However, uninsured depositors could be expected to respond more strongly to such information. Jordan, et al., (1999) find that uninsured deposits at banks that are subject of publicly-announced enforcement actions, such as cease and desist orders, decline during the quarter the announcement.

As of year end 1998, bank holding companies (BHCs) had roughly \$120 billion in outstanding subordinated debt. De Young, et al., (1998) examine whether private supervisory information would be useful in pricing the subordinated debt of large BHCs. The authors use an econometric technique that estimates the private information component of the CAMEL ratings for the BHCs' lead banks and regress it onto subordinated bond prices. They conclude that this aspect of CAMEL ratings adds significant explanatory power to the regression after controlling for publicly available financial information and that it appears to be incorporated into bond prices about six months after an exam. Furthermore, they find that supervisors are more likely to uncover unfavorable private information while de-emphasizing negative information. These



results indicate that supervisors can generate useful information about banks, even if those banks already are monitored by private investors and rating agencies.

Focusing specifically on CAMEL ratings, Berger and Davies (1998) use event study methodology to examine the behavior of BHC stock prices in the eight-week period following an exam of its lead bank. They conclude that CAMEL downgrades reveal unfavorable private information about bank conditions to the stock market. This information may reach the public in several ways, such as through bank financial statements made after a downgrade. These results suggest that bank management may reveal favorable private information in advance, while supervisors in effect force the release of unfavorable information.

Berger, Davies and Flannery (1998) extend this analysis by examining whether the information about BHC conditions gathered by supervisors is different from that used by the financial markets. They find that assessments by supervisors and rating agencies are complementary but different from those by stock market. The authors attribute this differences to the fact that supervisors and rating agencies, as representatives of debt holders, are more interested in default probabilities than the stock market, which focuses on future revenues and profitability. This rationale also could explain the authors' finding that supervisory assessments are much less accurate than market assessments of banks' performances.

On-site bank exams seem to generate additional useful information beyond what is publicly available. However, according to Flannery (1998), the limited available evidence does not support the view that supervisory assessments of bank conditions are uniformly better and timelier than market assessments.

The market for bank equity, which is about eight times larger than that for bank subordinated debt, was valued at more than \$910 billion at year-end 1998. Thus, the academic literature on the extent to which private supervisory information affects stock prices is more extensive. For example, Jordan, et al., (1999) find that the stock market views the announcement of formal enforcement actions as informative. That is, such announcements are associated with large negative stock returns for the affected banks. This result holds especially for banks that had not previously manifested serious problems.

Hirtle and Lopez (1999) examine the usefulness of past CAMEL ratings in assessing banks' current conditions. They find that, conditional on current public information, the private supervisory information contained in past CAMEL ratings provides further insight in to bank

current conditions, as summarized by current CAMEL ratings. The authors find that, over the period from 1989 to 1995, the private supervisory information gathered during the last on-site exam remains useful with respect to the current condition of a bank for up to 6 to 12 quarters (or 1.5 to 3 years). The overall conclusion drawn from academic is that private supervisory information, as summarized by CAMELS ratings, is clearly useful in the supervisory monitoring of bank conditions.

Kolari et al., (2000) developed models and predicted bank failure, where the models initially included three measures of loan default disclosure along with 25 other financial measures. The loan default measures included allowances for loan losses to total assets, net loan charge-offs to total assets and provision for loan losses to total assets. In the final analysis, the allowances for loan losses to total assets were significant in row of the six predictions. As with many other studies, there was a lack of theory for the choice of variables, as stepwise legit was utilized for the decision of inclusion or elimination.

Dziobek, Hobbs and Marston (2000) analyze the determinants of bank liquidity defined as the degree to which a FI is able to meet its obligations under normal business conditions. Volatility in the depositors (and creditor) base depends on the type of depositors, insurance coverage and maturity; banks that rely on a narrow or highly volatile funding base are more prone to liquidity squeezes. Household deposits are typically more stable than, for instance, the deposits of institutional investors or corporate entities. Deposit concentration (i.e. fewer, larger-size deposits) can also be indicative of volatility. Deposit insurance increase the stability of the deposits it covers, with the important caveat front, foreign financing for instance through commercial credit lines and deposits of nonresidents (either in foreign or domestic currency) can become highly volatile in situations of distress and make the financial system vulnerable to external shocks or adverse developments in the domestic economy. As regards instrument maturity, the longer the time before the liability matures (in terms of remaining maturity), the more stable is the funding ; however, in countries where banks are required to meet early withdrawal requests with only minor penalties, maturity may be less relevant to determining funding stability.

Sahajwala and Van den Bergh (2000) based their work paper of Basel committee on banking supervision on a study of a number of new bank monitoring systems currently in use or under development in various G10 countries. Such systems are collectively termed “supervisory

risk assessment and early warning systems". The objective of the paper was to provide an overview of the different approaches taken by bank supervisors and to make a preliminary general assessment of the methods that are being used or developed. The study reveals that supervisory authorities are now clearly moving towards putting in place more formal, structured and risk focused procedures for ongoing banking supervision. Individual approaches and system have been developed and adopted, typically in the 1990s, with a greater focus on risk profiles and risk management capabilities of individual banking institution and on the generation of timely warning of potential changes to a bank's financial position. These new and modified systems have contributed positively to the supervisory process, and supervisors are working towards refining the systems further in order to improve the systems' accuracy and predictive power.

Gytan and Johnson (2001) have presented their work paper on a review of alternative methodologies for early detection of banking distress. The various methodologies proposed by different researchers, in the paper are aimed to the early identification of financial distress for countries without an important recent history of bank failure, but facing an unstable international environment. They evaluate several indicators, the signal extraction approach, limited dependent estimation and finally duration models. In the Early Warning System (EWS) of systematic banking crises section they reviewed the literature aimed to predict crises of the complete banking system of a country. They also include some methodologies approaches that have been used as early warning systems for currency crises, but have a potential application methods requires a sample in which the events have appeared repeatedly. Since there has not been so may repeated episodes in any given country, the estimation must rely on a sample of different countries that have suffered banking problems. According to them, the literature on indicators and EWS of systems crises can be classified by their methodological approach: 1) Qualitative indicators, 2) Signal Extraction, 3) Limited Dependent Regression, 4) Other models.

Derviz and Podpiera (2004) based their assessment of commercial banking performance on bank ratings and studied with respect to detecting situations with the potential for adverse development towards failure and owing to the costly nature of frequent supervisory examinations. In this paper they studied models of rating downgrades and consider a specific set of indicators that are suitable as determinants of a bank's rating. The conclusions about the predictors obtained from the analysis of downgrades are applicable in relatively stable banking

sector situations. Banks experiencing minor liquidity trouble might raise their interest rates on deposits, but a regulator would have a hard time distinguishing which bank has increased its deposit rate because of liquidity problems and which has done so owing to an increase in its cost of funds caused by some other factor. Therefore, in their approach the cost of funds one of the plausible downgrade indicators was used in the form of the banks “credit spread”. In addition to credit spread, they tested the inclusion of the value at risk (VaR) indicator in the form of total asset VaR, as they believed that this type of indicator might play an important role in determining the level of the rating due to its easy computability and data availability to the public. They focused on the capital, assets, management, earning, liquidity, market risk based composite (CAMELS) rating and the Standard and Poors (S&P) ratings. The choice of their sample was determined by the fact that cross section data is probably less appropriate given the specific character of the relatively small banking market in the Czech Republic. The three chosen banks, i.e. Ceska Sporitelna (CS), Komerčni Banka (KB) and Ceskoslovenska Obchodni Banka (CSOB), cover a dominant portion of the market, the rest being occupied by small narrowly specialized banks or foreign bank branches. Therefore, they used panel data with three banks and their financial indicators to analyze the change in the CAMELS and S&P ratings. They found that the reliable predictors of a bank’s S&P rating are credit spread, capital adequacy, and the total loans to total assets ratio. In the case of the CAMELS rating does not yield itself easily to predictions within any horizon with the studies technique. On the contrary, the S&P rating can be relatively precisely predicted one month in advance.

Baral has conducted a research and published his paper in the journal of Nepalese business studies. On health check-up of Commercial Bank in the framework off CAMEL, a case study of joint venture Banks in Nepal. The paper examined the financial health of joint venture Banks in the CAMEL framework for a period ranging from fiscal year 2001 to 2004. Three joint venture Commercial Banks of Nepal were randomly selected for the study. The study was based on historical data disclosed by annual reports of Commercial Banks. It has covered four fiscal years’ data for the purpose of study. The study was based totally on the CAMEL framework. (Baral, 2005).

### **2.2.2 Review of Dissertations**

Prior to this, several thesis works have been conducted by various researchers regarding different aspects of commercial banks like financial performance, capital structure, investment policy, interest rate structure and resources mobilization. The excerpts from the findings of some of these research works are presented which are relevant for this study:

Pradhan (1980) conducted a study on investment policy of Nepal Bank Ltd. The objective to that study was to evaluate the lending policy and to find out the ways to encourage the bank lending. This study has covered only five fiscal years BS 2028/29 through BS 2033/34. he used Karl Pearson's coefficient of correlation, ratio analysis and percentage analysis. He concluded with the positive relationship between deposits and loans and advances. But the same was not in a proportion manner, greater increase in deposits led to little increase in the loans and advances. Increase in the interest rate was the main factor for the decrease in loan demand. The bank had investment only 3 percent of its total investment in the priority sector, which was lower than the percentage (7 percent) imposed by NRB.

Shrestha (1990) conducted a research work on profile behavior for commercial banks in Nepal. She has analyzed the debt to equity ratios of commercial banks in aggregate and agriculture development bank from 1971 to 1990. The researcher has found that the debt to equity ratio in commercial banks minimum of 8.3% in 1971 and the maximum of 1583.3% in 1974. Similarly, the range of debt to equity ratios of ADB/N is minimum of 21.44% in 1972 and maximum of 652.74% in 1990. On the basis of the finding, the researcher concluded that the Nepalese commercial banks are highly leveraged and highly risky. Further, the researcher argued that the capital adequacy ratio explains the strength of the capital base of commercial banks. Higher the capital adequacy ratio, higher is its internal sources, lower value of capital adequacy ratio with regard to the standard value shows that the bank's ability to attract deposit from the surplus units and inter bank funds also be limited.

K.C. (1991) has done a study on dividend policy of joint venture banks in Nepal. The objective of this study was to provide conceptual framework of dividend models and analyze the financial variables affecting the stock value and interpret the implication of paying dividend in dividend valuation models. The study has covered the time span of FY 1984/85 to 1989/90. in this study, various financial ratios have been analyzed with the help of two types of analytical tools-investment and statistical tools. Investment tools consist of dividend payout ratio, earning per share, return on paid-up capital, retention ratio and dividend valuation model. In addition to

the coefficient of correlation, the researcher has used financial tools in this study. The researcher concluded that earning per share of all three joint ventures banks (Nepal Arab Bank Ltd, Nepal Indosuez Bank Ltd and Nepal Grindlays Bank Ltd.) were satisfactory and actual capitalization rate was higher than the normal capitalization rate.

Bohara (1992) has done a study on financial performance of Nepal Arab Bank Ltd. (NABIL) and Nepal Indosuez Bank Ltd. (LIBL). The basic objectives of this study were to highlight on the functions and policies of joint ventures banks and to evaluate the comparative financial performance of NABIL. The study has covered the five fiscal years 1986/87 to 1990/91. In this study financial tools along with statistical tools have been used. Different ratios-liquidity, activity, coverage, leverage, profitability and other indicators like earning per share, dividend per share, market value to book value ratio, have been used to evaluate the performance of NABIL and NIBL. In statistical tool the least square method has been employed. The researcher has, on the basis of different financial indicators, and concluded that performance of NABIL is better than that of NIBL. The researcher further concluded that bank performances could not be judged solely in terms of profit as it may have earned profit by maintaining adequate liquidity and safety position. The researcher has recommended to NIBL to extend their banking facilities even in the rural areas by opening up increasing equality base.

Adhikari (1993) conducted a study on evaluation of the financial performance of Nepal Bank Ltd. The study has been limited of FY 2038/ 39 B.S through FY 2046/47 B.S. The main indicators of financial performance used were financial ratios current loan to deposit, return on capital, return in net worth, return on total assets, earning per share, dividend per share, pay out and net worth per share vs. market price per share. The researcher concluded that the bank had not managed investment portfolio efficiently. Operational efficiency was not satisfactory. During the study period, except liquidity position not all other financial indicators were satisfactory.

Joshi (1993) conducted a study on commercial banks of Nepal with reference to financial analysis of Rastriya Banijya Bank. The objective of this study was to provide conceptual framework of commercial banks, and to analyze and quantitative performance basis. The study was based on the financial data of FY 2042B.S through 2046B.S. Researcher has used various financial ratios like current. Liquidity, funded debt to total capitalization, and funded debt to equality in this study. The researcher had drawn the conclusion that performance of RBB was not satisfactory during the study period. Further, the researcher concluded that bank had not been

managed in true professional approach but had managed in bureaucratic approach to sustain with political environment rather than commercial environment.

Shakya (1995) performs a study on financial analysis of joint venture banks in Nepal. The objective of this study was to carry out the comparative financial performance evaluation of Nepal Arab Bank Ltd. (NABIL) and Nepal Grindlays Bank Ltd (NGBL). This study has covered the time span of FY 1988/89 through 1993/94. In this study, he has financial ratios viz. liquidity, leveraged, activity, profitability, growth and valuation and statistical tools viz. Karl Person's correlation coefficient, student t-test, simple average and index. The researcher has found that in spite of the increase in loans and deposit of both banks, their performance measured in terms of deposit utilization rate is not satisfactory. Further, the study showed that financial performance of NABIL is better than of NGBL.

Gurung (1995) conducted a research on "A financial study of joint venture banks in Nepal". The objective of this study was to examine the financial strengths and weaknesses of Nepal Grindlays bank Ltd. (NGBL) and Nepal Indosuez Bank Ltd. (NIBL). The study has covered the period of seven fiscal years i.e. 1986/87 through 1992/93. in this study, he has used financial ratios viz. current, activity, profitability, capital structure and statistical tool viz. Karl Person's coefficient of correlation. The researcher has, based on different financial indicators; found that performance of NGBL is better than that of NIBL.

Thapa (2001) has conducted her study "A comparative study on investment policy of Nepal Bangladesh bank Ltd. And other joint ventures banks". The researcher's main objective of study was to evaluate the liquidity, assets management efficiency, profitability and risk position on NBBL in comparison NABIL and NGBL and to examine the fund mobilization and investment policy NBBL through off-balance sheet and on-balance sheet activities in comparison to other two banks. Through research, the researcher found that the liquidity position of NBBL is comparatively not better than of NABIL and NGBL. The liquidity ratios are moderately fluctuating which means the bank has not properly formulated stable policy. As per the study, NBBL is not better position regarding its on-balance sheet as well as off-balance sheet activities in compare to NABIL and NGBL and it does not seem to follow and definite policy regarding the management of its assets. The researcher at the last suggested following a specific policy in investment and she further recommended to maintain the optimum level of relationship among

deposit and loan and advances, outside assets and net profit and to maintain the adequate recovery rate.

Bhandari (2006) has conducted a study on the financial performance of Himalayan Bank Limited in the framework of CAMEL. The basic objective of this study was to analyze the financial performance of Himalayan Bank Limited through CAMEL. The study has covered the time period of 6 years from fiscal year 1999 to 2004. The researcher has used different financial tools and other statistical tools in the study. The analysis revealed adequate capital of the bank. The non-performing loans through in decreasing trend are still a matter of concern. The bank is still with better ROE however, it is in decreasing trend of net interest margin shows management stock monitoring over the bank's earning assets. The liquid funds to total deposit ratio to above the industrial average ratio. NRB balance and cash in vault to total deposit ratios are below the industrial average ratio during the study period.

Chanda (2006) has conducted a study on financial performance analysis of Nabil Bank Limited in the framework of CAMELS with the objective to analyze the financial condition of Nabil Bank Limited. It has covered five years data starting from fiscal year 2000/01 to 2004/05. The analysis discovered that the Bank is running with adequate capital and the capital fund of Bank is sound and sufficient to meet the banking operation as per NRB standard. The bank has placed efficient credit management and recovery efforts of good quality loans will increase in future. The management decision related to operation and investments have assisted in future. The management decisions related to operation and investments have assisted in controlling control and recovery the interest spared and cost effective sources of fund. The liquid funds to total deposit ratio is above the industrial average ratio. NRB balance and cash in vault to total deposit ratios are below the industrial average ratio during the study period.

## **2.3 Research Gap**

Various studied have been conducted in the past on financial analysis commercial banks in the US and other regions were found done. The research paper done in the context of Nepal mainly emphasized a liquidity, profit ability and leverage of the commercial banks. These studies lack micro-level analysis and found applying traditional analysis of financial performance. In the context of Nepalese banking environment, there are few academic researchers found conducted in the frame work of CAMEL. The researcher are conducted their research only on commercial



bank. There are a few research reports of finance companies. However, the financial performance analysis of Pokhara Finance Limited has not been done yet. A few researchers have conducted their research on other topic. But, no one has conducted research on financial performance. Thus, there is necessary to conduct research on financial performance. So, this research is conducted to know actual financial performance of Pokhara Finance Ltd in the frame work of CAMEL. Therefore, the study of financial performance of financing companies will add new dimension toward finance function of financing companies.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

This chapter provides the overall framework or plan for the collection, analysis and presentation of data required to fulfill the objective of the study. The main objective of the study is to analyze and evaluate financial performance of PFL. To meet the objective, following methodology is applied in the study, which is described as below.

#### **3.1 Research Design**

By research design we mean an overall framework or plan for the activities to be undertaken during the course of a research study. The plan is the overall scheme or program of the research. (Wolff and panta, 1975,p.92) Therefore, to achieve the desired end of this study descriptive and analytical research design is applied. Descriptive research design seeks to find out the fact by help of sufficient data and information.

#### **3.2 justifications for the Selection of the Unit**

Pokhara Finance Limited is one of the leading finance company. Due to the special role play by the company, question arise that what is its actual financial performance. Thus to fulfill the gap , this study is attempt to solve the problem by taking Pokhara Finance Limited as study unit through convenience sampling techniques.

#### **3.3 Population and Sample**

For the purpose of this study finance companies are taken as population. Till May, 2008 there are all together 79 finance companies established in Nepal. But being a case study of a single unit, Pokhara Finance Limited is selected as a sample for this study. For this sampling purpose convenience sampling method is used.

### 3.4 Nature and Source of Data

The study is based on secondary data. For the purpose of the study, the annual reports of the PFL are used as the major sources of data. Besides the annual reports of PFL required data and information is collected from the following sources.

- J NRB reports and bulletins and its website.
- J Various publications dealing in the subject matters of study.
- J Various articles published in journals, etc.
- J Various research report and Dissertations.
- J Nepal Stock Exchange report.

Formal and informal talks with the senior staff of the company were also helpful to obtain the information of the related problem.

### 3.5 Data Collection Procedures

As stated earlier, the study is mainly based on secondary data. The annual reports and other information of PFL have been obtained from PFL. NRB directives, banking and financial statistics and other publications are collected from the web site of NRB. Some supplementary data and information, literature review are collected from the Western Regional Library, Pokhara, Central Library, T.U. NRB publication, different journals magazines and other published and unpublished reports documented by the concern authorities.

### 3.6 Data Processing

First of all, necessary data are collected from the published documents and then audited financial statements recorded in master sheet manually. Then, data are entered in to table to work out CAMEL financial ratio and prepare the necessary figures. Finally, different financial tools under CAMEL are worked out with the help of computer programmers.

### 3.7 Method of Data Analysis

Various financial and statistical tools are used in this study to get the meaningful result and to meet the research objective. Financial ratios are major tools for the analysis. In addition to the financial tools other simple statistical tools are used in research.

### 3.7.1 Financial Tools

This study is based on following financial tools and techniques.

The tools are based in the framework of CAMEL.

**Capital Adequacy Ratio:** Capital adequacy ratio is the numerical relationship between total fund and risk adjusted assets. It measures the adequacy of capital and financial soundness of finance company. Capital adequacy ratio is used to measure of capital in the finance company. It is worked by using the following model.

$$CAR = \frac{\text{Total Capital Fund}}{\text{Total Risk Adjusted Assets}} \times 100$$

Where,

CAR= Capital Adequacy Ratio

Total capital fund= Core capital + Supplementary capital

Total Risk Adjusted Assets= On-balance sheet risk adjusted assets + off  
balance sheet risk adjusted assets

**Core Capital Adequacy Ratio:** Core capital adequacy ratio shows the relationship between the total core capital or internal sources and total risk adjusted assets. It is used to measure the adequacy of core capital and financial soundness from very close angle. It is calculated by using following model.

$$CCAR = \frac{\text{Core Capital}}{\text{Total Risk Adjusted Assets}} \times 100$$

Where,

CCAR=Core Capital Adequacy Ratio

Core Capital = paid-up capital + share premium + non-redeemable  
preference share + general reserve + cumulative profit –goodwill if  
any

**Supplementary Capital Adequacy Ratio:** Supplementary capital adequacy ratio is the expression of numerical relationship between supplementary capital and total risk adjusted assets. It measures the proportion of supplementary capital in total risk adjusted assets. Further more, it shows the absolute contribution of supplementary capital in capital adequacy. The ratio

is used to analyze the supplementary capital adequacy and determined by using the following model

$$\text{SCAR} = \frac{\text{Supplementary Capital}}{\text{Risk Weighted Assets}} \times 100$$

Where,

SCAR= Supplementary Capital Adequacy Ratio

Supplementary Capital= Loan loss provision + exchange equalization reserve  
 + assets revaluation reserve + hybrid capital instrument +  
 unsecured subordinate term debt + interest rate fluctuation fund +  
 other free reserves

**Non-performing Loan Ratio:** The non-performing loan ratio indicates the relationship between non-performing loan and total loan. It measures the proportion of non-performing loan in total loan and advances. The ratio is used to analyze the asset quality and determined by using the given model.

$$\text{Non-performing Loan Ratio} = \frac{\text{Non Performing Assets}}{\text{Total Loan and Advance}} \times 100$$

Where,

Non-performing loan= loan not recovered with in the given the time frame either in the form of interest servicing or principal repayment.

**Loan Loss Ratio:** The loan loss ratio is the expression of numerical relationship between loan loss provision and loan and advances. It is used to appraise quality of asset. It measures the proportion of loan loss provision in total and advances. This ratio shows the possibility of loan default. Higher ratio implies higher portion of non-performing loan portfolio. For the purpose of study following is used to determine the loan loss ratio.

$$\text{Loan Loss Ratio} = \frac{\text{Loan Loss Provision}}{\text{Total Loan and Advances}} \times 100$$

**Total Expenses to Total Incomes Ratio:** The total expenses to total income ratio is the expression of numerical relationship between total expenses and total incomes of the company. It measures the proportion of total expenses in total revenues. A high or increasing ratio of expenses to total revenues can indicate that financial institutions may not be operating efficiently. This can be, but is not necessarily due to management deficiencies. In any case, it is likely to negatively affect profitability (IMF, 2000). Following is the expression of total expenses to total revenues ratio.

$$\text{Total Expenses to Total Income Ratio} = \frac{\text{Total expenses}}{\text{Total Income}} | 100$$

**Earning Per Employee:** Earning per employee is the numerical relationship between net profits after tax to total number of employee. Low or decreasing earnings per employee can reflect inefficiencies as a result of overstaffing, with similar repercussions in terms of profitability (IMF, 2000). It is calculated by using the following model.

$$\text{Earning Per Employee} = \frac{\text{Net Profit After Tax}}{\text{Number of Employee}} | 100$$

**Return on Equity (ROE):** the return on equity indicates the relationship between net profit after tax to total equity capita. It measures of the rate of return following to the company's shareholders. Higher is the return on equity, higher the investment which the shareholders will undertake. For the purpose of the study following model is used to determine the return on equity ratio.

$$\text{Return on Equity} = \frac{\text{Net Profit after Tax}}{\text{Total Equity Capital}} | 100$$

**Return on Assets (ROA):** Return on assets is the numerical relationship between net incomes after taxes to total assets of a company. It is primarily an indicator of managerial efficiency; it indicates how capably the management of the company has been converting the institution's assets into net earning (Rose, 1999). It is calculated by using the following model.

$$\text{Return on Assets} = \frac{\text{Net Income After Tax}}{\text{Total Assets}} \times 100$$

**Net Interest Margin:** Net interest margin is the expression of numerical relationship between net interest income and total earning assets of a company. It measures how large a spread between interest revenues and interest costs management has been able to achieve by close control over the company's earning assets and the pursuit of the cheapest sources of funding (Rose, 1999). For the purpose of the study following model is used to determine net interest margin.

$$\text{Net Interest Margin} = \frac{\text{Net Interest Income}}{\text{Earning Assets}} \times 100$$

Where,

Net interest income = interest income – interest expenses

Earning assets = loan & advances + investment on securities

**Earning Per Share (EPS):** earning per share provides a direct measure of the returns flowing to the company's owners-its stockholders- measured relative to the members of shares to the public(Rose, 1999). It gives the strength of the share in the market. Following is the expression of earning per share.

$$\text{Earning Per Share} = \frac{\text{Net Income to Shareholder}}{\text{Number of Share}}$$

**Total Liquid Fund to Total Deposits Ratio:** A total liquid fund to total deposits is the expression of numerical relationship between total liquid funds and total deposits of the company. It measures the proportion of total liquid funds in total deposits. Further more, it shows the overall short-term liquidity position. The higher ratio implies the better liquidity position and lower ratio shows the inefficient liquidity position of the company. It is calculated by using the following model.

$$\text{Total Liquid Fund to Total Deposits Ratio} = \frac{\text{Total Liquid Fund}}{\text{Total Deposit}} \times 100$$

Where,

Total Liquid Fund = cash in hand + foreign currency in hand +  
Balance with NRB + balance with domestic bank + balance  
Held abroad + calls deposits

**NRB Balance to Total Deposit Ratio:** NRB balance to total deposits ratio is the expression of numerical relationship between NRB balance and total deposits of a bank. It measures the proportion of NRB balance in total deposits. It shows whether bank is holding the balance as required by NRB. For the purpose of this study following model is used to determine the NRB balance to total deposits.

$$\text{NRB Balance to Total Deposit Ratio} = \frac{\text{NRB Balance}}{\text{Total Deposit}} \times 100$$

**Cash in Vault to Total deposit Ratio:** cash in vault to total deposits ratio indicates the relationship between cash in vault to total deposits. It shows the percentage of total deposit maintained as vault. It is worked out by using the following model.

$$\text{Vault to Total Deposits Ratio} = \frac{\text{Cash in Vault}}{\text{Total Deposit}} \times 100$$

Where,

Cash in vault = cash in hand + foreign currency in hand

## Interest Rate Sensitivity

Interest rate sensitivity is estimated by GAP analysis. If  $\zeta R_{id}$  is the average interest rate change affecting assets and liabilities that can be reprised within  $i_{th}$  maturity bucket, the effect on the net interest income (NII) in the  $i_{th}$  maturity bucket is calculated by (Saunders and Cornett, 2004).

$$\zeta NII_i = \left[ \begin{array}{cc} {}^{iXlthMaturityBucket} & {}^{iXlthMaturityBucket} \\ RSA_i & Z \\ {}_{iXlDay} & {}_{iXlDay} \\ RSL_i & \end{array} \right] \varepsilon \zeta R_i$$



$$= \text{GAP}_i \varepsilon \zeta R_i$$

Where,

$\zeta \text{ NII}_i$  = Change in interest income in the  $i_{\text{th}}$  maturity bucket.

$\text{GAP}_i$  = Rupee size of gap between book value of rate sensitivity assets (RSA) and rate sensitivity liabilities (RSL) in maturity bucket  $i$ .

Similarly cumulative GAP (CGAP) of interest is the one year reprising gap estimated as:

$$\zeta \text{ NII}_i = \text{CGAP} \times \zeta R_i$$

CGAP =

$$\begin{matrix} iX90 \text{ Days} & iX90 \text{ Days} & iX180 \text{ Days} & iX180 \text{ Days} & iX270 \text{ Days} & iX270 \text{ Days} & iX360 \text{ Days} & iX360 \text{ Days} \\ \text{RSA}_i \text{ Z} & \text{RSL}_i \text{ } \Gamma & \text{RSA}_i \text{ Z} & \text{RSL}_i \text{ } \Gamma & \text{RSA}_i \text{ Z} & \text{RSL}_i \text{ } \Gamma & \text{RSA}_i \text{ Z} & \text{RSL}_i \\ iX1 \text{ Day} & iX1 \text{ Day} & iX91 \text{ Days} & iX91 \text{ Days} & iX181 \text{ Days} & iX181 \text{ Days} & iX271 \text{ Days} & iX271 \text{ Days} \end{matrix}$$

**Interest Rate Sensitivity:** Interest Rate Sensitivity can be computed by expressing cumulative GAP as a percentage of total risk sensitivity assets (A) as:

$$\text{Interest Rate Sensitivity} = \frac{\text{CGAP}}{A} \times 100$$

### 3.7.2 Statistical Tools

**Average:** A simple arithmetic average is used to summarize the data as a representation of mean data. A simple arithmetic average is a value obtained by dividing the sum of the values by their numbers (Kothari, 1989). Thus, the average is expressed as:

$$(\bar{X}) = \frac{X}{N}$$

Where,

$\bar{X}$  = Mean of the values

N = Number of pairs of observation

During the analysis of data, mean is calculated by using the statistical formulas average on excel data sheet on computer.

**Standard Deviation:** Standard deviation is the absolute measure of dispersion of the values and shows the deviation or dispersion in absolute term (Kothari, 1989). It is said that higher the value of standard deviation the higher the variability and vice versa. Karl Pearson introduced the concept of standard deviation in 1895. Here, the standard deviation is used to find out the deviation in absolute term. Standard deviation is determined in following way.

$$\text{S.D. } \sigma = \sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2}$$

Here,

n= no. of observation

x=individual value

During the analysis of data, standard deviation is calculated by using the statistical formula on SPSS program on computer.

**Coefficient of Variation:** Coefficient of variation is the relative measure of dispersion based on the standard deviation (Kothari, 1989). It is most commonly used to measure the variation of data and more useful for the comparative study of variability in two or more series or graph or distribution. Symbolically, the coefficient of variation is calculated as:

$$\text{CV} = \frac{\sigma}{\bar{X}}$$

Here,

$\sigma$  = standard deviation

$\bar{X}$  = mean

CV= Coefficient of variation

**Least Square Trend Analysis:** Least square trend has been used to find out the trend of ratio (Kothari, 1989). The general equation used for trend is given below:

$$Y = a + bx$$

Where,

Y=Dependent variable

x= Coded time in year (independent variable)

a= Y-intercept

b= Slope of the trend line

In the above model,

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

$$a = \frac{\sum Y - b \cdot \sum X}{N}$$

## **CHAPTER 4**

### **DATA ANALYSIS AND PRESENTATION**

This chapter deals with the presentation of data collected from the different sources. The purpose of this chapter is to study evaluate and analyze the financial performance of Pokhara Finance Limited in the frame work of CAMEL.

#### **4.1 Data Presentation and Analysis**

The data collected from different sources been refined and documented in Excel tables, which are further processed to analyze and arrive at the findings on the financial condition of Pokhara Finance Limited in terms of CAMEL framework.

##### **4.1.1 Capital Adequacy**

Capital adequacy is a measurement of a financial institution to determine if solvency can be maintained due to risks that have been incurred as a course of business. Capital adequacy component analysis of PFL is made based on the regulations and standard ascertain by NRB as to maintaining minimum risk based core and total capital standard and maximum risk based supplementary capital standard. The minimum risk based capital standard which includes a definition for risk based capital, a system for calculating Risk Weighted Assets (RWA) by assigning on and off balance sheet items to broad risk categories. Capital Adequacy Ratio (CAR) takes in to account the most important financial risks-foreign exchange, credit and interest rate risks, by assigning risk weightings to the institution's assets. A finance company must be able to generate capital internally, through earnings retention, as a test of capital strength.

##### **4.1.1.1 Core Capital Adequacy Ratios**

Core (Tier 1) capital means the primary capital of a finance company. Core capital includes the paid up equity capital, share premium, dividend equalization fund, capital adjustment reserve, non-redeemable preference share, general reserve, accumulated profit and loss amount and good will deductible if any (Baral, 2005, p.26). In this way it is the amount of shareholders fund. It gives an assurance to the outsiders for smooth operation of a finance company even in the time of economic crisis. Core capital adequacy ratio is also known as core

capital to total risk adjusted assets ratio, which measures the adequacy of internal sources or shareholder's funds to support the financing activities.(Baral, 2005, p.43).

It reflects the financial strength and soundness of finance company. Higher values of the ratio above the NRB standard show the adequacy of internal sources and higher security to creditors and depositors. The lower value of core capital adequacy ratio with regard to the NRB standard indicates the lower is its internal sources. Table 4.1 presents the observed value of core capital adequacy ratio of PFL, during the period of past five FYs.

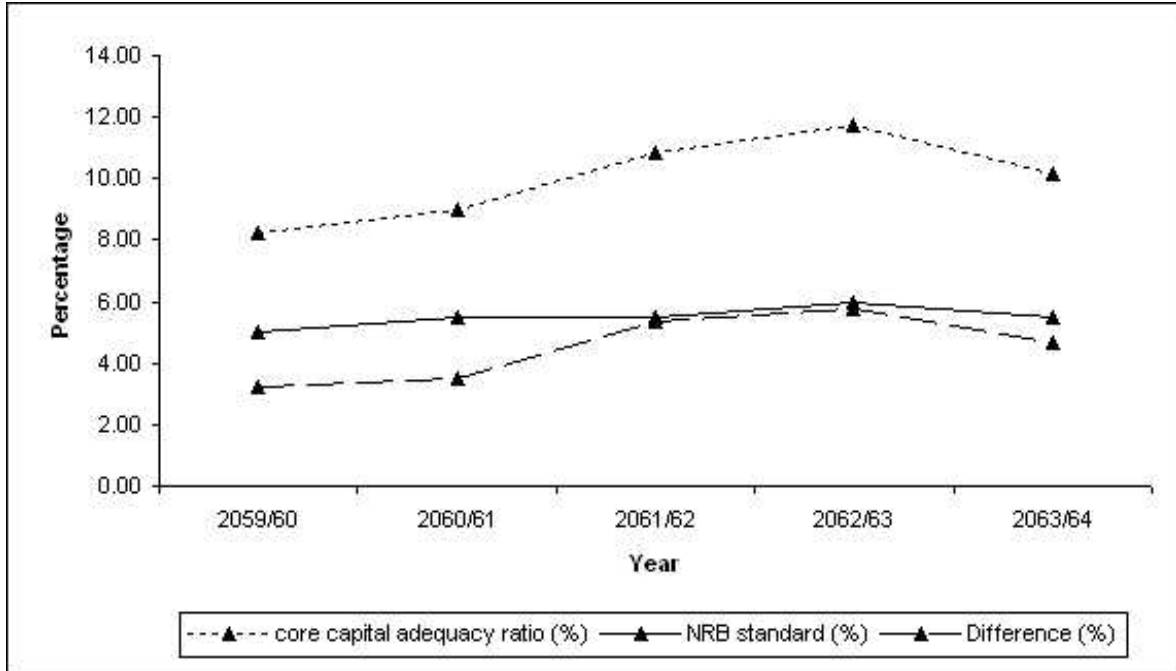
**Table 4.1: Core Capital Adequacy Ratio**

Fiscal Year	Amount in thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Core Capital (Rs)	46473.84	52931.43	73782.84	87714.26	109816
Total risk weighted assets (Rs)	564646.92	588592.1	679222.63	746602.5	1081858.42
Core capital adequacy ratio (%)	8.23	8.99	10.86	11.75	10.15
NRB standard (%) *	5	5.5	5.5	6	5.50
Difference (%)	3.23	3.49	5.36	5.75	4.65

*Source: PFL annual Reports*

As shown in table 4.1, the core (Tier 1) capital ratio of PFL is maximum of 11.75 in FY 2062/63 and minimum of 8.23 in FY 2059/60. Thus, it is clear that the core capital adequacy ratio of the PFL is increasing tendency up to FY 2062/63 and thereafter, it is decreased in FY 2063/64. The ratio is in fluctuating trend. The changing pattern of the core capital adequacy ratio and regularly increasing trend of core capital provide the clear way for conclusion that the total risk adjusted assets of the PFL is instable during the study period. However, the core capital adequacy ratio of the PFL is greater than the NRB standard over the study period. The observed value of core capital adequacy ratio of the PFL is shown with NRB in figure 4.1 below.

**Figure 4.1: Comparing Core Capital Adequacy Ratio with NRB standard**



As shown in figure 4.1, it is clear that the core capital adequacy ratio of PFL is above the NRB standard during the study period. It means the PFL is applying adequate amount of internal sources of shareholder's funds with significance over the study period.

#### 4.1.1.2 Supplementary Capital Adequacy Ratio

Supplementary (Tier 2) capital is another component of finance company. Supplementary capital means the amount of capital that are transferred in free reserve and collected by using the hybrid capital instruments, General Loan Loss provision, Exchange Equalization Reserve, Assets Revaluation Reserve, Interest Spread Reserve, Subordinate Term Debt and other Free Reserve (Baral, 2005, p.43). The ratio reflects proportion of supplementary capital component in total risk adjusted assets and relative contribution in the CAR. NRB regulates supplementary capital ratio by allowing supplementary capital not exceeding 100% of the core capital for CAR calculation.

**Table 4.2 Supplementary Capital Adequacy Ratio**

<b>Amount in thousands</b>					
Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64
supplementary capital (Rs)	7893.25	7165	6113.2	6522.92	7016.7
Total Risk Weighted assets (Rs)	564646.9	588592.1	679222.6	746602.5	1081858.4
Supplementary capital Adequacy Ratio (%)	1.40	1.22	0.90	0.87	0.65
NRB standard (not more than core capital) (%) *	8.23	8.99	10.86	11.75	10.15
Excess/ Short (%)	6.83	7.77	9.96	10.88	9.50

Source: PFL annual reports

As shown in table 4.2, the supplementary capital ratio of PFL is range from a minimum of 0.65% in FY in 2063/64 to maximum of 1.44% in FY 2059/60. The ratio of PFL is decreasing trend. There is maximum supplementary capital in FY 2059/60 of 1.04% and minimum in FY 2063/64 of 0.65% over the study period. However, the supplementary capital ratio of PFL is with in boundary of NRB standard over the study period. The observed value of supplementary capital ratio of the PFL is shown with NRB standard in figure 4.2.

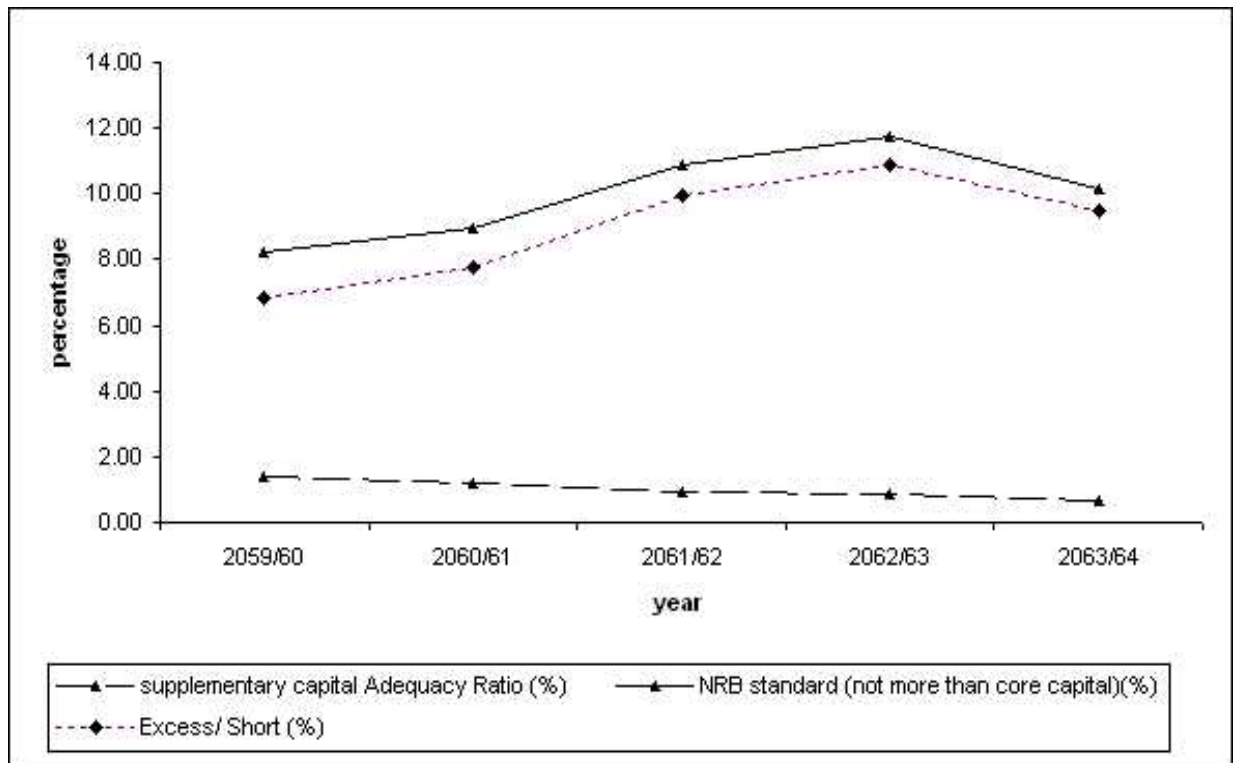
**Figure 4.2 Comparing Supplementary Capital Adequacy Ratio with NRB standard**

Figure 4.2 shows the observed supplementary capital adequacy ratios are within the standard of NRB, over the study period. It means the supplementary capital of the PFL is significant as per the NRB standards. The PFL is able to maintain positive difference greater than 6% throughout the study period.

#### 4.1.1.3 Total Capital Adequacy Ratio

Total capital fund means the amount invested by shareholders, creditors and the amount collected from the various free reserves maintained in a company. Capital fund includes the amount of core capital and supplementary capital. Strong capital base is the pre-requisite for the safety and soundness of any company (Baral, 2005, p.43). Capital adequacy ratio above the NRB standard indicates adequacy of capital and signifies higher security to depositors, higher internal sources and higher ability to cushion operational and unanticipated losses. The lower value, on the contrary, indicates lower internal sources, comparatively weak financial position and lower security to depositors.

**Table 4.3: Capital Adequacy Ratio**

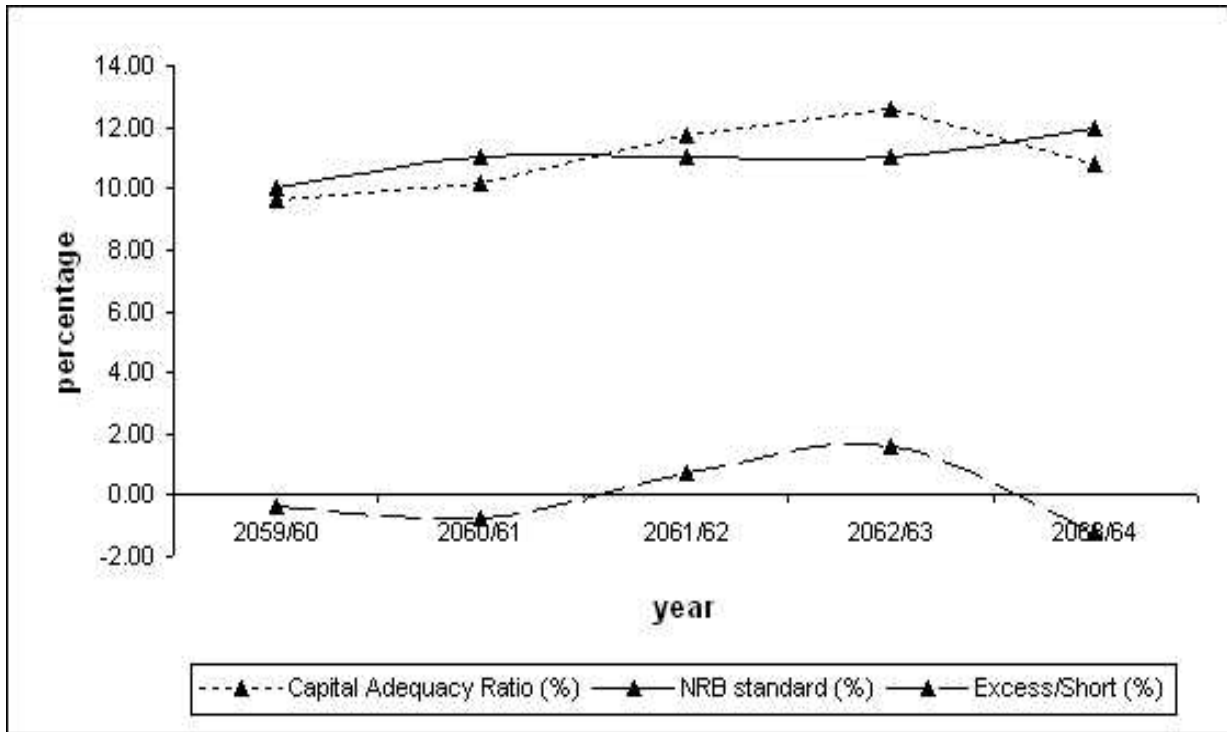
Fiscal Year	Amount in Thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Capital Funds (Rs)	54367.09	60096.43	79896.04	94237.08	116832.7
Total Risk Weighted assets (Rs)	564646.9	588592.1	679222.6	746602.5	1081858
Capital Adequacy Ratio (%)	9.63	10.21	11.76	12.62	10.80
NRB standard (%)	10	11	11	11	12
Excess/Short (%)	-0.37	-0.79	0.76	1.62	-1.20

*Source: PFL annual reports*

As shown in table 4.3 the capital adequacy ratio of PFL is distributed as minimum ratio of 9.63% in FY 2059/60 and a maximum ratio of 12.62% in FY 2062/63. The ratio of the PFL is increasing in the beginning year up to FY 2062/63 and decreased in FY 2063/64. Capital funds and risk weighted assets are in increasing trend. The PFL capital adequacy ratios are within NRB standard only in two years over the study period (i.e. FY 2061/62, 2062/63). The capital adequacy ratios are not within NRB standard in three FY over the study period (i.e. FY 2059/60, 2060/61, 2063/64). The observed value of capital adequacy ratio of the PFL is shown with NRB standard in figure 4.3 below.



**Figure 4.3: Comparing capital adequacy ratio with NRB standard**



As shown in figure 4.3, the capital adequacy ratios of PFL are in fluctuating trend. The PFL is success to maintain its capital adequacy ratio only in two FY with NRB standard over the study period. The PFL was not able to maintain its capital adequacy ratio for three FY with NRB standard over the study period.

#### 4.1.2 Asset Quality Analysis

Asset quality is one of the most critical areas in determining the overall condition of a financial institution. The primary factor effecting overall asset quality is the quality of the loan portfolio and the credit administration program. The extent of the credit risk depends on quality of assets held by an individual FI. The quality of assets held a FI depend an exposure to specific risk, trends in non-performing loans and the health and profitability of bank borrowers especially the corporate sector (Baral, 2005, p.44). NRB uses compositing of assets, non-performing loan to total loan and loan loss provisioning ratio are taken as the indicator to examine the asset quality of financial institutions. NRB has directed the financial institution in regards to the concentration of the loan. Any licensed FI can grant the fund base loan to a single borrower or borrowers related to the same business group up to 25% of its primary capital. In the same vein, it can

provide the non fund base loan up to 50 % of its core capital (NRB, 2005). Similarly it was directed FIs to classify the loans into performing loan and non-performing loans. The loans that are not due and 3 months past due fall in the class of performing loans/performing assets and others do in the non-performing loans. Further non-performing loans are classified into three groups; substandard, doubtful and bad/loss assets requiring provisioning of 25%, 50% and 100% respectively (NRB, 2005).

In the study assets composition, non-performing loan and loan loss provision are taken and prove to measure assets quality of the FIs.

#### 4.1.2.1 Assets Composition

The assets portfolio of the financial institution is both complex and interesting. It represents more faithfully the varied nature and ramification of the FI function and policies. In fact the assets side of the balance sheet indicates the manner in which the funds entrusted to the FI are deployed. Usually every banker seems to arrange its assets in an ascending order of profitability and descending order of liquidity (Chand, 2006, p.84) Thus, the structure of a balance sheet indicates assets appearing in the descending order of liquidity. The capital and liabilities of FIs are invested in various assets in the form of cash and bank balance, placements, investments, bills purchase, loan and advances and fixed assets. Loans and advances contain the high proportion of potential risk to the FI's capital. Assets not only determine the soundness of a FI but also its capacity to earn profits.

**Table 4.4: Assets Composition (in %)**

Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64	Mean
Cash & Bank balance	1.37	4.98	1.63	3.94	1.75	2.734
Money at call	0	0	2.02	6.83	5.57	2.884
Investment	10.42	7.6	9.57	15.72	22.7	13.202
Loan & advances	82.69	82.55	85.84	73.49	69.34	78.782
Fixed Assets	0.22	0.18	0.15	0.11	0.11	0.154
Other Assets	5.3	4.69	0.79	-0.09	0.53	2.244
Total	100	100	100	100	100	100

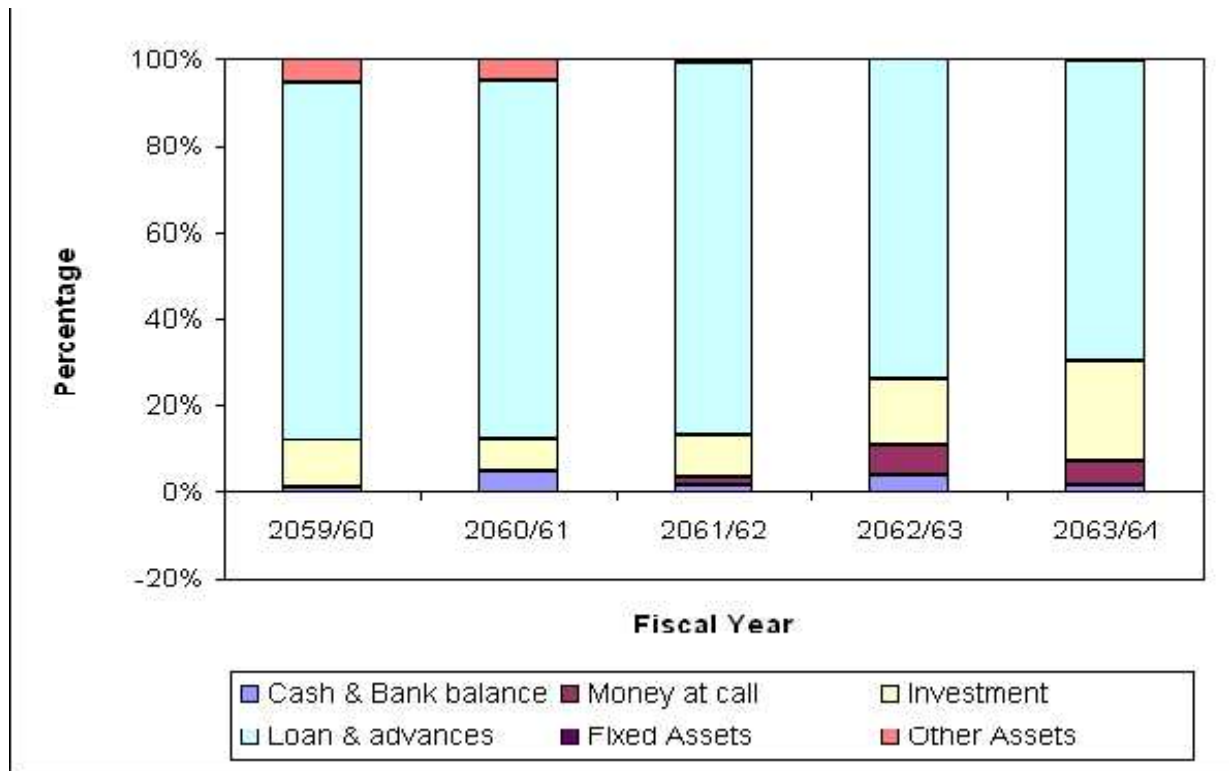
*Source: PFL Annual Reports*

As shown in table 4.4, percentage of cash and bank balance is fluctuating trend. In the beginning the balance is increased, then decreased, again increased and in last year the balance is decreased. The money at call is nil in the beginning two years. Then it is increasing trend for twp

years thereafter it is decreased in last fiscal year over the study period. The percentage of investment has decreased in first two fiscal years. Then it is increasing trend from FY 2061/62 till FY 2063/64. Similarly, the percentage of loan and advances is decreasing trend except FY 2061/62. Likewise, the percentage of fixed assets and other assets is decreasing trend over the study period. The mean percentage of cash and bank balance, money at call, investment, loan and advances, fixed assets and other assets are 2.734, 2.884, 13.202, 78.782, 0.15 and 2.224 percent respectively during the study period.

As shown in table, the company's large part of assets is loan and advances and lowest part is fixed assets. The figure 4.4 shows the assets composition of the finance company during the study period.

**Figure 4.4 Assets Composition**



#### 4.1.2.2 Non-performing Loan to Total Loan and Advances.

Loan and advances usually represent the single largest assets of most financial institutions. When the borrowers fail to pay the interest or even principles within the time frame

the performance loan begins to start in non-performing loan. As per NRB directives all loans and advance must be classified in order of principles default aging into pass (past due up to 3 months), sub-standard (past due between 3-6 months), doubtful (past due 6-12 months) and loss/bad (past due over 1 FYs).(NRB directives, 2061). NPL forms an aggregate of substandard, doubtful and loss loans. The ratio of NPL to total loan and advances shows the percentage of NPL in total loan. The lower the ratio the better is the proportion of performing loans and risk of default.

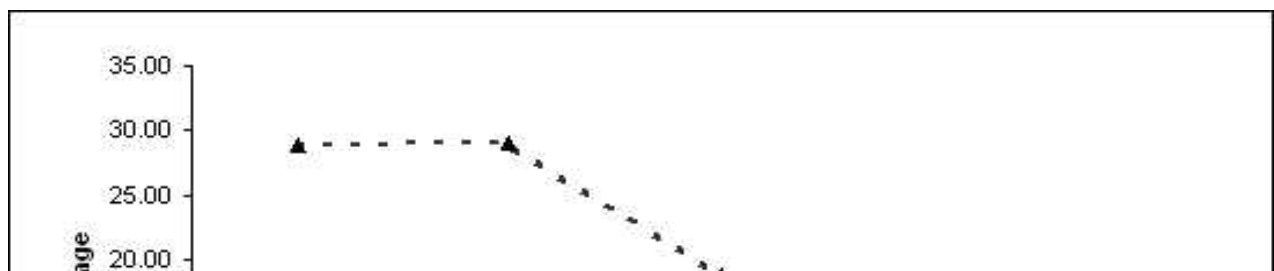
**Table 4.5: Non-performing Loan Ratio**

Fiscal Year	Amounts in thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Non-performing loan (Rs)	24205	38753	49094	48107	62425.47
Total Loan (Rs)	375855	522983.9	660415.67	710660.9	825556.4
NPL Ratio (%)	6.44	7.41	7.43	6.77	7.56
Industrial average (%) *	28.8	29	18.79	14.22	10.12

Sources: PEL annual reports, \*Banking and financial statistics NRB, No. 49 July, 2007

Table 4.5 shows that the ratio of NPL with comparing to industrial average for the study period. The NPL ratios of PFL are slightly increasing trend except FY 2062/63 over the study period. The ratios of PFL are not more fluctuating trend. The ratios of different FY are near one to another. The largest ratio is 7.56% in FY 2063/64 and smallest ratio is 6.44% in FY 2059/60. All ratios are below the industrial average. The observed value of NPL ratio of the PFL is shown with industrial average in figure 4.5 below.

**Figure 4.5 Comparing Non-performing Loan ratio with Industrial Average**



In figure 4.5, NPL curve of PFL is below the industry average curve in all observed FYs. But in last year the PFL ratio and industrial ratio are near. If the line is going in this trend, the PFL NPL ratio may cross the industrial ratio. Because the industrial ratios are decreasing trend by very differently. However, the PFL's NPL ratios are single digit. Single digit NPL ratio is internationally recognized to be acceptable (Baral, 2005, p.44)

#### **4.1.2.3 Loan Loss Ratio**

The loan loss provisioning ratio indicates adequacy of allowance for loans and trend in the collection of loan and the performance in loan portfolio. It is obtained by the ratio of loan loss provision to the total loan (Garden and Miller, 1988). Loan loss ratio previous useful insight into the quality of a financial institution loan portfolio and bad debts coverage and the adequacy of loan loss provisions. Greater loan loss provision is required to allow if high loss is expected. This ratio shows the possibility of loan default of a financial institution. It indicates how efficiently FI manages its loan and advances and makes effort for the loan recovery. Higher ratio implies higher portion of non-performing loan portfolio. The ratio of loan loss provision to total loans and advances describes the quality of assets that FI is holding. The provision for loans loss reflects the increasing probability on non-performing loans in the volume of total loans and advances. Loan loss provision on the other hand signifies the cushion

against future contingency created by the default of the borrowers. The high ratio signifies the relatively more risky assets in the volume of loans and advances. The high provision for loan loss shows the recovery of loan to be difficult and irregular and the age of the loan is increasing. More delay the FI gets to collect the loan, the provision will be higher and the ratio will be higher. Altman and Sametz (1977) have identified few early warning variables based on the balance sheet. The loan loss ratio is defined as the measure of prospective losses that are envisioned by the FI management in relation to the FIs overall loan and investment.

**Table 4.6: Loan Loss Ratio**

Fiscal Year	Amount in thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Loan Loss Provision (Rs)	18538	27445	31867	55913	77124
Loan and Advances(Rs)	375855	522983.9	660415.7	710660.9	825556.4
Loan Loss Ratio (%)	4.93	5.25	4.83	7.87	9.34

Source: PFL Annual Reports

Table 4.6 exhibits that the loan loss ratio for the study period has increasing trend except FY 2061/62. The ratio range is from 4.83% to 9.34%. The mean of loan loss ratio is 6.44% and standard deviation is 2.046% over the study period. Figure 4.6 shows trend of loan loss ratio.

**Figure 4.6 Trend of Loan Loss Ratio**

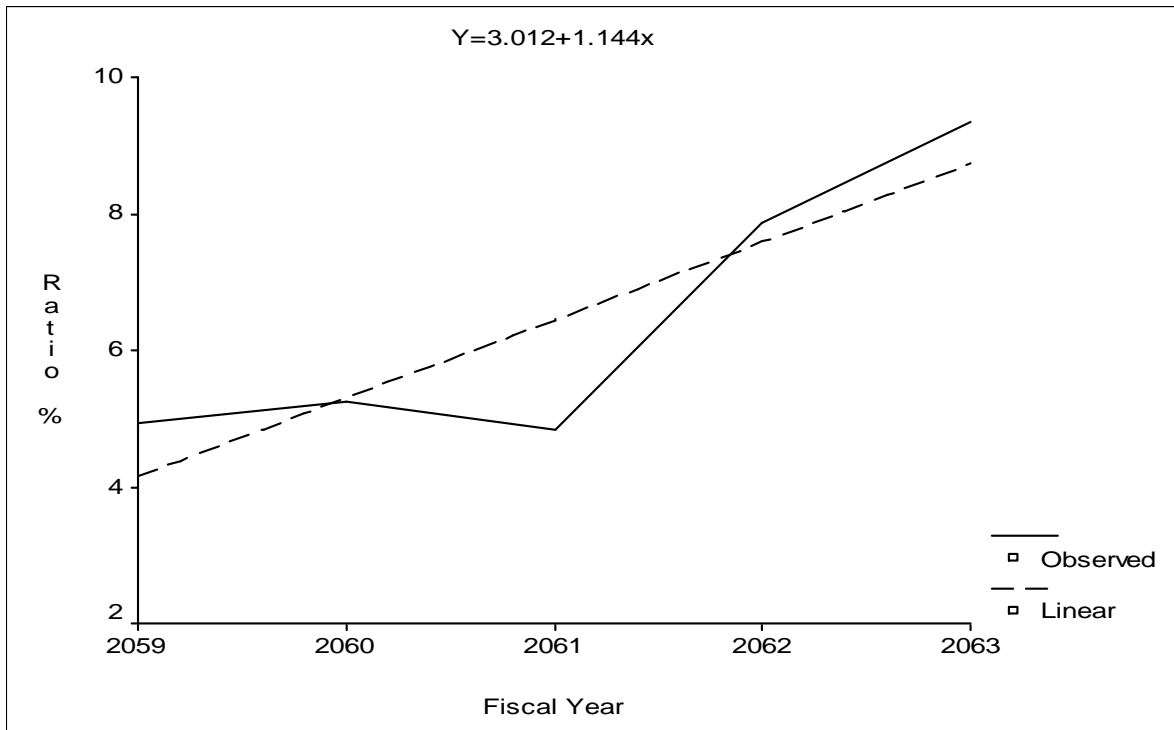


Figure 4.6 shows the observed value of loan loss ratio along with least square trend line. The ratio is moving up and down during the study period. The slope of the trend line is determined by the least square method is positive which indicates the trend of loan loss ratio is increasing over the study period.

### **4.1.3 Management**

Sound management is the key of financial institution performance. The general management of the institution, human resources policy, governance, management information system, internal control, auditing, strategic planning and budgeting are distinct areas that reflect the overall quality of management (Rose, 1999, p.64).

While the others factors can be quantified fairly easily from current financial statements, management quality is some what being subjective and difficult to measures. There is one measure that is relevant to management is the ratio of total expenses total revenue. Assuming that how good the management is correlated with this ratio is use to represent the management. Another measure that is also relevant to management is the ratio of earnings per employee is used as a proxy of management quality.

#### **4.1.3.1 Total Expenses to Total Revenue Ratio**

The ratio of total expenses to total revenue is used as a proxy measure of the management quality. This ratio is calculated by dividing the total expenses by total revenues. A high level of expenditure in un-productive activities may reflect an inefficient management. A high or increasing ratio of expenses to total revenue may give indication of inefficient operation. This can be, but necessarily due to management deficiencies. In any case, it is likely to negatively affect profitability (IMF, 2000, p.26).

Financial institution earning originates from interest on loan and advances, investments, commission and discounts, foreign exchange rate, gains and miscellaneous income. Conversely, it expends on depositor's interest, staff salary, provident fund, allowances and other operating expenses like rent, water, electricity, fuel expenses, audit fee expenses, management expenses, losses shortage written off, provision for income tax are non operation expenses.

**Table 4.7: Total Expenses to Total Revenue Ratio**

Fiscal Year	Amount in thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Total Expenses (Rs)	35203	53515	55792	83593	88061
Total Revenue (Rs)	60679	78226	80937	92653	116185
Total Expenses /Total Revenue Ratio (%)	58.02	68.41	68.93	90.22	75.79

Source: PFL annual reports

As shown in table 4.7, the total expenses to total revenue ratio is increasing up to FY 2062/63 then after it is decreased in FY 2063/64. From the above table, PFL expenses are high. In FY 2062/63, there is greater expenses 90.22% and in FY 2059/60 lower expenses 58.02% over the study period. In this way, PFL expenses are high with the comprising its revenue.

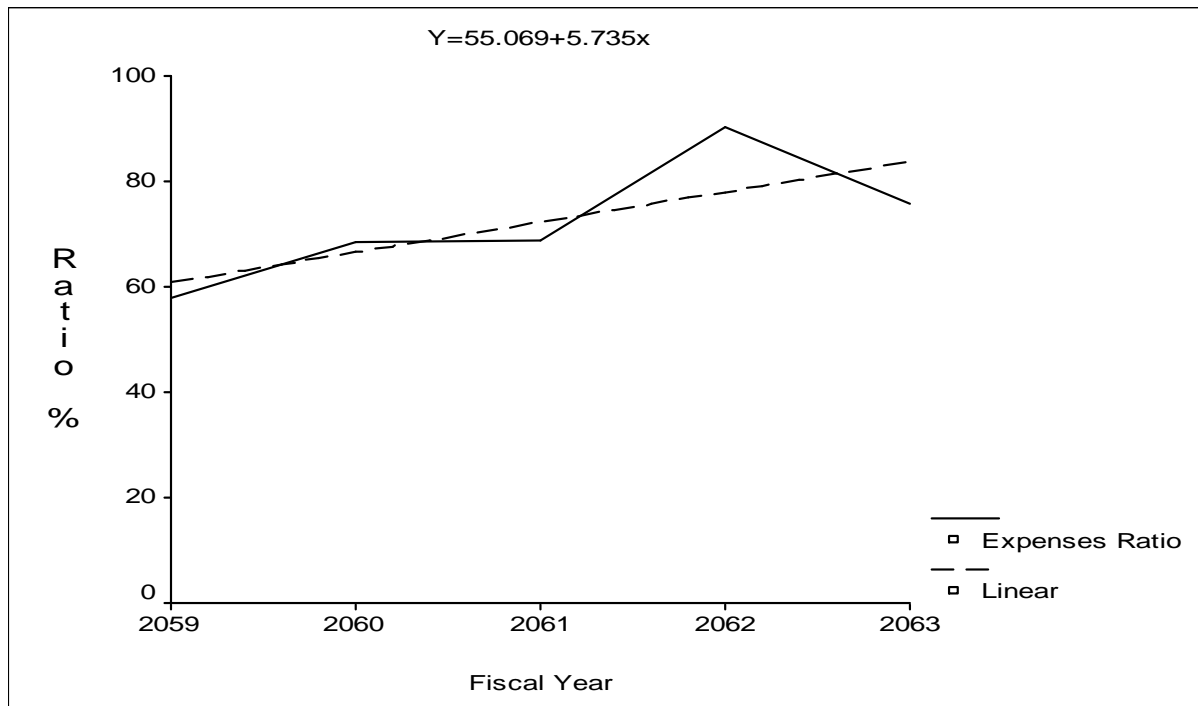
**Figure 4.7: Total Expenses to Total Revenue Ratio**

Figure 4.7: shows the total expenses to total revenue ratio with least square trend line. The slope of least square trend line is positive i.e.5.735. So the linear line is going down to up. It shows the ratio is increasing trend over the study period. It is not favorable for PFL. The loan loss provision is very high in FY 2062/63. So, the total Expenses also is increased highly but revenue is increased in low less than expenses ratio. So, the total expenses to total revenue ratio in FY 2062/63 is very high i.e. 90.22%.



#### 4.1.3.2 Earning Per Employee

An earning per employee is also taken as measure of management quality in this study. It is calculated dividing net profit after taxes by number of employees. Low or decreasing earning per employee can reflect in efficiencies as a result of overstaffing with similar repercussion in terms of profitability (IMF, 2001, p.29).

**Table 4.8: Earning Per Employee**

	Amount in thousands				
Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64
Net Profit (Rs)	13560	15493	15466	1827	14003
No. of employees	13	15	15	14	16
Earning per employee (Rs)	1043.08	1032.87	1031.07	130.50	875.19

Source: PFL annual reports

Table 4.8 shows the earning per employee in rupees during the study period. The ratio is decreasing trend up to 2062/63 and then increasing but it is lower than its greatest value. Over the study period, maximum earning per employee is Rs1043.08 thousands and minimum is Rs 130.5 thousands in FY 2059/60 and 2062/63 respectively. The mean ratio of earning per employee is Rs 822.54 thousands over the study period.

**Figure 4.8: Trend of earning per employee**

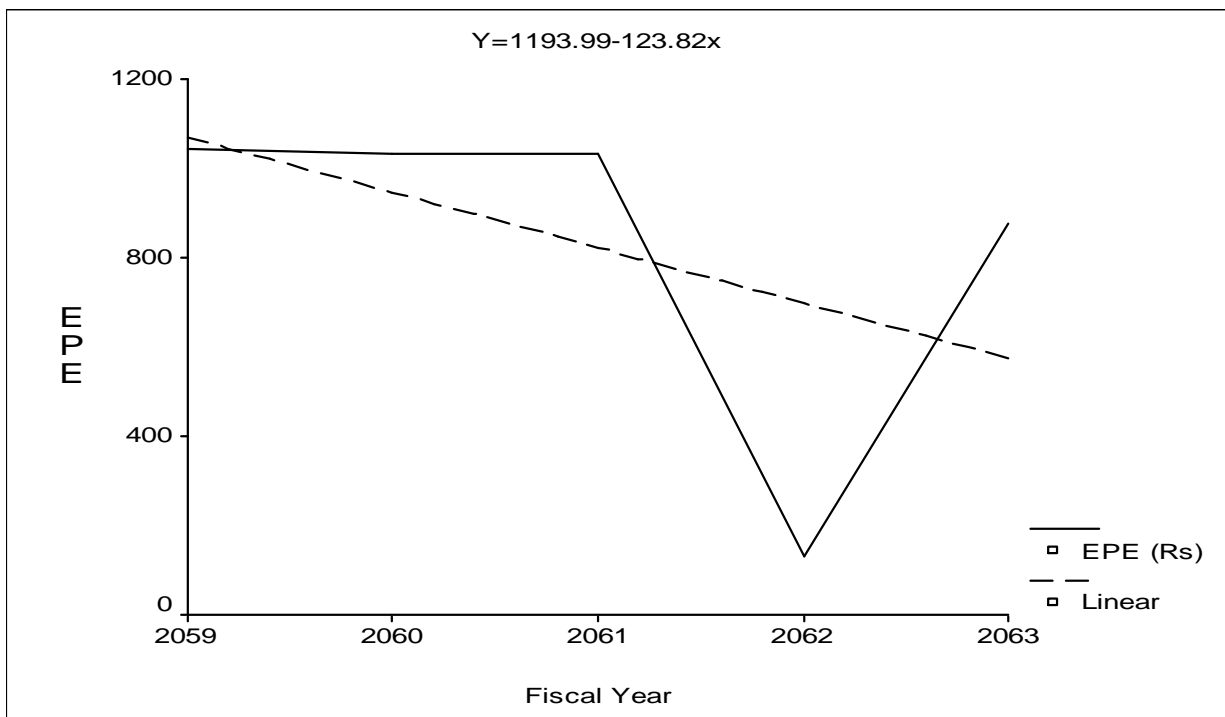


Figure 4.8 shows the observed value of earning per employee with least square linear line. The slope of the trend line is negative i.e. -123.815. Which indicates the earning per employee is decreasing trend over the study period.

#### 4.1.4 Earning Quality

The main objective of FI is to earn profit and their level of profitability is measured by profitability ratios. Earnings represent the first line of defense against capital depletion resulting from shrinkage in asset value. Earning performance should also allow the FI to remain competitive by providing the resources. Profitability ratio are calculated to measure to the efficiency of FI, higher profit ratios indicates higher efficiency and vice versa.

##### 4.1.4.1 Return on Equity (ROE)

ROE is measure of the rate of return flowing to the company's shareholders. It approximates the net received from investing their capital in the company (Peter, 1999, p.46). Return on equity reveals how well the FI uses the resources of owners. The higher ratio represents sound management and sufficient mobilization of the owner's equity and vice versa. ROE of 15% is treated as standard and banking industry are desired to have higher than this (Baral, 2005, p.50).

**Table 4.9: Return on Equity (ROE)**

Fiscal Year	Amount in thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Net Profit (Rs)	13560	15493	15466	1827	14003
Shareholder Equity (Rs)	20000	20000	20000	52000	60000
Return on Equity (%)	67.8	77.47	77.33	3.51	23.34

*Source: PFL annual reports*

As shown in table 4.9, the return on equity ratio of the PFL is minimum of 3.51% and maximum of 77.47% in FY 2062/63 and 2060/61 respectively. The mean ratio of the PFL is 49.89%, standard deviation is 34.24% and the coefficient of variation of them is 0.69. The observed values of ratio are fluctuating over the study period. The mean ratio is near 50%, it is reasonable for the PFL. If we compare ROE with its mean it is increasing trend in the beginning period and decreasing trend in ending period of over the study period. The profit is very low in FY 2062/63 due to very high loan loss provision and the shareholder equity is increased in this year by 32000 thousands. So, ROE of PFL is inconsistency.

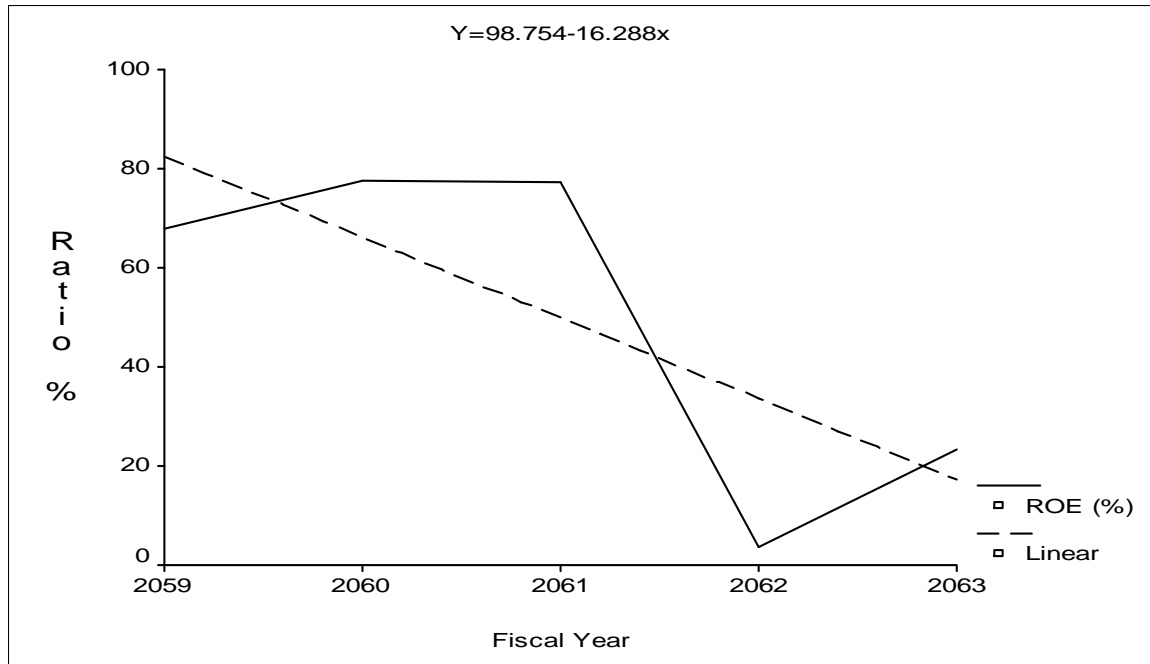
**Figure 4.9: Trend of Return on Equity Ratio**

Figure 4.9, shows the trend of return on equity with least square linear line. The least square slope is negative i.e. -16.288. This indicates, the trend of ROE is decreasing trend over the study period.

#### 4.1.4.2 Return on Assets (ROA)

ROA is measure of the rate of return flowing to the company's total assets. It is a measure of profitability linked to the asset size of the FI (Dongal and Parjapati, 2000, p.399). It is primarily an indicator of managerial efficiency; it indicates how capably the management of the FI has been converting the institutions assets into net earnings (Krishna, 2006, p.87). ROA is a popular tool to measure how well its assets are utilized in generating profit. It measures the profit earning capacity by utilizing available resources i.e. total assets, return will be higher if the FI resources are well managed and efficiently utilized. Generally, the return on assets ratio should be 1% and higher is desired to the banking industry (Krishna, 2006, p.87).

**Table 4.10: Return on Assets**

<b>Amount in thousands</b>					
Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64
Net Profit (Rs)	13560	15493	15466	1827	14003
Total Assets (Rs)	432097	600270	632191	890983	1079290
Return on Assets (%)	3.14	2.58	2.45	0.21	1.30

Source: PFL annual reports

As shown in Table 4.10, the return on asset ratio of the PFL is minimum of 0.21% in FY 2062/63 and maximum of 3.14% in FY 2059/60. The ratio is decreasing trend up to FY 2062/63 then increasing from 2063/64. But it is decreased than only last year. In overall the trend is decreasing. The mean ratio of ROA is 1.93%, standard deviation is 1.17%. The mean ratio is above 1% benchmark. So, the PFL ROA is also with in benchmark.

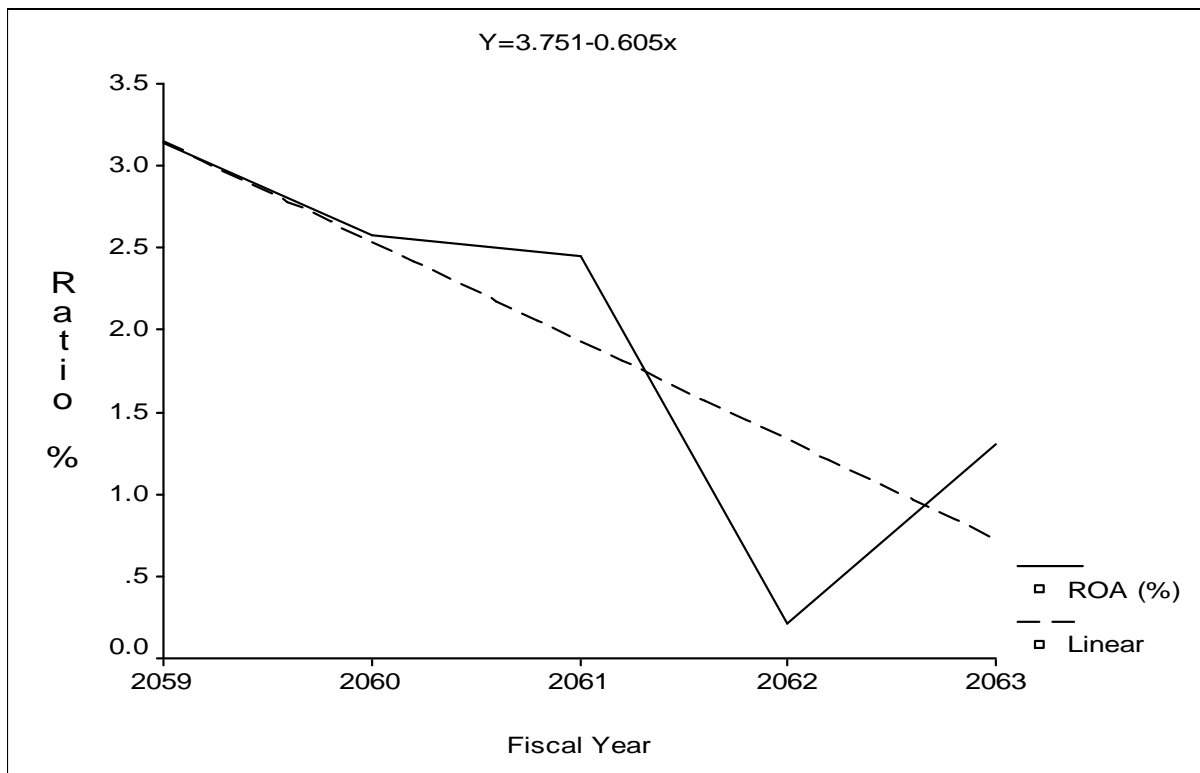
**Figure 4.10 Trend of Return on Assets Ratio**

Figure 4.10 shows the observed value of ROA with least square linear line. The slope of linear line is negative i.e.-0.605. The negative slope of linear indicates decreasing trend. So, the trend of ROA is decreasing over the study period. The total assets of PFL have increased in last two years very high but net profit is decreased due to high expenses. So, the ROA of PFL also is in decreasing trend over the study period.

#### 4.1.4.3 Net Interest Margin (NIM)

The net interest margin measure how large a spread between interest revenues and interest costs management has been able to achieve by close control the FI earning assets and the pursuit if the cheapest sources of finding (Peter, 1999, p.47). It is calculated the net interest income dividing by earning assets. Under earning assets loans and advances, bills purchase and discounted and investment made in securities (T-Bill, Bonds) are included.

Generally, the net interest margin ratio should be 3% to 4% and higher is better in FI industry (World Bank, 1996, p.254). However, it highlights the fact that looking at returns without looking at risk can be misleading and potentially dangerous in terms of FI solvency and long run profitability (Saunders and Cornett, 2004, p.57).

**Table 4.11: Net Interest Margin**

Fiscal Year	Amount in thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Net Interest Income (Rs)	26647	30135	28299	33722	47811
Earning Assets (Rs)	377936	547056	680393	780621	886212
Net Interest Margin (%)	7.05	5.51	4.16	4.32	5.39

*Source: PFL annual report*

As shown in Table 4.11, the NIM of PFL ratio is minimum of 4.16% in FY 2061/62 and maximum of 7.05% in FY 2059/60. The NIM ratio of PFL is decreasing trend up to FY in 2061/62 and then it is slightly increasing from FY 2062/63. The mean ratio for the period is 5.29%, and standard deviation is 1.16% .it can be concluded that, the NIM ratio of PFL is accepted. Because it is with in standard, the standard of NIM ratio is 3% to 4%.

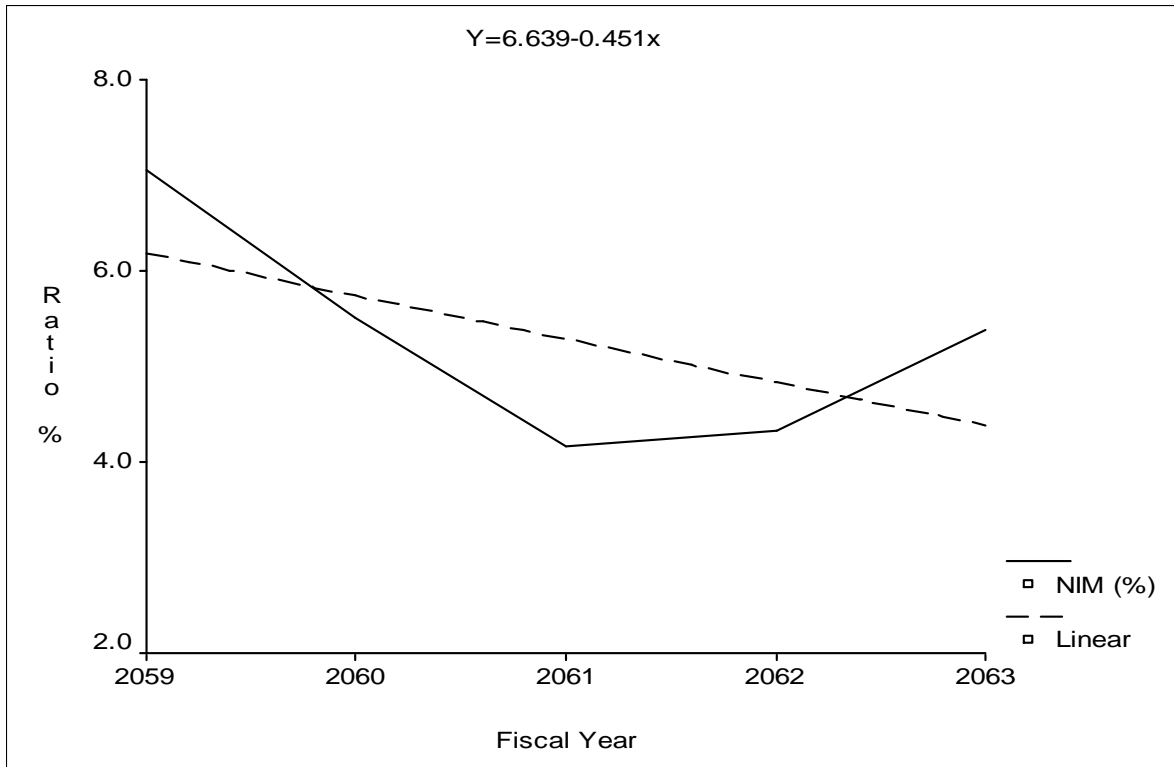
**Figure 4.11: Trend of Net Interest Margin Ratio**

Figure 4.11 shows the observed value of net interest margin ratio with least square linear line. The slope of linear line is negative i.e. -0.451. it indicates that , the trend of NIM is decreasing over the study period.

#### 4.1.4.4 Earning Per Share (EPS)

Earning per share provides a direct measure of the returns flowing to the company owners, its stock holder's measure relative to the number of shares to the public (Peter, 1999, p.49). The earnings per share of an organization give the strength of the share in the market. The earnings per share of PFL are tabulated below:

**Table 4.12: Earning Per Share**

Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64
Net Profit (Rs in thousands)	13560	15493	15466	1827	14003
No of Share (In thousands)	200	200	200	400	600
Earning Per Share (Rs)	67.8	77.47	77.33	4.57	23.34

Source: PFL annual reports

Table 4.12 shows that the EPS of the PFL has ranged between Rs 4.57 to Rs 77.47. The PFL EPS is decreasing trend. The maximum EPS is Rs 77.47 in FY 2060/61 and minimum of Rs 4.57 in FY 2062/63. The mean EPS of PFL is Rs 50.10 and standard deviation is 33.89%.

**Figure 4.12 Trend of Earning Per Share**

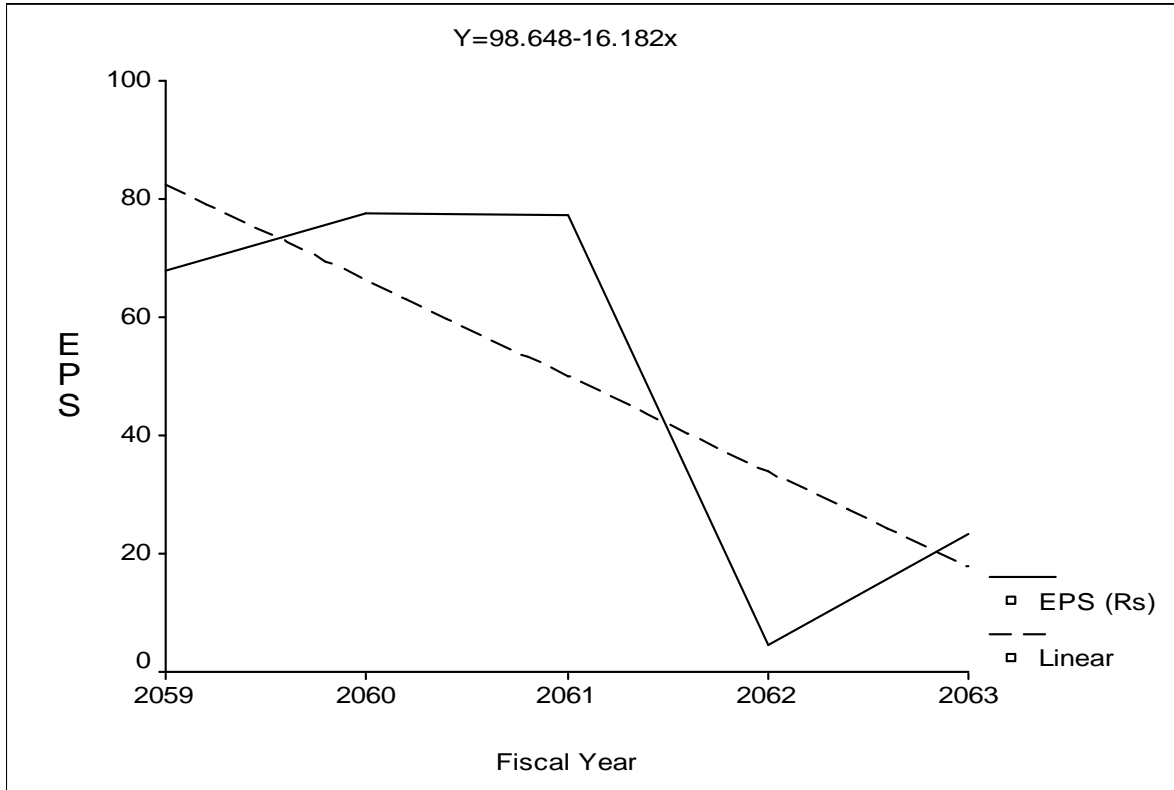


Figure 4.12 shows the observed value of EPS with least square linear line over the study period. The slope of EPS is negative i.e. -16.182. It indicates that, the trend of EPS is decreasing. The number of share has increase in last two years 062/63 and 2063/64 by 200 thousands respectively, but the net profit has decreased in these years. So, the EPS has decreased by very high amount.

#### 4.1.5 Liquidity

The level of liquidity influences the ability of FI system to withstand shocks. Liquidity risk arises when an FI's liability holders like depositors demand immediate cash for the financial claims they hold with an FI. The most liquid asset is cash for which FIs can use directly to meet liability holder's demands to withdraw funds. Day to day withdrawals by liability holders is generally predictable and large. FIs can expect to additional funds on the money and financial markets to meet any sudden shortfalls of cash. At times face a liquidity crisis due to either lack

of confidences on the FI's problem or some unexpected need for cash, the liability holders may demand larger withdrawals than usual. This turns the FI's liquidity problem into a solvency problem and causes it to fail (Saunders and Cornett, 2004, p.42).

#### 4.1.5.1 Liquid Assets to Total Deposit Ratio

This ratio measures the percentage of liquid fund with the company to meet short term obligation. It measures overall liquidity position. Cash in hand foreign currency in hand, balance with NRB, balance held abroad and money at call are including in total liquid fund. This ratio is computed by dividing liquid assets by total deposits. The higher ratio implies the better liquidity position and lower ratio shows the inefficient liquidity position of the company NRB Directives, 2061, p34).

**Table 4.13: Liquid Funds to Total Deposit Ratio**

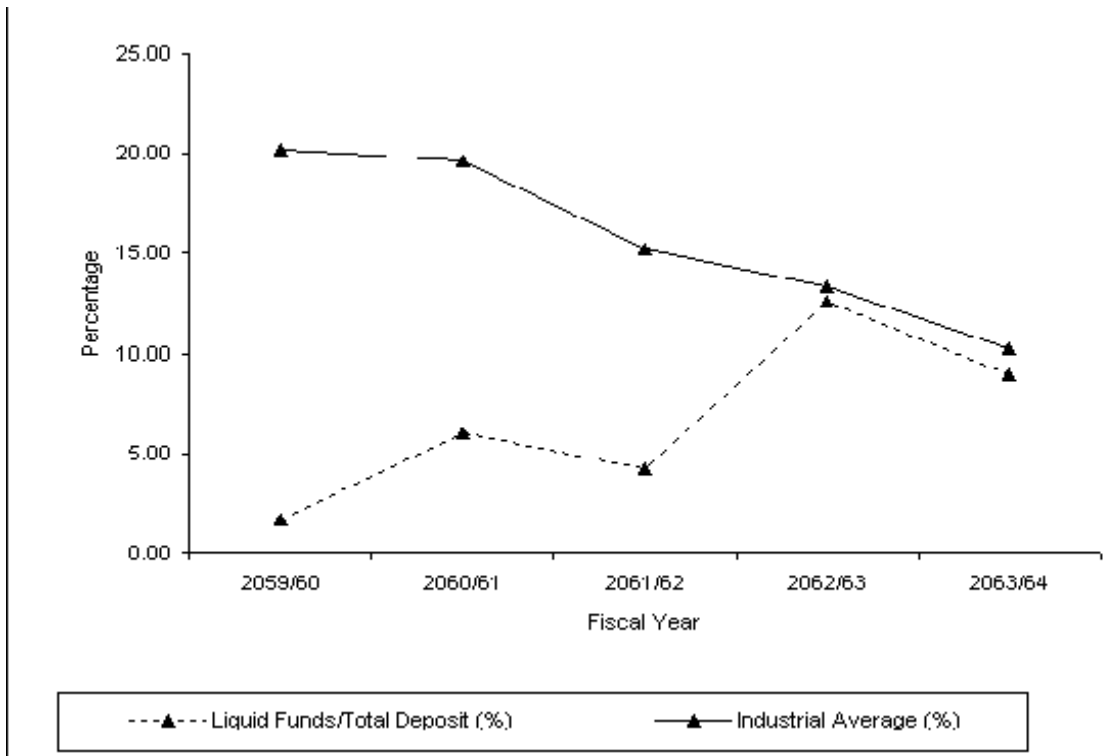
Fiscal Year	Amount in thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Liquid Funds (Rs)	5940	29865	26733	96031	78948
Total Deposit (Rs)	342862	493917	629069	763055	883222
Liquid Funds/Total Deposit (%)	1.73	6.05	4.25	12.59	8.94
Industrial Average (%) *	20.2	19.6	15.2	13.3	10.25
Diff. from Industrial Avg.(%)	-18.47	-13.55	-10.95	-0.71	-1.31

Sources: PEL annual reports, \* Banking and financial statistics NRB, No. 49 July, 2007

Table 4.13 shows that the liquid funds to total deposit ratio of PFL during the period of FY 2059/60 to FY 2063/64. The ratios are fluctuating trend. The ratio is increased in FY 2060/62, thereafter it is increased in FY 2062/63 and again it is decreased in FY 2063/64. The ratio is minimum in FY 2059/60 i.e. 1.73% and maximum in FY 2062/63 i.e. 12.59%. The liquid fund to total deposit ratio of PFL are lower than industrial average during the study period. So, the difference with industrial average is negative for all fiscal year during the study period.



**Figure 4.13: Comparing Liquid funds to Total Deposits Ratio with Industrial Average**



In the above figure 4.13, the total liquid fund to total deposit curve of PFL is under the industry average curve in all the observed fiscal year. It shows that, the liquidity position of PFL is not better than industrial average ratio.

#### 4.1.5.2 NRB Balance to Total Deposit Ratio

This ratio shows whether the FI is holding the balance as required to NRB. To ensure adequate liquidity in the FI to meet the depositors demand for cash at any time, to inject the confidence in depositors regarding the safety of their deposit funds NRB has put the directives to maintain certain percent of total deposit in NRB by the FIs. Total deposits means current, savings and fixed deposit account as well as call account deposit and certificates of deposits. For the purpose, deposits held in convertible foreign currency, employee guaranteed amount and margin account will not be included (NRB Directive Manual, 2004, p.14). The following table shows the NRB balance to total deposit ratio with compare to NRB standard by PFL.

**Table 4.14: NRB Balance to Total Deposit Ratio**

<b>Amount in thousands</b>					
Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64
NRB Balance (Rs)	3500	4950	6400	25902	18082
Total Deposit (Rs)	342862	493917	629069	763055	883222
NRB Balance/ Total deposit (%)	1.02	1.00	1.02	3.39	2.05
NRB standard (%) *	6	6	5	5	5

Sources: PEL annual reports, \*Banking and financial statistics NRB, No. 49 July, 2007

Table 4.14 shows NRB balance to total deposit ratio of PFL. The table shows that, PFL has not maintaining balance with NRB. The balance is under the NRB standard in each fiscal year over the study period. The balance ratio is fluctuating trend.

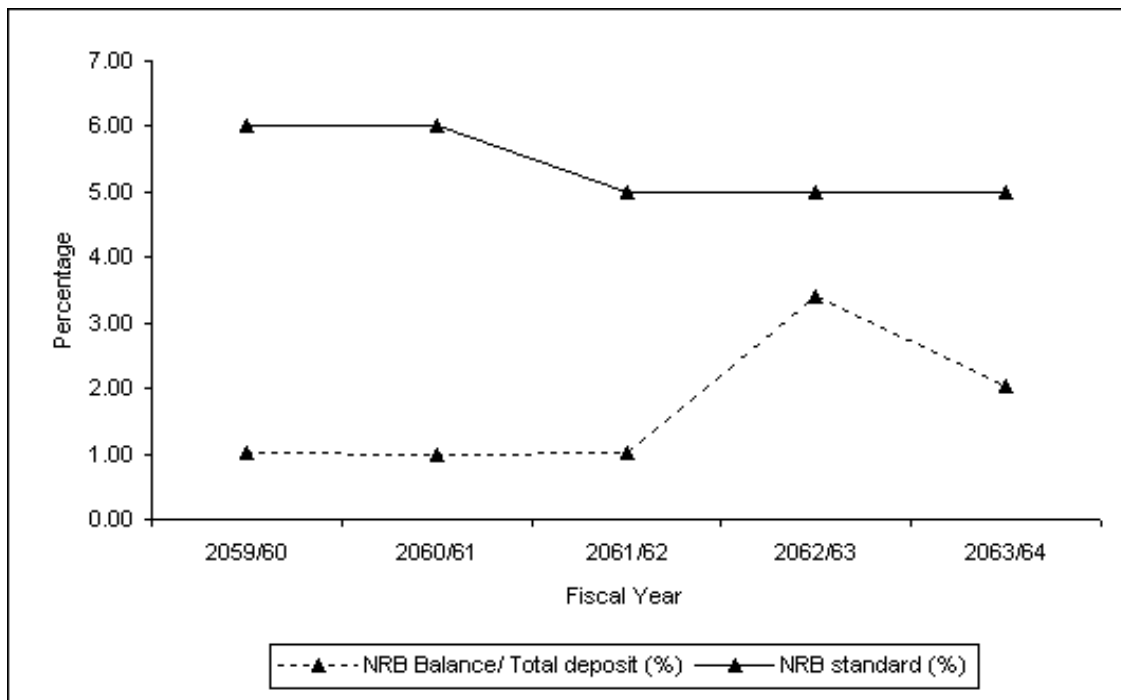
**Figure 4.14: Comparing NRB Balance to Total Deposits Ratio with NRB Standard**

Figure 4.14 shows the NRB balance to total deposit ratio with compare to NRB standard over the study period. As shown in figure 4.14 the NRB balance to total deposit ratio curve of PFL is below the NRB standard curve in each year over the study period. It shows that the NRB balance

is less than NRB standard and PFL has not maintained the balance with NRB as the directives over the study period.

#### 4.1.5.3 Cash in Vault to Total Deposit Ratio

This ratio shows the percentage of total deposits held as cash in vault. This ratio is computed by dividing cash at vault by total deposits. Cash and foreign currencies in hand are included as cash in vault. Total deposit means current savings and fixed deposits account as well as call account deposit and certificates of deposits. For the purpose deposits held in convertible foreign currency, employees guarantee amount and margin account will not be included (NRB Directive Manual, 2004, p.15).

**Table 4.15: Cash in Vault to Total Deposit ratio**

Fiscal Year	Amount in thousands				
	2059/60	2060/61	2061/62	2062/63	2063/64
Cash in Vault (Rs)	359	392	355	168	260
Total Deposit (Rs)	342862	493917	629069	763055	883222
Cash in Vault/Total Deposit (%)	0.10	0.08	0.06	0.02	0.03
Industrial Average (%) *	2.9	1.8	1.9	2.2	1.6
Diff. from Industrial Average (%)	-2.80	-1.72	-1.84	-2.18	-1.57

Sources: PEL annual reports, \*Banking and financial statistics NRB, No. 49 July, 2007

Table 4.15 shows that the cash in vault to total deposit of PFL has fluctuating trend. The highest ratio is 0.10% in FY 2059/60 and lowest ratio is 0.02% in FY 2062/63. The ratio has decreased till FY 2062/63 and then slightly increased in FY 2063/64 over the study period. The ratio is less than industrial average in each year over the study period.

**Figure 4.15: Comparing Cash in Vault Total deposit Ratio with Industrial Average**

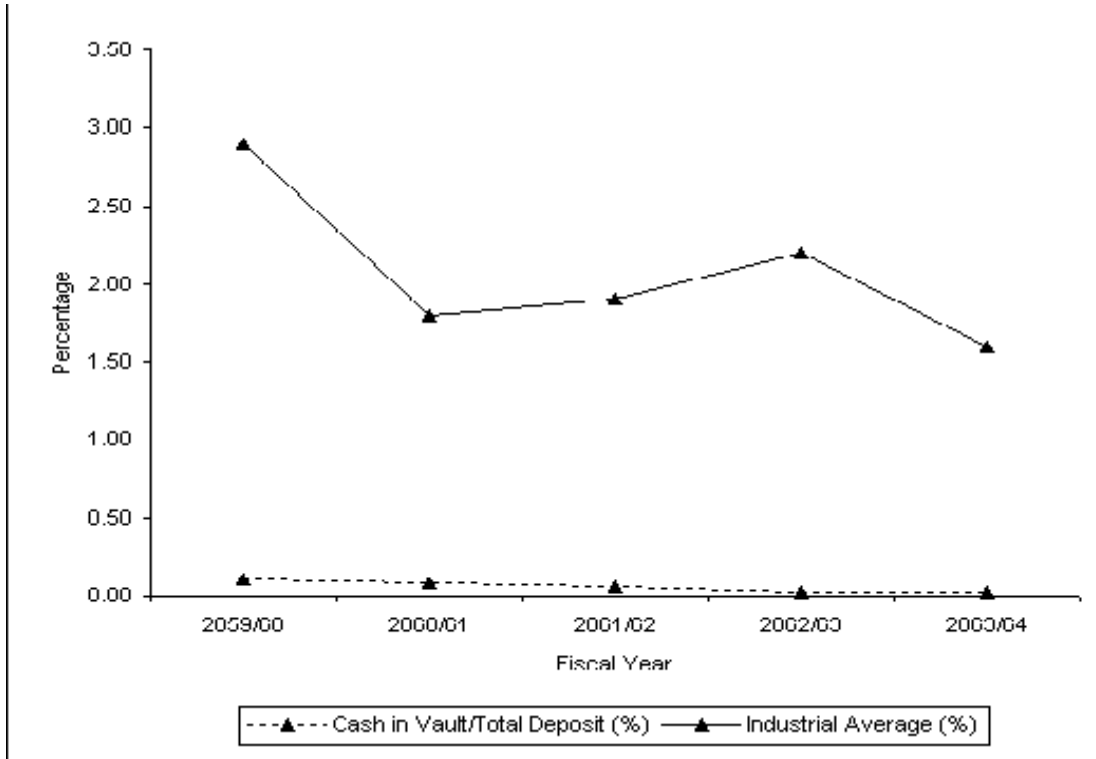


Figure 4.15 shows the observed cash in vault ratio of PFL with compare to industrial average ratio with in the study period. In the figure, the ratio curve is under the industrial average curve in each year. It shows that, the ratio of PFL is less than industrial average in each year.

#### **4.1.6 Sensitivity to Market Risk**

Sensitivity to market risk refers to the risk that changes in market conditions could adversely affect earnings and or capital. Commercial banks are increasingly involved in diversified operations such as lending and borrowing, transaction in foreign exchange, selling off assets pledged for securities and so on. All these are subject to market risk like interest rate risk, foreign exchange rate risk and financial asset and commodity price risk. The health of an FI more sensitive to market risk is more hazardous than of less sensitive. Foreign exchange risk,

interest rate risk, equity price risk commodity price are the indicators of sensitivity to market risk. (Baral, 2005, p.45).

When a FI has more liabilities re-pricing in arising rate environment than assets re-pricing, the net interest margin (NIM) shrinks. Conversely, if the FI is asset sensitivity in arising interest rate environment, NIM will improve because the FI has more assets re-pricing at rates. There are many ways to monitor or exposure to IRR, measurement systems vary in complexity from very simple methods such as a gap model, to very sophisticated models such as a simulation or duration analysis (Peter, 1999, p.162). This study is worked with gap model, which simply measures the net quantity that changes in interest rates will have on earnings. With a view to minimize the IRR, NRB requires the banks to adopt gap analysis adopted for minimizations of IRR. Banks shall classify the time interval of the assets and liabilities on the basis of maturity period of 0-90 days, 91-180 days, 181-270 days, and 271-365 days over 1 FY. The effect on the profitability is measured by multiplying the change in interest rate,  $\zeta R_i$  in the  $i^{\text{th}}$  maturity bucket annualized with cumulative gap (NRB Directives Manual, 2004, p.35).

If the interest rates rise on RSAs and RSLs, the positive CGAP ( $RSA > RSL$ ) would project the increase in the expected annual net interest income (NII). However, if interest rates fall when CGAP is positive, NII will fall. As rates, fall interest revenue falls by more than interest expenses. Thus NII falls by approximately by  $(CGAP) \times (\zeta R)$ . In general when CGAP is positive the change in NII is positively related to the change in interest rates. Thus, FI would want to keep CGAP positive when interest rates expected to rise (Bhandari, 2006, p.86).

Conversely, when the CGAP or the gap ratio is negative ( $RSA < RSL$ ). if interest rates by equal amounts for RSAs and RSLs, NII will fall. Similarly, if interest rates fall equally for RSAs and RSLs, NII will increase when CGAP is negative. As rates, fall interest expenses decrease by more than the revenues. In general, when CGAP is negative, the change in NII is negatively related to the change in interest rates. Thus, FIs are expected to keep CGAP negative when interest rates are expected fall (Bhandari, 2006, p. 86).

Expressing the re-pricing gap as a percentage of assets, gives: (1) the direction of the interest rate exposure (+ or CGAP) (2) the scale of the CGAP against the assets size of the FI.

Gap analysis of RSAs and RSLs of PFL for the period of FY 2062/63 and 263/64 is made as shown in Table 4.16 (a and b) based on the different maturity time bucket.

**a. 2062/63**

	1 to 90	91 to 180	181 to 270	271 to 365	>365	Total
RSA (Thousands)	9603.1		14000		71066.1	94669.2
RSL (Thousands)	990	2650	3220	46760	25475.5	79095.5
GAPi (RSA-RSL) thousands	8613.1	-2650	10780	-46760	45590.6	15573.7
CGAP (RSA-RSL) thousands	8613.1	5963.1	16743.1	-30016.9	15573.7	
RSA/RSL	9.70	0	4.347826	0	2.79	1.20
CGAPi Ratio [CGAP/Total RSA] (%)	9.10	6.30	17.69	NA	16.45	
$\zeta R\%$				1%	1%	
$\zeta NII(\text{thousands})CGAP   \zeta R$				-300.17	155.74	

Source: PFL annual reports

#### b. 2063/64

2063/64	1 to 90	91 to 180	181 to 270	271 to 365	>365	Total
RSA (Thousands)	7894.9				107055.6	114950.5
RSL (Thousands)	7495	4809	12001.8	4000.7	32565.7	60872.2
GAPi (RSA-RSL) thousands	399.9	-4809	-12001.8	-4000.7	74489.9	54078.3
CGAP (RSA-RSL) thousands	399.9	-4409.1	-16410.9	-20411.6	54078.3	
RSA/RSL	1.05	NA	NA	NA	3.29	1.89
CGAPi Ratio [CGAP/Total RSA] (%)	0.35	NA	NA	NA	47.04	
$\zeta R\%$				1%	1%	
$\zeta NII(\text{thousands})CGAP   \zeta R$				-204.12	540.78	

Source: PFL annual reports

The research period is 2058/59 to 2063/64 but lack of the data for review of sensitivity of market risk only two fiscal years (2062/63 and 2063/64) data are taken. Net financial assets (RSA-RSL) reprising in the short term maturity bucket ranging from 0-90 day to 271-365 days was positive and negative both. In the long term maturity bucket (> 365 Days) the gap was positive in both two years by Rs 45590.6 and Rs 74489.9.

**Figure 4.16: Level of Risk Sensitivity Assets and Liabilities over term**

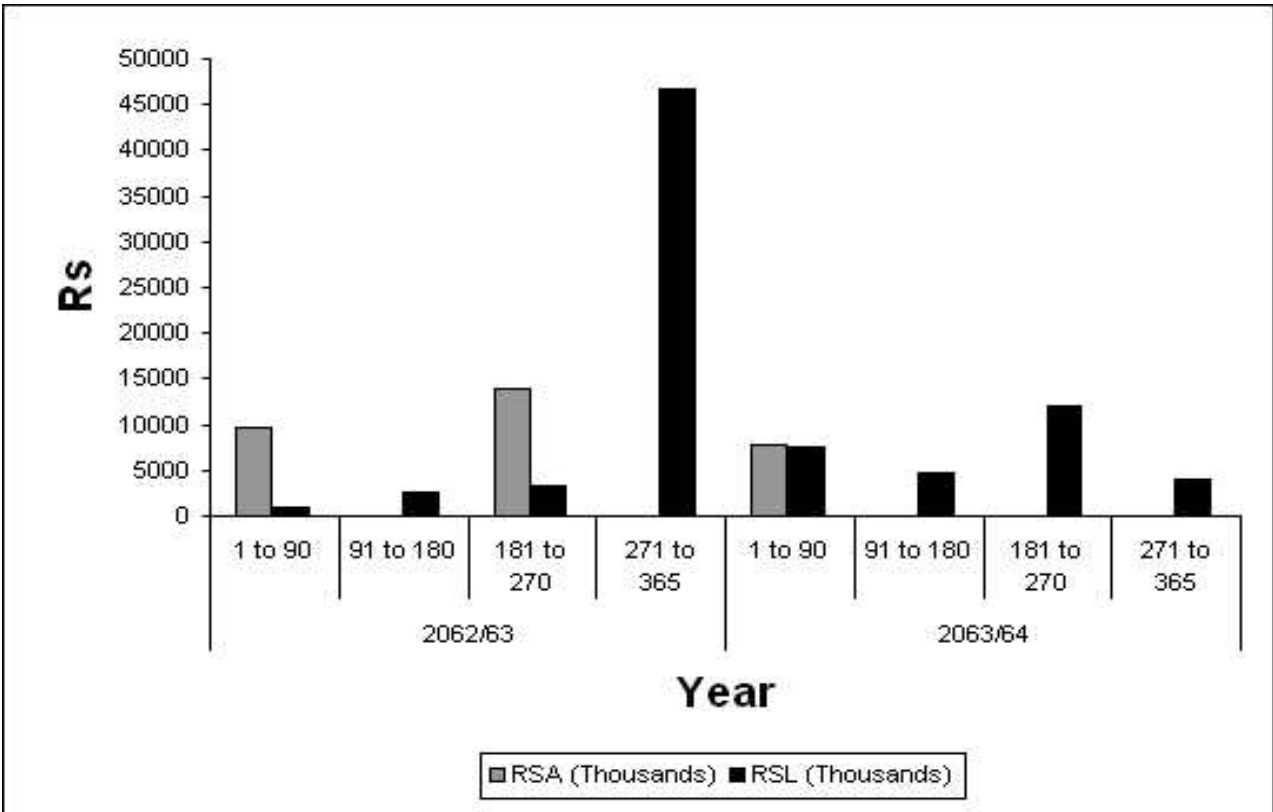


Figure 4.16 shows a comparison of RSAs and RSLs of the PFL in a time bucket ranging from 0-90 days to 365 days time horizon. The cumulative gap, CGAP of the RSAs and RSLs reprising in the short term maturity bucket (0-90) days is positive, (91-181) negative (181-270) positive (271-365) negative in FY 2062/63. In FY 2063/64 short term maturity bucket (0-90) is positive and other all period's is negative. The CGAP or the interest rate sensitivity ratio to the total earning assets over the short term horizon i.e. up to one FY was highest with 9.1% in FY 2062/63 and lowest with 0.35% in FY 2063/64. The CGAP ratio to the earning assets over the long term horizon was highest with 47.04% in FY 2063/64 and lowest with 16.45% in 2062/63.

## 4.2 Major Findings

The major findings of the study on financial analysis of PFL in the frame of CAMEL are as follows.

- 4.2.1 Core capital ratio is above the NRB standard with maximum positive difference 5.75% in FY 2062/63 and minimum positive difference of 3.23% in FY 2059/60. PFL is able to maintain more than 6% above the NRB requirement in core capital ratio during the study period. In general it is found that the core capital adequacy ratio of PFL is adequate and sufficient.
- 4.2.2 The proportion of supplementary capital in the total capital fund is decreasing as compared to core capita. This means the PFL is increasing capital of permanent nature. The ratio of supplementary capital is with in NRB standard over the study period. The difference of supplementary capital ratio with NRB standard is maximum is 10.88% in FY 2062/63 and minimum is 6.83% in FY 2059/61.
- 4.2.3 Total capital adequacy ratio of PFL is maximum with 12.62% in FY 2062/63 and minimum of 9.63% in FY 2059/60. The total capital adequacy ratio is fluctuating from FY 059/60 to 2063/64. The CAR difference is positive only in two FYs 2061/62 and 2062/63. Except these two years the CAR difference is negative. So, PFL CAR is with in NRB standard only in two FY.
- 4.2.4 Assets composition of PFL like in every FIs largely proportion in the loans and investment over the study period. In the study period of five FYs, the average composition of cash & Bank balance , money at call, investment, loan and advances, fixed assets and other assets were 2.734%, 2.884%, 13.20%, 78.782%, 0.154% and 2.244% respectively. It reveals that movement of money at call observe in switch over in to investment during in the beginning two FYs.
- 4.2.5 The non-performing loans to total loans & advances ratio range from 6.44% in FY 2059/60 to 7.56% in FY 2063/64. The ratios were below the industrial average in every FY during the study period.
- 4.2.6 The loan loss ratio for the study period is in increasing trend. The ratio ranges from 4.83% in FY 2061/6 to 9.34% in FY 2063/64 with in average of 6.44%. The increasing trend of loan loss ratio indicates PFL's quality of loan assets is not getting better.



- 4.2.7 The total expenses to total revenue ratio is increasing trend. The range of ratio is 58.02% in FY 2059/60 to 90.22% in FY 2092/63. The slope of linear line is positive which indicates, that the ratio of PFL is increasing trend during the study period.
- 4.2.8 The average earning per employee of the study period was Rs 822.54 thousands. The slope of the observe earning per employee trend along with least square trend line is negative, which indicate the earning per employee is decreasing trend over the study period.
- 4.2.9 The return of equity ratio of the PFL is minimum of 3.51% in FY 2062/63 and maximum of 77.47% in FY 2060/61. The mean ratio of PFL is 49.89%. the ratio is fluctuating in downward trend. The slope of trend line determined by the least square method is negative. This indicates, the PFL ROE ratio is decreasing trend over the study period.
- 4.2.10 The return on assets mean ratio of PFL is 1.93%. The ratio is maximum of 3.14% in FY 2059/60 and minimum of 0.21% in FY 2059/63. The slope of least square trend line of ROA is negative. This indicates, PFL ROA ratio is decreasing trend.
- 4.2.11 Over the study period, the mean ratio of NIM of PFL is 5.29%. The slope of the trend line determined by least square trend line is negative which shows decreasing trend of NIM ratio during the study period.
- 4.2.12 The EPS of the PFL was fluctuates over the FYs of the study period. The EPS of PFL was ranged between RS 4.57 in FY 2062/63 to Rs 77.47 in FY 2060/61. The mean of EPs is Rs 50.1. The slope of linear line is negative, which indicates the EPS is decreasing trend.
- 4.2.13 The liquid assets to total deposit ratio of PFL during the period FY 2059/60 to FY 2063/64 are increasing trend. But the ratios are lower than industrial average. The difference is negative in all over the period.
- 4.2.14 NRB balance to total deposit ratio of PFL are fluctuating trend. The range of ratio is 1% in FY 2060/61 to 3.395 in FY 2062/63. The ratio of PFL is lower than NRB standard in all over the study period.
- 4.2.15 The volume of cash at vault ratio is less than the industry average in all over the study period. The observed cash in vault ratio was decreasing trend. The difference of cash in vault with industrial average is negative in all over the study period. It

shows, the PFL is not strictly following the directives issued by NRB in respect to balance must held as a vault.

4.2.16 FYS 2062/63 and 2063/64, net financial assets (RSA-RSL) re-pricing in the short term maturity bucket ranging from 0-90 days to 271-365 days is found negative and positive both in different periods. In the long term maturity bucket (>365 days) the gap is positive in both two years. The cumulative gap CGAP of RSA and RSL re-pricing in the short term maturing bucket (0-365) in both FYs is found negative and positive both in different periods. The interest rate sensitivity is higher for long term maturity than short term maturity bucket.

## **CHAPTER 5**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

This chapter includes three aspects of the study summary, conclusion and recommendations. The first aspect summarizing the whole study, the second draws the conclusion and last one forwards the recommendations.

#### **5.1 Summary**

This study was carried out as academic requirements for MBS degree on the topic of “Financial Performance Analysis of Pokhara Finance Limited in the Framework of CAMELS.” The study was started with the objective to find out the fact about financial performance of PFL. The analysis of financial statement is done to obtain a better insight in to firm’s position and performance. CAMELS is a technique of health checking of financial institutions. Financial institution’s financial soundness is judged on the basis of capital adequacy, asset quality, management quality, earning quality, liquidity position, and sensitivity to market risk. Almost, all the government Banks in Nepal are running at loss. Though almost private sector’s Banks are earning profit. It is very to difficult to call them sound if appraised from CAMELS approach. Thus, the interest was expressed to analyze the financial performance of current balance with carrying a case study of PFL in the framework of CAMELS.

FIs are introducing complex and innovative products, they are exposed to many risks and therefore more amplified as well as diversified the functions performed by the FI supervision department. A key product of supervision is a rating of the FI’s overall condition, commonly related to as a CAMELS rating. CAMELS rating system is used by the three federal banking supervisors [ The Federal Reserve, FDIC and Office of the controller of the Currency (OCC)] and other financial supervisory agencies to provide a convenient summary of FI conditions at the time of exam. Various studies have been conducted in the past on the financial analysis of commercial banks in the US and other regions were found done. In context of Nepalese banking environment, there are only few researchers conducted in the framework of CAMEL (Baral, 2005, Bhandari, 2006, Chanda. 2006, Koirala, 2007). The study analyze the level, trend and comparative analysis of capital adequacy, non-performing loans, loan loss provision, assets composition, management quality ratios, earning capacity, liquidity position and sensitivity to market risk components of the PFL during of 5 years period FY 2059/60 to FY 2063/64. during

the research the areas that formed part of the research review were functions of finance companies, concept of CAMELS rating system and component evaluation system, Basel capital accord, NRB guidelines. Besides these, review of research paper, work paper dissertations and related reports were reviewed.

The research was conducted with in the framework of descriptive and analytical research design. For the study purpose, Pokhara Finance Limited was chosen as a study unit applying convenience sampling as technique out of 78 finance companies. The required data and information were collected from secondary sources. In addition with this primary data also are used in this research work, which was collected, by using unstructured interview with senior staff in the PFL. Financial ratios, simple mathematical and statistical tools have applied to get the meaningful result of the collected data in this research work.

The analysis has been made to compare PFL's ratio with NRB standard, industrial average and analyze the trend of ratios. The capital adequacy ratios of the PFL are above than NRB standard only in two fiscal years during the study period. Which lead to conclude that the PFL is not running with adequate capital. The assets are mainly composed of loans and advances investment. The non-performing loans to loan ratios are below the industrial average and the international standard. The loan loss provision of the PFL is increasing trend. The earning per employee is in decreasing trend, which indicates management is not effective. The earning quality ratio like ROE, ROA NIM and EPS are decreasing trend. The cash in vault to total deposit ratio and NRB balance to total deposit ratio and liquid assts to total deposit ratios are below than the standard during the study period. This shows that, the PFL is not following NRB directives strictly. FYS 2062/63 and 2063/64, net financial assets (RSA-RSL) re-pricing in the short term maturity bucket ranging from 0-90 days to 271-365 days is found negative and positive both in different periods. In the long term maturity bucket (>365 days) the gap is positive in both two years. The cumulative gap CGAP of RSA and RSL re-pricing in the short term maturing bucket (0-365) in both FYs is found negative and positive both in different periods. The interest rate sensitivity is higher for long term maturity than short term maturity bucket.

## 5.2 Conclusions

Based on the finding the performance of PFL in the framework of CAMELS is concluded as under.

- 5.2.1 Core capital adequacy ratio measure in terms of core capital to total risk adjusted assets is as per NRB standard. It means the PFL is using adequate amount of internal sources or core capital in past five years looking to the fact, the PFL is financially sound and strong as internal financially.
- 5.2.2 Supplementary capital ratio of the PFL is with in the standard of NRB over the study period. Which supports to draw the conclusion of the supplementary capital of the PFL is sufficient capital of the PFL.
- 5.2.3 Capital adequacy ratios reveals that the PFL is not running with the adequate capital and the capital fond of PFL is not sound and sufficient. The total capital adequate ratios of PFL are with in boundary of PFL standard only in two FY during we study period.
- 5.2.4 The assets composition of the PFL during the study period reveals that movement of money at call has observed in switch over in to investment during the beginning two years. As it can be seen, the major part of total assets was held in from of loans and advances.
- 5.2.5 The non-performing loans and advances ratios are near in every FY during the study period. The ratios are not more fluctuating trend, it shows that the PFL is advance of non-performing loans and adopting the appropriate polices to manage this problem to increase the quality of assets.
- 5.2.6 The increasing trend of loan loss provision ratio indicates that the quality of loans becoming down grading year by year. It seems that amount of non-performing loans and possibility of default is increasing in future.
- 5.2.7 The increasing trend of total expenses to total revenues ratios shows that the PFL is gradually moving towards cost maximization.
- 5.2.8 The decreasing trend of earning per employee shows that the profit has not incurred when staff increased.
- 5.2.9 The decreasing trend of EPS shows that, the PFL management is not aware about stockholder's profit has not increased with compare shareholder equity increased.

- 5.2.10 The total assets of PFL is highly increasing trend, but net profit has not increased like total assets. Net profit is in decreasing trend. So ROA is in decreasing trend. It concluded that, the capability of management has not increased in to net earning.
- 5.2.11 The deceasing trend of net interest margin shows the spread between interest costs management has been not able to achieve by close control over the PFL's earning assets and the pursuit of the cheapest sources of funding. Stoll, the PFL has better net interest margin comparing with benchmarks.
- 5.2.12 The decreasing trend of EPS shows that the return flowing to the PFL's owner is decreasing. The tendency affect the strength of the share in the market is also decreasing.
- 5.2.13 The liquid funds to total deposit ratio is below the industrial average ratio. This shows that the PFL has not sufficient liquid fund. Lower liquid fund ratio implies the inefficient liquidity position of the company.
- 5.2.14 The NRB balance to total deposit ratio is below the NRB standard during the study period. This shows that the PFL is not maintain sufficient amount of balance in NRB.
- 5.2.15 The cash in vault to total deposit ratio is below the industrial average. This shows that ignoring the percentage of liquid fund with the PFL to make immediate payment to the depositors.
- 5.2.16 The sensitivity of net financial assets in a long term maturity bucket high and are therefore sensitivity to interest rate change risk than short term maturity bucket. Conversely, the PFL has not able to match the risk sensitivity liabilities in long then maturity bucket and therefore interest rate change has affect on them.

### **5.3 Recommendation**

Based on analysis and findings of the study the following recommendations can be made as suggestions to overcome the weakness in the existing financial performance of PFL.

1. Capital adequacy ratio of the PFL is not sufficient as per the NRB standard in three FY 2059/60, 2060/61and 2063/64 and the ratios are changing frequently during the study

period. So it is suggested to maintain stable capital adequacy ratios with in the boundary of NRB standard.

2. The non-performing loan ratio of PFL is in the boundary of industrial average, which is better for PFL. But the ratios are in increasing trend. So the PFL is suggested to control it's non-performing loan ratio or to reduce the non-performing loan ratio and to formulate a effective powerful loan recovery committee.
3. The loan loss provision to total loan and advances is increasing trend in ending year of the study period. So, the PFL needs to give attention to lower the proportion of loan loss provision by increasing the quality of assets by strengthening the credit appraisal and follow-up measures. The loan loss provision affects directly to the net profit. If loan loss provision is lees net profit will be high or vice versa. So, the company is suggested to reduce its loan loss provision ratios.
4. The total expenses to total revenue ratio is in increasing trend during the study period. So, it is recommended that to reduce its total expenses and to increase its total revenue in the coming year.
5. The earning per employee of the PFL is in decreasing trend. It is the bad efficient of management. So, it is recommended that, to increase its earning per employee for this the PFL should increase its profit by reducing the expenses and it should reduce its number of staff for good earning per employee.
6. The earning quality of PFL i.e. ROA and ROE are in decreasing trend. Which indicates the earning performance of PFL is not good. So, the PFL is suggested to increase its ROA and ROE. ROE and ROA directly affected by net profit. So, net profit has positive relation to ROA and ROE. So, the company should increase its net profit to increase its ROE and ROA.
7. The NIM of PFL is with in the benchmark. It is good for the company, but NIM is in decreasing trend. So, it is needed to increase its NIM ratio in the coming year.
8. The liquidity ratios of PFL are not with in the boundary of industrial average and NRB standards. i.e. (liquid fund to total deposit ratio and cash in vault to total deposit ratio) It indicates the neglect of PFL to NRB directives. So, it is recommended to maintain its all liquidity ratios with in the industrial average and NRB standard. Otherwise NRB may interfere to its management.

9. The data for sensitivity analysis is not sufficient. However, I have concluded that the PFL's long term net financial assets are highly sensitive to interest rate risk than short. As the short term earning assets is high. Since positive CGAP is beneficial when interest rates expected to rise and conversely negative CGAP I beneficial when interest rates are expected to fall, The PFL should minimize the mismatch of long term risk sensitive assets in order to minimize sensitivity to prevailing falling interest rates scenario.



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**APENDIX 1**  
**List of Finance Company in Nepal**

<b>S.N.</b>	<b>Names</b>	<b>Operation Date</b>	<b>Head Office</b>
1	Nepal housing development finance Co. Ltd.	1992/03/08	Kathmandu
2	Nepal Finance Co. Ltd.	1993/01/06	Kathmandu
3	NIDC Capital Markets Ltd	1993/03/11	Kathmandu
4	National Finance Co. Ltd	1993/05/07	Kathmandu
5	Annapurna Finance Co. Ltd	1993/09/30	Pokhara
6	Nepal Share Markets and Finance Ltd.	1993/10/19	Kathmandu
7	Peoples Finance Ltd.	1994/04/15	Kathmandu
8	Mercantile Finance Co. Ltd.	1994/11/10	Birgunj
9	Kathmandu Finance Ltd.	1994/11/10	Kathmandu
10	Himalaya Finance & Savings Co. Ltd.	1993/11/11	Kathmandu
11	Union Finance Co. Ltd.	1995/12/12	Kathmandu
12	Narayani Finance Ltd.	1995/03/08	Narayangadh
13	Gorkha Finance Ltd.	1995/03/12	Kathmandu
14	Paschimanchal Finance Co. Ltd.	1995/04/09	Butawal
15	Nepal housing and Merchant finance Co. Ltd	1995/04/11	Kathmandu
16	Universal Finance Co. Ltd.	1995/04/27	Kathmandu
17	Samjhana Finance Co. Ltd.	1995/05/03	Banepa
18	Goodwill Finance Ltd.	1995/05/16	Kathmandu
19	Sidhartha Finance Co. Ltd.	1995/05/25	Sidharthanagar
20	Shree Investment & Finance Co. Ltd.	1995/06/01	Kathmandu
21	Lumbini Finance & Leasing Co. Ltd.	1995/06/26	Kathmandu
22	Inbests Finance Ltd.	1995/07/17	Birgunj
23	Yeti Finance Co. Ltd	1995/07/23	Hetauda
24	International Leasing & Finance Co. Ltd.	1995/10/31	Kathmandu
25	Mahalaxmi Co. Ltd.	1995/11/26	Birgunj
26	Lalitpur Finance Co. Ltd.	1995/12/12	Lalitpur
27	Standard Finance Ltd.	1995/07/23	Kathmandu
28	Bhajuratna Finance & saving Co. Ltd.	1996/01/09	Kathmandu
29	United Finance Ltd.	1996/01/25	Kathmandu
30	General Finance Ltd.	1996/02/02	Kathmandu
31	Nepal Shreelanka Merchant Bank Ltd.	1996/02/04	Kathmandu
32	Merchant Finance Co. Ltd.	1996/01/02	Kathmandu
33	Alpic Everest Finance Ltd.	1996/07/16	Kathmandu
34	Nava Durga Finance Ltd.	1997/02/09	Bhaktapur
35	Janaki Finance Ltd.	1997/03/07	Janakpurdham

36	Pokhara Finance Ltd.	1997/03/16	Pokhara
37	Central Finance Ltd.	1997/01/14	Lalitpur
38	Premier Finance Ltd.	1997/05/08	Lalitpur
39	Arun Finance & Saving Co. Ltd	1997/08/17	Dharan
40	Multipurpose Finance Ltd.	1998/03/25	Rajbiraj
41	Butwal Finance Ltd.	1998/06/21	Butwal
42	Shrijana Finance Ltd.	1999/12/24	Rajbiraj
43	Om Finance Ltd.	2000/09/17	Pokhara
44	Cosmic Merchant Banking & Finance Ltd.	2002/02/01	Kathmandu
45	World Merchant Banking & Finance Ltd.	2001/08/10	Hetauda
46	Capital Merchant Banking & Finance Ltd.	2002/02/01	Kathmandu
47	Crystal Finance Ltd.	2002/02/14	Kathmandu
48	Royal Merchant Banking & Finance Ltd.	2002/02/14	Kathmandu
49	Guheshwaril Merchant Banking & Finance Ltd.	2002/06/13	Lalitpur
50	Patan Finance Ltd.	2002/06/23	Lalitpur
51	Kist Merchant Banking & Finance Ltd.	2003/02/21	Kathmandu
52	Fewa Finance Ltd.	2003/04/30	Pokhara
53	Everest Finance Ltd.	2003/07/02	Bhairahawa
54	Birgunj Finance Ltd.	2003/09/8	Birgunj
55	Prudential Bittiya Sanstha Ltd.	2003/06/15	Kathmandu
56	Investment Credit and Finance Ltd.	2003/06/15	Kathmandu
57	IME Financial Institution Ltd.	2005/08/29	Kathmandu
58	Sagarmatha Merchant Banking & Finance Ltd.	2005/08/29	Lalitpur
59	Shikhar Bittiya Sanstha Ltd.	2005/06/15	Kathmandu
60	Civil Merchant Bittiya Sanstha Ltd.	2005/09/18	Kathmandu
61	Prabhut Finance Ltd.	2006/03/08	Kathmandu
62	Imperial Financial Institution Ltd.	2006/03/08	Kathmandu
63	Kubar Merchant Bittiya Sanstha Ltd.	2006/03/24	Kathmandu
64	Nepal Express Finance Ltd.	2006/05/04	Butawal
65	Valley Finance Ltd.	2006/05/11	Kathmandu
66	Seti Bittiya Sanstha Ltd.	2006/06/07	Kailali
67	Hama Financial Institution Ltd.	2006/06/16	Kathmandu
68	Reliable Investment Bittiya Sanstha Ltd.	2006/09/06	Kathmandu
69	Lord Buddha Financial Institution Ltd.	2006/11/19	Kathmandu
70	Api Finance Ltd.	2007/04/25	Pokhara
71	Nameste Bittiya Sanstha Limited	2007/07/07	Dang
72	Kaski Finance Ltd.	2007/07/30	Pokhara
73	Suryadarshan Financial Institution Ltd.	2007/07/30	Kathmandu
74	Zenieth Merchant Financial Institution Ltd.	2007/10/18	Kathmandu
75	Unique Financial Institution Ltd.	2007/10/12	Kathmandu
76	Manjushree Financial Institution Ltd.	2007/10/15	Kathmandu
77	Swostik Merchant Finance Company	2007/10/16	Kathmandu
78	Subhalaxmi Finance Ltd.	2007/11/11	Kathmandu



Source: [www.nrb.org.com](http://www.nrb.org.com)

**APPENDIX 2**  
**POKHARA FINANCE LIMITED**  
**Comparative Balance Sheet**

Amount in thousands

Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64
<b>Capital and Liabilities</b>					
Share Capital	20000	20000	20000	52000	60000
Reserve Fund	27186.39	39572.44	53985.94	35813.27	49816.74
Borrowings					40000
Deposit Accounts	342892.3	493917.8	629069.9	763055.5	883222.3
Other Liabilities	42019.14	46780.04	51805.4	40114.96	46251.36
<b>Total Liabilities</b>	<b>432097.8</b>	<b>600270.3</b>	<b>754861.2</b>	<b>890983.7</b>	<b>1079290</b>
<b>Assets</b>					
Cash and Bank balance	5940.041	29866.47	26734.45	35127.12	18890.52
Money at Call				60905.32	60059.48
Investment	45034	45586	70050	140050	245050
Loan and Advances	357317.1	495538.8	628548	654747.5	748431.6
Fixed Assets	950.49	1110.1	1081.53	956.426	1179.184
Other Assets	22856.19	28168.94	28447.18	-802.626	5679.55
<b>Total Assets</b>	<b>432097.8</b>	<b>600270.3</b>	<b>754861.2</b>	<b>890983.7</b>	<b>1079290</b>

Source: PFL's Annual Reports

**APPENDIX 3**  
**POKHARA FINANCE LIMITED**  
**Comparative Profit and Loss Account**

Amount in thousands

Fiscal Year	2059/60	2060/61	2061/62	2062/63	2063/64
<b>Income</b>					
Interest income	52838.24	70133.5	73986.27	87213.43	107598.7
Commission & discount	145.63	166.211	56.666	83.236	38.987
Foreign exchange gain					
Non-operating income		2.75	74.885	931.899	8548.096
Other income	7696.076	7924.33	6819.589	5025.217	
<b>Total Income (A)</b>	<b>60679.94</b>	<b>78226.79</b>	<b>80937.41</b>	<b>93253.79</b>	<b>116185.8</b>
<b>Expenses</b>					
Interest Expenses	26190.46	39998.26	45686.74	53490.75	59787.11
staff Expenses	1479.572	1910.822	2379.97	2636.49	3228.738
Office Operating Exp.	2393.488	2700.687	2772.35	3421.483	3835.109

Provision for doubtful debt	5140.24	8906.582	4953.04	24045.79	21211.32
Provision for staff bonus	2104.86	2246.152	2285.937	878.115	2556.682
Income tax provision	6807.174	6638.875	7393.339	6953.73	11563.36
Other expenses	3003.77	331.943			
<b>Total Expenses (B)</b>	<b>47119.57</b>	<b>62733.32</b>	<b>65471.38</b>	<b>91426.35</b>	<b>102182.3</b>
<b>Net Profit (A-B)</b>	<b>13560.38</b>	<b>15493.46</b>	<b>15466.04</b>	<b>1827.432</b>	<b>14003.47</b>

Source: PFL's Annual Reports

#### APPENDIX 4

##### List of on Balance Sheet and off-Balance Sheet Asset and Weights

S.N.	Particulars	Percentage
<b>A</b>	<b>On-balance Sheet Assets</b>	
1	Cash Balance	0
2	Gold (Treasure)	0
3	Balance with NRB	0
4	Investment in Govt. Securities	0
5	Investment in NRB Bond	0
6	Fully Secured Loan Against Govt. Securities	0
7	Balance with Domestic Banks and FIs	20
8	Fully Secured FDR Loan Against FDR of Other Bank	20
9	Balance with Foreign Banks	20
10	Money at Call	20
11	Loan against Guarantee of Internationally Rated Bank	20
12	Other Investments in Internationally Bonus	20
13	Investments in shares Debentures and Bonus	100
14	Other Investments	100
15	Loan Advanced and Bills Purchase/Discounts	100
16	Fixed Assets	100
17	All Other Assets	100
<b>B</b>	<b>Off Balance Sheet</b>	
1	Bills Collections	0
2	Forward Foreign Exchange Contract	10
3	Letters of Credit with Maturity of Less than 6 months	20
4	Guarantee Provided against CG of at International Banks	20
5	Letters of Credit with Maturity of more than 6 Months	50
6	Bid Bond	50
7	Performance Bond	50
8	Advance Payment Guarantee	100
9	Other Guarantee	100
10	Irrevocable Loan Commitment	100
11	Contingent Liability in respect of income Tax	100
12	Financial Guarantee	100
13	All other Contingent Liabilities	100

<b>A+B</b>	<b>Total Risk Weight Assets</b>	
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Source: PFL's Annual Report, 2063/64

### APENDIX 5

#### Calculation of linear line of loan loss ratio by least square method

Year (X)	LLR (Y)	X <sup>2</sup>	XY
1	4.93	1	4.93
2	5.25	4	10.5
3	4.83	9	14.49
4	7.87	16	31.48
5	9.34	25	46.7
$\phi X$ X15	$\phi Y$ X32.22	$\phi X^2$ X55	$\phi XY$ X108.1

$$b = \frac{N\phi XY - Z\phi X\phi Y}{N\phi X^2 - Z(\phi X)^2}$$

$$a = \frac{\phi Y - Zb\phi X}{N}$$

$$= \frac{5 \times 108.1 - 15 \times 32.22}{5 \times 55 - (15)^2}$$

$$= \frac{32.22 - 1.144 \times 15}{5}$$

$$= 1.44$$

$$= 3.012$$

$$Y = 3.012 + 1.44x$$

### APENDIX 6

#### Calculation of linear line of total expenses to total revenue ratio

Year (X)	TER (Y)	X <sup>2</sup>	XY
1	58.02	1	58.02
2	68.41	4	136.82
3	68.93	9	206.79
4	90.22	16	360.88
5	75.79	25	378.95
$\phi X$ X15	$\phi Y$ X361.37	$\phi X^2$ X55	$\phi XY$ X1141.46

$$b = \frac{N\phi XY - Z\phi X\phi Y}{N\phi X^2 - Z(\phi X)^2}$$

$$a = \frac{\phi Y - Zb\phi X}{N}$$

$$= \frac{5 \times 1141.46 - 15 \times 361.37}{5 \times 55 - (15)^2} = \frac{361.37 - 5.735 \times 15}{5}$$

$$= 5.735 \qquad = 55.069$$

$$Y = 55.069 + 5.735x$$

### APPENDIX 7

Calculation linear line of earning per employee by using least square method

Year (X)	EPE (Y)	X <sup>2</sup>	XY
1	1043.08	1	1043.08
2	1032.87	4	2065.74
3	1031.07	9	3093.21
4	130.5	16	522
5	875.19	25	4375.95
$\Sigma X = 15$	$\Sigma Y = 4112.71$	$\Sigma X^2 = 55$	$\Sigma XY = 11099.98$

$$b = \frac{N \Sigma XY - \Sigma X \Sigma Y}{N \Sigma X^2 - (\Sigma X)^2} \qquad a = \frac{\Sigma Y - b \Sigma X}{N}$$

$$= \frac{5 \times 11099.98 - 15 \times 4112.71}{5 \times 55 - (15)^2} = \frac{4112.71 - 123.815 \times 15}{5}$$

$$= -123.815 \qquad = 1193.99$$

$$Y = 1193.99 - 123.815x$$

### APPENDIX 8

Calculation linear line of ROE by using least square method

Year (X)	ROE (Y)	X <sup>2</sup>	XY
1	67.8	1	67.8
2	77.47	4	154.94
3	77.33	9	231.99
4	3.51	16	14.04
5	23.34	25	116.7
$\Sigma X = 15$	$\Sigma Y = 249.45$	$\Sigma X^2 = 55$	$\Sigma XY = 585.47$

$$b = \frac{N \Sigma XY - \Sigma X \Sigma Y}{N \Sigma X^2 - (\Sigma X)^2} \qquad a = \frac{\Sigma Y - b \Sigma X}{N}$$

$$= \frac{5 \times 585.47 - 15 \times 249.45}{5 \times 55 - (15)^2} = \frac{249.45 - 16.288 \times 15}{5}$$

$$= -16.288 \qquad \qquad \qquad = 98.754$$

$$Y = 98.754 - 16.288x$$

### APENDIX 9

#### Calculation linear line of ROA by using least square method

Year (X)	ROA (Y)	X <sup>2</sup>	XY
1	3.14	1	3.14
2	2.58	4	5.16
3	2.45	9	7.35
4	0.21	16	0.84
5	1.3	25	6.5
$\sum X = 15$	$\sum Y = 9.68$	$\sum X^2 = 55$	$\sum XY = 22.99$

$$b = \frac{N \sum XY - \sum X \sum Y}{N \sum X^2 - (\sum X)^2} \qquad \qquad \qquad a = \frac{\sum Y - b \sum X}{N}$$

$$= \frac{5 \times 22.99 - 15 \times 9.68}{5 \times 55 - (15)^2} = \frac{9.68 - 0.605 \times 15}{5}$$

$$= -0.605 \qquad \qquad \qquad = 3.751$$

$$Y = 3.751 - 0.605x$$

### APENDIX 10

#### Calculation linear line of NIM by using least square method

Year (X)	NIM (Y)	X <sup>2</sup>	XY
1	7.05	1	7.05
2	5.51	4	11.02
3	4.16	9	12.48
4	4.32	16	17.28
5	5.39	25	26.95
$\sum X = 15$	$\sum Y = 26.43$	$\sum X^2 = 55$	$\sum XY = 74.78$

$$b = \frac{N\sum XY - \sum X \sum Y}{N\sum X^2 - (\sum X)^2} \qquad a = \frac{\sum Y - b\sum X}{N}$$

$$= \frac{5 \times 74.78 - 15 \times 26.43}{5 \times 55 - (15)^2} \qquad = \frac{26.43 - 16.182 \times 15}{5}$$

$$= -16.182 \qquad = 98.648$$

$$Y = 98.648 - 16.182X$$

### APPENDIX 11

#### Calculation linear line of EPS by using least square method

Year (X)	EPS (Y)	X <sup>2</sup>	XY
1	67.8	1	67.8
2	77.47	4	154.94
3	77.33	9	231.99
4	4.57	16	18.28
5	23.34	25	116.7
$\sum X = 15$	$\sum Y = 250.51$	$\sum X^2 = 55$	$\sum XY = 589.71$

$$b = \frac{N\sum XY - \sum X \sum Y}{N\sum X^2 - (\sum X)^2} \qquad a = \frac{\sum Y - b\sum X}{N}$$

$$= \frac{5 \times 589.71 - 15 \times 250.51}{5 \times 55 - (15)^2} \qquad = \frac{250.51 - 16.182 \times 15}{5}$$

$$= -16.182 \qquad = 98.648$$

$$Y = 98.648 - 16.182X$$