

CREDIT MANAGEMENT OF FINANCE COMPANIES IN NEPAL

(With reference to Kathmandu Finance Ltd. & Nepal Housing and Merchant Finance Ltd)

By:

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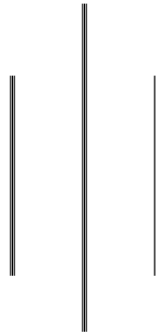
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RECOMMENDATION

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and found the thesis to be the original work of the student written according to the prescribed format. We recommend this thesis to be accepted as partial fulfillment of the requirements for **Master's Degree of Business Studies (MBS)**

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DECLARATION

I hereby declare that the work reported in this thesis entitled “**COMPARATIVE STUDY ABOUT CREDIT MANAGEMENT OF FINANCE COMPANIES OF NEPAL**” With reference to Kathmandu Finance Ltd & Nepal Housing and Merchant Finance Ltd. Submitted to Office of the Dean, Faculty of Management Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Master of Business Studies(MBS) under the supervision of Bishnu Gopal Khimbaja, Lecturer of Patan Multiple Campus.

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ABBREVIATIONS

| | |
|-------|--|
| A.D. | Anno Domini |
| ADB | Agricultural Development Bank |
| ATM | Automatic Trailer Machine |
| B.S. | Bikram Sambat (Abbreviation of Bikram Era) |
| CIT | Citizen Investment Trust |
| EBL | Everest Bank Limited |
| EPS | Earning Per Share |
| ERR | Expected Rate of Return |
| FY | Fiscal Year |
| GDP | Gross Domestic Product |
| KFL | Kathmandu Finance Limited |
| NABIL | Nabilp Bank Limited |
| NBL | Nepal Bank Limited |
| NHMF | Nepal Housing and Merchant Finance Limited |
| NIBL | Nepal Investment Bank Limited |
| NIDC | Nepal Industrial Development Corporation |
| NPA | Non-Performing Assets |
| NRB | Nepal Rastra Bank |
| SBI | Nepal State Bank of India Limited |
| SCBNL | Standard Chartered Bank Nepal Limited |
| SD | Standard Deviation |

CHAPTER– I

INTRODUCTION

1.1 Background of the Study

Nepal lies in south of Asia. This is landlocked country situated as heart of Asia. It has surrounded by India to the east, south, west, and by Tibet, an autonomous region of the People's Republic of China to the north. The country has a regular shape and structure from east to west. It is located between 26° 22' to 30° 27' north latitude and 80° 4' to 80° 12' longitude. The nearest seacoast is about 1,127 km. from its border. Nepal has an area of 1,47,181 sq.km of which 83% of the total land is occupied by the high mountains and rolling hills and the remaining 17% is occupied by the flat lands of Tarai. The major mean to locate between two large countries and this both countries are better than Nepal in many field like as, per capita income, literature rate, economic growth rate and Industrial sectors etc. its half century of experiments and efforts to raise the quality of life of public is defeated. Almost half of its population is lies under absolute poverty line, especially living in rural areas are derived of even basic needs and facilities like enough calories, pure drinking water sanitation facilities and road facilities etc.

Although now days, some of the basic human indicators like as, life expectancy, literacy, nutrition level etc. is being positively increasing. Nepal occupies among the nation to eliminate the massive poverty persisting in the country through gradual development of the total nation by and by providing and availing basic needs to poor people. Actually slow pace of developing of Nepal is due to nothing but landlocked position, poor resources mobilization and its utilization, weak infrastructure development and moreover unstable eco- political environment. Financial institutions are the organizations that channel the saving of government, business and individuals into loans or investments. Therefore, they position themselves between provider and users of fund. The role of financial institutions is to accumulate funds from various savers and lend those funds to borrowers. Thus, they actively participate in the money market and capital market. Banks, mutual funds, insurance companies etc are the example of financial institutions. They play key role in the smooth and efficient functioning of the economy.

In the field of financial institutions, bank is one of the most important financial intermediaries. They are the vital aspects of this sector, which plays the role of financial intermediation by canalizing the available resources from the lenders to borrowers. A bank, which can be defined as an institution, which is established, by law and deals with money and credit. The main business of a bank is to pool scattered idle deposits in the public and channel it for productive use. It collects deposits in the public and invests or lends to those who stand in need of money.

However, it has a broader scope and meaning. In other words, bank is a custodian of money received from the depositors. Hence, its responsibility towards the public is different from those who are involved in other types of trades and services. A bank can be a person, a company, or a firm, with a place of business and must be involved in credit creation. The business of a modern day, bank is not confined in borrowing deposits and lending advance only, it also performs a host of other financial activities which immensely contributes to achieve industrial and commercial progress of every country. Looking back at the history, there is much controversy as to the origin of the word 'Bank'. Some believe that, it was originated from Latin words "Bancus" meaning a bench. Similarly some believe that it is originated from the French word 'Banque' and some to Italian word 'Banca' all meaning a bench. It said that ancient money dealers used to deal on a bench. The history of modern banks are begins from 'Bank of Venice' established in 1157 A.D. as a first public enterprise followed by Bank of Barcelona established in 1401 A.D., Bank of Genoa established in 1407 A.D., Bank of Amsterdam established in 1603 and Bank of England in 1694 A.D. (Shrestha, 2006:2).The source of finance is the most essential element for the establishment and operation of any profit and non-profit institutions. Profit oriented institutions usually obtain these sources through ownership capital, public capital through the issues of shares and through financial institutions such as banks, in the form of credits, overdrafts etc Commercial banks, others banking institutions (OBIs), Non Bank Financial Institutions occupy important role in mobilizing financial resources. There are about 17 insurance companies including deposit insurance and Credit Guarantee Corporation, one Employee Provident Fund and one Citizen Investment Trust belong to this type of financial institutions. Apart from this, securities such as corporate shares debentures and bonds. In present day, various types of bank are established.

In any economy, the importance of financial sector in general and banking sector in particular cannot be underdetermined. It plays a pivotal role in the overall development of an economy. If there is insufficient banking and financial facilities in a country, definitely the economic development of that country becomes slow. Commercial banks are major financial institutions, which occupies quite important place in the framework of every economy as they provide capital for the development of industry, trade, & business and other resources by investing the saving collected as the deposits. The main objectives of the commercial banks are to earn profit through proper mobilization of resources. They provide different facilities to the people engaged in trade, commerce and industry. Commercial banks function in different ways such as accepting deposits, providing interest, formulation of capital, granting loan that help remove the deficiency of capital forming agency function. They also play an important role in credit creation. Commercial banks have its own role and contribution in the economic development. It is a source for economic development. They formulate sound investment policies, which eventually contribute to the economic growth of the country. The sound policies help

commercial banks to maximize investment and increase the profit maximization and social welfare. The banking sector has to play developmental role to boost the economy by adapting to the growth oriented investment policy and building up the financial structure for future economic development of the country. Commercial banks, by playing active role have changed the economic structure of the world.

Under the umbrella Act, Nepal Rastra Bank, the central bank of the nation, categories all the financial institutions in four classes A, B, C and D based on issued capital. Commercial banks are classified as 'A' similarly development banks 'B', finance companies 'C' and cooperatives and micro-finances are classified as 'D'. B class development banks can grow to A class commercial banks, similarly C class finance companies can upgrade to B or A, but D class financial institution cannot be upgraded. As per the oxford dictionary, the word finance company means "the company provides money specially hire purchase". Now the Umbrella Act facilitates the finance companies to grow providing enough financial services or widest range of financial services as banks according to their issued capital. The trend of establishing finance companies began in the year 1992. Nepal Housing Development Finance Co. Ltd. is the pioneer finance company in Nepal that is established in 08/03/1992 at Naya Baneshwor, Kathmandu. After one year, Nepal Finance and Savings Co. Ltd. established in 06/01/1993 at Kamaladi Kathmandu as the second finance company. Public excited to establish finance company in the year 1993, during which the number of new finance companies was 6. According to establishment date, NIDC Capital Markets Ltd. Kathmandu, National Finance Co. Ltd. Kathmandu, Annapurna Finance Co. Ltd. Chipledhunga, Pokhara are the third, fourth and fifth finance companies respectively. Similarly Nepal Share Markets Ltd., Peoples Finance Ltd., Himalaya Finance & Savings Co. Ltd., United Finance Ltd., Union Finance Co. Ltd., Mercantile Finance Co. Ltd., Kathmandu Finance Ltd. opened respectively.

Nepal Government policy of allowing finance company operating in Nepal is basically to encourage specially the retail banking local traditionally run commercial banks to enhance their bankable capacity through competition, efficiently modernization mechanism via computerization and prompt customer's service. The more developed financial systems of the world characteristically fall into three-parts. Central bank, commercial bank and other financial institutions. They are known as financial intermediaries. The banking business has its genesis from its function of lending. Lending is the most fundamental function of a bank. The importance of Lending in banking business is undoubtedly unchanged and remains vital as it was early days of this business. Lending has its different forms. It should be divided into fund based and non-fund based Lending. The fund based Lending can be further divided into cash credit, Overdrafts, demand and term credits, bills purchased and discounted and export packing

credit, project loan, etc. Similarly, non- fund based credit can be classified into documentary credit, guarantees and bill co- acceptance facility.

1.2 Introduction of Sample Organization under Study

Sampling may be defined as the selection of some part of an aggregate or totality based on which a judgment or inferences about the aggregate or totality is made. That is sampling is the selection of an aggregate of material to represent the whole aggregate. It is the process of obtaining information about an entire population by examining only a part of it. At an early stage of survey design, the researcher has to define exactly which groups of people units that he is interested. The full group of people or interested group or whole subject matter is called the target population. According as here the completely interested sector is, “Credit Management of Finance Company in Nepal” from this study field, the researcher has selected only two Financial Institutions, Kathmandu Finance Ltd. & Nepal Housing & Merchant Finance Ltd.

Kathmandu Finance Limited

Kathmandu Finance Limited is a recognized financial institution in Nepal, established in 2051 B.S. since seventeen years of its experienced in financial sector it has made a good reputation among existing others financial institutions. At starting it has implement the main objective has done lot of good deeds on the field depositors, lenders, and to investors. This company has able to pay dividend annually to its investors in different fiscal years. Its good will over the country among existing others. While depositors are regularly getting interest and other facilities through it. This institution is located at Dillibazar, Kathmandu and its listing date is 1995. Its shareholding parts are updating as Public 42.21% and Promoter 57.89%. Its Authorized capital is 240.0 million, Issued capital is 240.0 million and that it's, Paid up capital is 91.08 million.

This company is providing loan services on the following sectors.

- Housing loan
- Hire purchase loan
- Education/ Business loan
- Foreign Employment loan
- Loan against fixed deposit
- Loan in against share certificate
- Loan for land development

The deposit scheme of this finance ltd is fixed deposit: three months to six years, saving deposit: unlimited drawing scheme and special saving deposit: Interest high scheme from its

operation years. It has collected many good experiences in financial sectors, faced many challenges of high competitive market. It has done lot of good jobs for its investors, depositors, and shareholders. Although, it has no branch yet. It is a very popular established finance company among different existing companies.

Nepal Housing & Merchant Finance Company Ltd.

Nepal Housing & Merchant Finance Company Ltd. (Bittiya Sanstha) was incorporated in the year 1995 under the Finance Company Act of 1985 and Company Act of Nepal. It is one of the most popular finance institutions whose entire financial activities are direct inspection & supervision of Nepal Rastra Bank, the central bank of Nepal. Current days, this is facing many difficulties to operating strongly. The management body of this institution facing many challenges due to its competitors and global marketing and economic factors. NHMF is a leading financial institution in Nepal, servicing about more than six thousands clients annually. It has mobilized scattered capital resources. By looking its view, it wants to operate his activities in all over the country. It has made a different strong good will among other existing institutions.

It is also located in Dillibazar, Kathmandu. It has launched a branch in Himalayan Road, Biratnagar. It has established to maintain the economic welfare to the public. It is now provide many facilities, like as agriculture, industry, and commerce. It has 100.0 million Authorized capital, 22.0 million Issued capital, and 22.0 million Paid- up capital. Due to its better performance, this financial institution has become an established finance company.

1.3 Focus of the Study

In this study the researcher, want to analysis about credit management system of both institutions, which are facing more competition in global market structure. Most of economic factors are also affected these both institutions. At Present, the situation of Nepalese market is not so good for any kind of business, banking business is totally focus on lending business, which is naturally a risky business, as per present situation finance companies are playing the vital roles in the growth of Nepalese economy. Therefore, what kinds of precautions are taken by bank for its survival is very serious subject. As loan is the core area of the commercial banking. It plays the significance impact on the finance companies liquidity and profitability. But the most worry factor in banking industry is the total management of loan. Due to the excessive amount of non- performing assets in finance companies, there is the wide spread suspicion on the performance on the finance companies. Here, researcher has focused this resource mainly to highlight and examine the credit management of selected financial institutions ignoring other aspects of financial transactions of the institutions. To highlight the credit management the researcher use certain statistical tools, to verify the study. I.e. Karl

Pearson's coefficient of correlation(r), probable Error (PE), Coefficient of determination (R^2) & least square linear trend analysis.

1.4 Statement of the Problem

As financial institutions are becoming main sources of mobilizing the financial resources, the large amount of finance companies' funds are concentrated on total loan portfolio. Therefore, the success and failure of the finance company largely depend on the total credit risk management of finance companies. It is no debate that high profitable or successful organization can easily fulfill the every need of the organization and can serve the society. Nepal is a small country with small market economic condition of country is degrading due to different conflict in itself. Although some situation has been changed peace, process is going on. Overall, economic sectors either manufacturing or commercial have undergone heavy losses. However, the financial institutions are increasing regularly. Liquidity is maximum with the financial institutions are competing among themselves to advance credit to limited opportunity sectors. In order to analyze the credit management of finance company following research problems are formulated.

- Is the credit practices adopted by financial institutions is in good position?
- Is the Nepal Government's policy and regulation is good to every financial investors?
- Is central bank's observation is effective?
- What is the credit efficiency of financial institutions?
- Is there is any relationship between credit position and profitability situation?
- What is the status of credit portfolio of finance company in behavior?
- What is the credit management status of finance company in general?
- What are the total compositions of credit of finance company?
- What is the loan and loss provision status that has been implemented by finance companies?
- What are the effects on bank's total performance by the recent regulations relating to loan classification and loan loss provisioning?
- What is the status of non- performing assets of the finance companies?
- What is the effect that has been facing by non-performing assets of finance companies on their profitability and liquidity managements?

1.5 Objectives of the Study

The main objective of the study is to evaluate the credit management of finance companies in Nepal. In order to achieve the basic objective, the other objectives are also can defined as:

- To analyze the leading position of finance companies in Nepal.
- Comparatively study about credit management of Kathmandu Finance Ltd. & Nepal Housing & Merchant Finance Company Ltd.

- Analyze the financial position of KFL & NHMFL from the certain data.
- To determine the impact for deposit in liquidity and its effect on lending practices of finance companies.

1.6 Signification of the Study

There is no more study about credit management practice of Nepalese finance companies so that this study will give good ideas for interested parties. This study also provides information for management body of this both companies and other outsiders who want to collect necessary information and data. This study has proposed to measure the efficiency of both finance companies in their credit management procedures. This study adds new idea and findings about the concerned finance companies.

- This study no doubt will have importance to various groups but in particular is directed to a certain groups of people/organizations,
- This study will provide importance information to those who are planning to invest in these companies.
- The study will give a clear picture of financial position of the company under relating subject matter.
- This study will be importance to shareholders.
- This study is important for decision maker and policy maker.
- This study will be an important directive for secondary researcher and market controller.
- Importance to the management bodies of the finance companies for the evaluation of the performance.
- Importance to "outsiders" who are mainly the customers, financing agencies, stock exchanges etc.
- Importance to the government bodies or the policy makers such as the central bank
- Interested outside parties such as- investors, customers (depositors as well as credit takers), and competitors, personnel of the banks, stockbrokers, dealers, and market makers.
- The study will help public to know about the overall financial position of the KFL and NHMF.

Therefore, this study helps to identify its hidden strength and weakness finance companies as well as regarding financial and credit condition of finance companies. Likely, after the completion, this report will be kept in the library, which plays the role of reference to the students making the similar study in future.

1.7 Limitations of the Study

This is not a whole study as a field of management. This study cannot scarify the total financial position of companies of Nepal. This is only a part study of selected field. This study has been made for the partial fulfillment of the requirement of Master's Degree in Business Studies (M.B.S.) but not a comprehensive study. The study has conducted with certain limitations. The time is the one factor of limitations. Besides it, the scope of the study is limited within the financial institution. Some more limitations are follows:

- Only two finance companies are the concern of the study due to the certain time of activity.
- The study mainly based on available secondary data published by selected two financial companies.
- The study based on the period of five year (2063/064 to 2066/67) trend of concerned finance companies.
- The study is fully based on the student's limited financial resources within a limited period.
- The study is not a final study of the selected field. At last,
- Due to the lack of time, financial resources, area of study, and selected sample cannot cover all the dimensions and factors affecting to the field of management in any economy.

1.8 Organization of the Study

The researcher has organized this study in five chapters. This study is regulated to its format which is required according as faculty of management of Tribhuvan University of Nepal.

The first chapter is introduction chapter that contains the general background, statement of problem, objective of study, and organization of the study. The second chapter deals with the literature review part and conceptual framework, review related study and concluding remark of the review are also include in this chapter. The third chapter devoted to research methodology employed in this study. It deals with research design, nature and sources of data, selection of enterprises, methods of analysis and limitation of the study. The forth chapter concern with data presentation and analysis of secondary data and finally, the fifth chapter deals with Summary, Conclusions and recommendations of the study. And bibliography and appendix are also include at the end of the study.

CHAPTER– II

REVIEW OF LITERATURE

A literature review is a body of the text that aims to review the critical points of current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources, and as such, do not report any new or original experimental work. Most often associated with academic-oriented literature, such as theses, a literature review usually precedes a research proposal and results section. Its ultimate goal is to bring the reader up to date with current literature on a topic and forms the basis for another goal, such as future research that may be needed in the area. A well-structured literature review is characterized by a logical flow of ideas; current and relevant references with consistent, appropriate referencing style; proper use of terminology; and an unbiased and comprehensive view of the previous research on the topic. Review of the Literature is undertaken in order to find out what works have already been conducted in the area of the concerned research problem. It promotes greater understanding of the problem under study, provides comparative data to evaluate and interpret the significance of the findings, and provides fruitful sources of hypothesis and conceptual framework. It is the chapter where a researcher reviews the books, journals, magazines or any other types of studies, which are

related to his/her field of study. Research is a continuous process it never ends. The procedures and the findings may change but research continues. This chapter is focused on brief discussion about the abstract regarding the theories of capital credit risk management.

The purpose of reviewing the literature is to develop some expertise in one's area, to see what new contribution can be made and to receive some ideas for developing a research design. Thus, the previous studies cannot be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. The review of literature is a crucial aspect because it denotes planning of the study. The main purpose of literature review is to find out what works have been done in the area of the research problem under study and what has not been done in the field of books, reports, journals and research studies published by various institution unpublished dissertations submitted by master level students have been reviewed.

It is divided into two headings.

- Conceptual Review
- Review from Related Studies

2.1 Conceptual Review

The review of textbook and other reference materials such as books, newspaper, magazines have been included in this topic. Credit administration involves the creation and management of risk assets.

The Process of Lending and Its Impact. The process of lending takes in to consideration about the people and system required for the evaluation and approval of loan requests, negotiation of terms, documentation, disbursement, administration of outstanding loans and workouts, knowledge of the process and awareness of its strength and weakness are important in setting objectives and goals for lending activities and for allocating available funds to various lending functions such as commercial, installment and mortgage portfolios (Johnson,1994:132).

Monetary policy and deposit mobilization in Nepal has concluded that mobilization of the domestic saving is one of the prime objectives of the monetary policy in Nepal & commercial banks are the most active financial intermediary for generating resources in the form of deposit of private sector and providing credit to the investors in different sectors of the economy. To say about Banking Management, that in banking sector or transaction, an unavoidable news of loan management and its methodology is regarded very important. Under this management, many subject matters like the policy of loan flow, the documents of loan flow, loan administration, audit of loan, the condition of loan flow the provision of security, this management plays a great role in healthy competitive activities. It is very important to be

reminded that most of the bank failures in the world are due to shrinkage in the value of loan and advance. Hence, risk of non-payment of loan is known as credit risk default risk (Khan and Jain, 2007:14.5).

Portfolio & Credit Risk Management analysis that Portfolio management helps to minimize or manage the credit risks by spreading over the risk to various portfolios. This method of managing credit risk is guided by the saying do not put all the eggs in a single basket (Bhandari. M. 2003: 170).

2.1.1 Function and Role of Financial Institutions

The recent economic difficulties in Southeast Asian economies are often linked to the financial sector in these countries. The business and popular press around the world are replete with stories connecting the economic crisis with difficulties in the financial sectors in these economies. The connection between the troubled banking sector and the economic slowdown is especially stressed. Asian economies that have been less impacted by the economic crisis, for example China, are often characterized as having more stable financial institutions than their neighbor. Yet this is not the first time “financial difficulties” have been linked with poor macroeconomic performance. Many today believe the Great Depression of the 1930s was made much more severe by problems in the banking sector specifically and financial markets inefficiencies in general. More recently the dramatic economic slowdown in the state of Texas in the United States are often linked to the banking and savings and loan crisis that gripped the state at the same time. This raises the question, what is the link between financial institutions and the macroeconomic performance of an economy? Economists hold dramatically different views regarding this question. From a much earlier time, argued that an efficient financial system greatly helped a nation’s economy to grow. As Ross Levine has pointed out it was Schumpeter’s contention that well-functioning banks spurred technological innovation by offering funding to entrepreneurs that have the best chances of successfully implementing innovative products and production processes. More economists, which are recent have more skeptical about the role of the financial sector in economic growth (Bagehot & Schumpeter, 1873:191).

The writer asserted that economic growth creates (emphasis added) demand for financial instruments and that where enterprise leads finance follows. Robert Lucas (1988) has also dismissed the finance-economic growth relationship stating that economists “badly over-stress” the role financial factors play in economic growth. However in recent years thanks to the work of Ross Levine (1997, 1998), Robert King (King and Levine 1993a, 1993b, 1993c) and others (Pagano 1993), economists are again reexamining the role financial markets play in economic growth. On the theoretical side, complex models have been developed to illustrate the many

channels through which the development of financial markets affect and are affected by economic growth. These channels include the facilitation of trading hedging, diversifying, and pooling of risk; the efficient allocation of resources; the monitoring of managers and exerting corporate control; the mobilization of savings; and the facilitation of the exchange of goods and services (Robinson, 1952:186).

On the empirical side a growing body of studies at the firm level, industry-level, country-level and cross-country comparisons have demonstrated the strong link between the financial sector and economic growth. King and Levine's (1993a, 1993b, and 1993c) research has shown that level of financial depth (defined as the ratio of liquid assets to GDP) does in fact help to predict economic growth. Other work by Levine (1997, 1998) has shown that financial intermediary development does positively influence economic growth, these results are shown to be robust, that is the relationships still hold when other factors that are known to influence economic growth are held constant. In many ways, the current research has opened as many new questions as it has attempted to answer. On the theoretical side, questions still exist on how and why do financial markets and institutions evolve? Why are financial markets at different levels of development in different markets?

This research has also raised a number of very interesting public policy questions. Such as: under what legal environment do financial institutions development more rapidly? Financial regulation -- how are countries' financial systems regulated and supervised, how can these be quantified, and to what extent do the differences matter. What is role of regulation in encouraging financial market development? What impacts both positive and negative will the recent bailout of financial institutions and financial markets have on the long run development of financial markets? The Researcher would like to turn his attention to one of these issues that he finds most intriguing: why do financial markets develop at different rates in different economies? That is, why do financial institutions tend to cluster in high-income areas or economies and low-income areas seem to suffer from a lack of financial institutions? A related question is; do financial markets drive economic growth or does economic growth drive the creation of financial market and institutions?

Why do financial markets develop at different rates?

According as, past idea, centers on the concept of a poverty trap in the provision of financial instruments and in the development of financial institutions. One illustration of a poverty trap is the trap an economy can find itself in terms of human capital development, if learning has positive spillovers. Let an example can shown, look at how a poverty trap in human capital works. It will start with a counter example. That is, first let, to look at how human capital has a positive spillover effect. Suppose that knowledge and learning have positive spillover effects in

casual conversations. That is, if members of our society invest in human capital attainment by reading, learning, studying, etc., then there will be a sharing of this knowledge in casual conversation. Thus, it will learn from one people to another people & also to next people or Researcher in systematic manner. Therefore there will be a positive incentive for me to invest in human capital attainment since that will allow to gain more from (and contribute more to) our conversations. Likewise, it will have an incentive to invest in your level of human capital as well. Thus, throughout the entire economy, there will be incentives for people to invest in their human capital attainment, and thus the societal level of human capital will increase.

To review, the researcher have looked at the relationship between institutions and long run economic growth. This growing field of research may offer us a new insight into the dynamics of economic growth within and among various economies. This mean presentation here today have tried to motivate a new approach to modeling the role of financial institutions in long run economic growth by suggesting a poverty trap may exist in economies with low levels of financial institutions.

After that, the main functions or role of Financial Institutions can be defined as:

- Professional management and Efficiency
- Investment Diversification
- Benefits of Large Scale Investment
- Large Number and Experience
- Indivisibility

2.1.2 Importance of financial institutions for an Economy of Globalization

Financial institutions are the businesses and organizations involved in the collection and distribution of money. They develop the methods and procedures that allow them to collect money from depositors and lend it out to borrowers. They develop the financial securities and provide the financial markets where lenders, borrowers, investors, speculators, and hedgers can exchange money for future payments in the form of interest, for ownership interests, such as stocks, for the payment of future contingent claims, such as with options and derivatives, and for sharing risk, such as the pooling of insurance premiums for financial protection. This pooled money is then given as loans or as an investment to businesses and other organizations to finance specific projects or to provide financing for other needs.

Businesses make money by supplying products and services that are desirable, and the more desirable the product or service, the more money that the business can earn, and, thus, the greater are the returns on the investments in the business. In their desire to earn greater returns, financial institutions help to funnel money to the most successful businesses, which allows them to grow faster and supply even more of the desirable goods and services. This is how

financial institutions greatly contribute to the efficient allocation of economic resources. Hence, financial institutions are also financial intermediaries. Financial intermediaries profit by earning higher returns on their investments than they pay for their sources of money. The assets of a financial intermediary are the loans, stocks, bonds, and real estate that are the company's investments and its liabilities are its obligations to its customers, which includes deposits, insurance policies, and pension payouts.

Depository Institutions

Depository institutions, such as banks and credit unions, collect money from depositors and lend the money out to borrowers. Lending has risks, because of information asymmetry between the lender and the borrower. Borrowers know a lot more about their ability and willingness to pay than lenders do, which is why it is risky for people to lend out money directly to others. Depository institutions mitigate this risk by assessing the creditworthiness of borrowers for possible loans, monitoring the borrowers after the loan, and collecting on delinquent accounts. They also convert the short-time deposits that most savers prefer to the long-term loans that businesses desire.

Another major service offered by depository institutions is a convenient payment system. Money can be transferred by check, electronic funds transfer, or by credit or debit card. This eliminates the need for people to have a large amount of cash on hand, which is very risky, and it provides a proof of payment. International banks provide foreign exchange services, converting the currency of one country for those of another. They also provide exporters and importers with services, such as letters of credit, that facilitate international trade.

Non depository Institutions

Non-depository institutions collect money as premiums, contributions, or by selling securities for specific purposes, and then invest the money for higher returns. Non-depository institutions include insurance companies, pension funds, securities firms, and finance companies. Insurance companies pool the premiums of many people and businesses to protect each from financial disaster resulting from rare events. Pension funds collect contributions from workers and businesses to invest so that workers can retire with an income provided from the invested funds.

Businesses, labor unions, or governments for their employees set up pension funds. Employers and employees contribute from payrolls into the fund. The fund manager then invests the money to earn a return that will allow it to pay out benefits according to a prescribed schedule based on actuarial estimates. Contributions to the fund and the returns earned by the fund are usually tax deferred. Securities firms, such as stockbrokers or future merchant commissions, provide the institutional foundation that allows investors to invest their money in the various

financial markets by providing current market information, and allowing the investors to select market or limit orders to buy or sell securities through their computer system. Securities firms also provide clearing and settlement systems so that investors can easily clear and settle trades. Finance companies get money by selling securities, mostly commercial paper, in the money market to other businesses, including banks, and then lend the money out to individuals or businesses at a higher interest rate than what they pay on their securities. There are three basic types of finance companies. Small loan companies (aka direct loan companies) lend money to individuals. Sales finance companies (aka acceptance companies) buy retail and wholesale commercial paper of consumer and capital goods dealers. Commercial finance companies (aka commercial credit companies) loan money to manufacturers and wholesalers that is secured by the borrowers' account receivables, inventory, or equipment. Some financial institutions, such as financial supermarkets, offer several types of products and services that traditionally have been served by separate financial institutions.

Financial Institution Regulation

A characteristic of all financial institutions that accept public funds is that they are heavily regulated, not only because of their central importance to modern economies, but because most people would be unwilling to put their money in a financial institution if they did not believe it was safe to do so. If people kept their money instead of saving or investing it, then the allocation of economic resources would be much less efficient. In the United States, financial institutions are regulated by government agencies that promulgate rules and regulations for the industry, and who monitor those institutions for compliance. The Federal Reserve regulates depository institutions and the Federal Deposit Insurance Corporation (FDIC) insures the savings of depositors for up to a certain amount, depending on the type of account. The Securities and Exchange Commission (SEC) regulates the securities industry and the Securities Investor Protection Corporation (SIPC) insures both securities and cash in customers' accounts of securities firms within an overall limit of \$500,000 and a limit of \$100,000 for cash. The Pension Benefit Guaranty Corporation (PBGC) guarantees basic pension funds of companies that become insolvent and takes steps to correct serious underfunding of pension liabilities. State law mostly regulates insurance companies and guarantees by the states vary widely. All states have solvency laws to maintain the solvency of its insurers by requiring minimum amounts of capital and guaranty funds to help failing insurers, or, to at least maintain coverage and pay the claims of customers of insolvent insurers.

Above study should apply as the following importance of financial institutions for any economy or global market

- Financial Intermediaries
- Mobilization of Resources

- Inducement of Investment
- Development of Professionalism
- Development of Money Capital Market
- Economic Expansion
- Long- term Investment
- Help to Government for Economic Development
- Help for Creation of Employment

2.1.3 General Concept of Credit Management

Concept of Credit

Credit is the amount of money lent by the creditor (bank) to the borrower (customers) either based on security or without security. Sum of the money lent by a bank, is known as credit (Oxford Advanced Learners Dictionary 1992:279).

Credit and advances is an important item on the asset side of the balance sheet of a commercial bank. Bank earns interest on credits and advances, which is one of the major sources of income for banks. Bank prepares credit portfolio, otherwise it will not only add bad debts but also affect profitability adversely (Varshney & Swaroop, 1994:205).

Credit is financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return for an obligation of repay on specified date on demand. Banks generally grants credit on four ways.

- Overdraft
- Cash Credit
- Direct Credit
- Discounting of Bills

Overdraft

It denotes the excess amount withdraw over their deposits.

Cash Credit

The credit is not given directly in cash but deposit account is being opened on the name of credit taker and the amount credited to that account. In this way, every credit creates deposit.

Term Credit

It refers to money lent in lump sum to the borrowers. It is principal form of medium term debt financing having maturities of 1 to 8 years. Barely and Myers urge that bank credits with

maturities exceeding 1 years are called term credits. The firm agrees to pay interest based on the bank's prime rate and to repay principal in the regular installments. Special patterns of principal payments over time can be negotiated to meet the firm's special needs.

Working Capital Credit

Working capital denotes the difference between current assets and current liabilities. It is granted to the customers to meet their working capital gap for supporting production process. A natural process develops in funds moving through the cycle are generated to repay a working capital credit.

Hire-purchase Financing (Installment Credit)

Hire- purchase credits are characterized by periodic repayment of principal and interest over the maturity of the credit. Hirer agrees to take the goods on hire at a stated rental including their repayment of principal as well as interest with an option to purchase. A recent survey of commercial banks indicates those bank are planning to offer installment credits on a variable rate basis. It can be secured and unsecured as well as direct and indirect installment credit.

Housing Credit (Real Estate Credit)

Financial institutions also extend housing credit to their customers. It is different types, such as: residential building, commercial complex, construction of warehouse etc. It is given to those who have regular income or can earn revenue from housing project itself.

Project Credit

Project Credit is granted to the customers as per project viability. The borrowers have to invest certain proportion to the project from their equity and the rest will be financed as project credit. Construction credit is short- term credits made to develops for completing proposed projects. Maturities on construction credits range from 12 months to as long as 4 to 5 years, depending on the size of the specific project (Johnson, 1940: 242).

The basic guiding principal involved in disbursement policy is to advance funds corresponding to the completion stage of the project. Hence, what percent of the credit will be disbursed at which stage of completion must be spelled in disbursement policy? Term of credit needed for project fall under it.

Consortium Credit

No single financial institution grant credit to the project due to single borrower limit or other reasons and two or more such institution may consent to grant credit facility to the project among them. Financiers bank equal (or Likely) charge on the project's assets.

Credit cards and Revolving lines of Credit

Banks are increasingly utilizing charge cards and revolving lines of credit to make unsecured consumer credit. Revolving credit line lowers the cost of making credit since operating and processing cost are reduced. Due to standardization, centralized, department processes revolving credits resulting reduction on administrative cost. Continued borrowing arrangement enhances cost advantages. Once the credit line is established, the customer can borrow and repay according to his needs and the bank can provide the fund to the customer at lower cost. Charge cards and credit lines tied to demand deposit accounts are the two most common revolving credit agreements. It can be further divided into credit cards, automatic overdrafts lines and large credit lines (Bhattarai, 2006:96).

Off- Balance Sheet Transaction

In fact, bank guarantee and letter of credit refer to off balance sheet transactions of financial institution. It is also known as contingent liability. Contingent liability pinpoints the liability, which may or may not arise during the happening of certain event. Footnotes are kept as reference to them instead of recording in the books of accounts. It is non-funded based remunerative facilities but more risky than the funded until adequate collateral are not taken. Lets its two varieties be described separately.

Bank Guarantee

It is used for the sake of the customers in favor of the other party (beneficiary) up to the approved limit. Generally, a certain percent amount is taken as margin from the customer and the customer's margin account is credited.

Letter of credit (L/C)

It is issued on behalf of the customer (importer) in favor of the exporter (Seller) for the import of goods and services stating to pay certain sum of money on the submission of certain documents complying the stipulated terms and conditions as per as the agreement of L/ C . It is also known as importers letter of credit since the bank of importer do not open separate L/C for the trade of sum commodities.

Credit Risk

The credit risk is the potential financial loss resulting from the failure of customers to honor fully the terms of a loan or contract. On the other hand, the market risk includes balance sheet

risk and trading risk such as potential risk to earning and capital resulting from changes in interest rate, liquidity conditions, impact of foreign exchange rate fluctuations etc. Meanwhile Operating risk arise from the natural disasters, errors in processing and settlement of transactions safeguarding of assets, system failure, fraud and forgery. Against the above backdrops, the main attributes of various risks that can be faced by a banker while evaluating a loan proposal may be expressed by the following functional relationship (Shrestha, S.R. 2007: 112).

$$\text{Credit Risk (CR)} = f(\text{BR, FR, Dr, CR, Fr})$$

Where,

F = function of

BR = Business\operation risk

FR = Financial risk

DR = Default/settlement risk

FR = Fiduciary risk

It is not practically possible to assign a particular coefficient to each of the risk factors stated above as the degree of each varies from case to case.

2.1.4 Some Important Terms

In this section of the study, efforts have been made to clarify the meaning of some important terms that are frequently used. They are presented below:

Deposits: - deposits mean the amount deposited in a current saving or fixed account of a bank or a financial institution. Deposit is the main sources of a fund that bank usually uses for the generation of profit. Therefore, the efficiency of the banks depends on its ability to attract deposits. Deposit being the borrowed amount from the depositors or from general public, it constitutes the liability of bank. The deposits of a bank are affected by the various factors. They are as follows:

- Types of customers
- Physical facilities of Bank or Finance Company
- Management accessibility of customers
- Interest rate paid to deposits
- Types and ranges of services offered by the Institution
- The prevailing economic condition of the Country

Loan and Advances: - This is the primary sources of income and most profitable assets of a bank. A bank is always willing to lend as more as possible since they constitute the larger part

of revenue. But bank has to be more careful while providing loans and advances since they may not be realized at short period of time. Sometimes they may turn into bad debts. About Loan and Advances in his book, Fund borrowed from banks are much cheaper than borrowed from unorganized moneylenders. Loans and advances are provided against the personal security of the borrower or against the security of the immovable and moveable properties. Banks provide loans in various forms: overdraft, cash credit, direct loans and discounting bills of exchange. In addition to this, some portion of loan and advances and overdraft includes that amount which is given to the staff of the bank as house loan, vehicle loan, personal loan and other (Bhattarai, R. 2007:98).

Investment on Government Securities, Shares and Debentures: - Though a commercial bank can earn interest and dividend from the investment on government securities, shares and debentures, it is not the major portion of income. But it is treated as a secondary source of banking business.

Investment on Other Company's Shares and Debentures: - Commercial banks invest their excess funds to the shares and debentures of the other company. They generally do so when there is excess of funds than required and there is no alternative opportunity to make investment in the profitable sector. Now a day's commercial banks of Nepal have purchased shares and debenture of Regional Development Bank, NIDC and other Development Banks etc.

Other Uses of Funds: - Commercial banks must maintain the minimum balance with NRB i.e. 6 % for fixed deposits and 8 % for each of current and saving deposit account in local currency. Similarly 3 % cash balance of local cash balance of all local currency accounts must be maintained in the vault of the bank. Again a part of the funds should be used for bank balance in foreign bank and to purchase fixed assets like land, buildings, furniture, computers, stationery etc.

Off - Balance Sheet Activities: - Off-balance sheet activities cover the contingent liabilities. These activities are not recognized as assets and liabilities in balance sheet. They are LC, Guarantee, Commission, and Bills for collection etc. These activities are very important, as they are the good source of profit to the bank though they have risk.

There is no single important part of sound management than the methods which bank used to manage risk. Banking business is very risky business, there are several types of risk prevailed in the banking industry, but three major area of risk are widely recognized. i.e., credit risk, market risk and operating risk.

2.1.5 Types of Risk Faced by Financial Institutions

Credit Risk

The credit risk is the potential financial loss resulting from the failure of customers to honor fully the terms of a loan or contract. On the other hand, the market risk includes balance sheet risk and trading risk such as potential risk to earning and capital resulting from changes in interest rate, liquidity conditions, impact of foreign exchange rate fluctuations etc. Meanwhile Operating risks arise from the natural disasters, errors in processing and settlement of transactions safeguarding of assets, system failure, fraud and forgery. Against the above backdrops, the main attributes of various risks that can be faced by a banker while evaluating a loan proposal may be expressed by the following functional relationship.

Business or Operational Risk

It is defined as the potential volatility of the performance of the unit concerned, caused by the very nature and type of business operations involved. The board elements of such risk can be classified as.

| Critical Risk | Operational Risk |
|-----------------|------------------------------|
| Production Risk | Marketing Risk |
| Labor Risk | Selling and Advertising Risk |
| Machinery Risk | Competitive Risk |

However, the most important component of this category is the macro system risk associated with the industry one with self. The operational economic environment, in general and the fiscal and monetary policies of the government provide as additional dimension to the risk structure.

Financial Risk

This risk measures the relative stability of the unit in response to change in its own capital structure, i.e. debt-equity base or exogenous factors in terms of generation of profit. In other words, financial risk depicts whether or not the company would be in a position to generate sufficient profit, after paying debt interest, to finance satisfactory dividend besides plugging back adequate quantum into the business.

Default or Settlement Risk

The term “Default” mean any failure to meet all or some terms of the lending agreement. Hence, this risk measures the probability of adherence of the borrower to the terms and conditions of the agreement, as it will ultimately be reflected in the repayment capability. This risk indicated the propensity and ability of the entrepreneur to pay back the bank loan.

Cost Base Risk

This risk indicated the degree of income or profit generated within a unit from a given cost structure. It is a fact as the business develops, cost incurred on various items also increases, and giving rise to incremental income. A developing concern would have incremental income, which shall be more than incremental cost or expenditure. A high value of non- performing assets may not lead to increase profit to the unit.

Fiduciary Risk

This risk refers to the eventuality of losses arise out of off balance sheet financial guarantee and other contingent liabilities (e.g. guarantee etc.) of associates substantial risk. Careful analysis is required at the time of credit appraisal.

Market Risk

Market risk is the risk incurred in the trading of assets and liabilities due to changes in interest rates, exchange rates, and other asset prices. So, Market risk is exposure to the uncertain market value of the firm's asset. Major factors affecting Market risk are:

- Liquidity Risk
- Interest Risk
- Foreign Exchange Risk
- Operational Risk

Liquidity Risk

Liquidity risk arises whenever financial institutions' liability holders, such as depositors or insurance policyholders, demand immediate cash for their financial claims. When liability holders demand cash immediately - that is, put their financial claims back to the must either borrow additional funds or sell off assets to meet the demand for the withdrawal of funds. An institution is said to have liquidity if it can either easily meet its liability holder's demand for cash because it has cash on hand or can otherwise raise or borrow cash. In banking sector, Liquidity risk is created when banks hold different sizes of assets and liabilities. Extreme illiquid assets in bank may result bankruptcy where as excess liquid asset may carry interest rate risk over the period. As it is fatal risk, prudent liquidity management is the primary function of banking sector. Liquidity management is also to make sure that expected shortfall amounts are funded at a reasonable cost, ensure excess fund are invested properly with reasonable returns and without carrying any interest rate risk to the bank

Interest Rate Risk

Interest Rate Risk is the incurred by a financial institution when the maturities of its assets and liabilities are mismatched. Interest Rate Risk is probability of decline of earnings, due to the adverse movement of interest rates in various markets. The applicable interest earned on assets and liabilities and hence net interest margin is the function of market variables and it may get changed overnight or over a period of time according to the market situation. Changes in the interest rate can significantly alter net interest income depending on the mismatch of assets and liabilities held by the bank. Changes in interest rates also the market value of bank's equity (Rabindra Bhattarai, 2007: 114).

Foreign Exchange Risk

Foreign Exchange Risk is the risk that exchange rate changes can affect the value of a bank's assets and liabilities denominated in foreign currencies. The bank is also exposed to foreign exchange risk, which arises from the maturity mismatching of foreign currency positions. In the foreign exchange business, bank also faces the risk of default risk of the counter parties or settlement risk. While such type of risk crystallization will not cause principal loss, banks may have to undertake fresh transaction in the cash/spot market to replace the failed transactions. Thus, the bank may incur replacement cost, which depends upon the currency rate movements.

Operational Risk

Operational Risk is associated with problems of accurately processing, setting and taking or making delivery to trades in exchange for cash. It also arises in record keeping, processing system failures and compliance with various regulations. The Basel committee on Banking Supervision,

We can define the operational risk as “The risk of loss resulting from inadequate or failed internal processes, people and system or from external events”. Operational Risk arises from inadequate control systems operational problem and breaches in internal controls, fraud and unforeseen catastrophes leading to unexpected losses for bank. Many of the operational-risk-related functions such as regulatory compliance, finance management, frauds, IT, legal and insurance are carried out by the staff and thus human resources itself becomes a cause for operational risk.

Yield risk

It is the risk that financial institution's assets may generate less income than expense generated by its liabilities.

Ownership/ Management Risk

The risk that shareholders directors or senior management be unfit for their respective positions or dishonest

Purchasing Power Risk

It is the variability of return an investor suffers because of inflation. Economists measure the rate of inflation by using a price index. The percentage change in the consumer's price index is a widely followed measure of the rate of inflation.

Bull-Bear Market Risk

Bull bear risk arise from the variability in market return resulting from alternating bull and bear market forces. When a security index arises consistently from a low point, called a trough, for a period, this upward trend is called a bull market. The bull market ends when the market Index reached a peak and starts a downward trend. The periods during which the market declined to the next trough is called a bear market.

Default Risk

Default risk is that portion of an investments total risk that results from changed in the financial integrity of the investment.

Call Ability Risk

That portion of a securities total variability of return that derives from the possibility that the issue may be called is the call ability risk. Call ability risk commands a risk premium that comes in the form of a slightly higher than average rate of return. This additional return should increase as the risk that the issue would be called increases.

Convertibility Risk

Convertibility risk is that portion of the total variability of return from a convertible preferred stock that reflects the possibility that the investment may be converted into the issuer's common stock at a time harmful to the investor's best interests.

Political Risk

Political risk arises from the exploitation of a politically weak group for the benefit of a politically strong group, with the efforts of various groups to improve their relative positions increasing the variability of return from the affected assets.

Industry Risk

An industry may be viewed as a group of companies that compete with each other to market a homogeneous product. Industry risk is that portion of an investments total variability of return

caused by events that affect the products and firms that make up an industry. The stage of the industry's life cycle, international tariffs and or quotas on the products produced by an industry, product or industry related taxes, industry wide labor union problems, environmental restrictions. Raw materials availability and similar factors interact and affect all the firms in an industry simultaneously (Bhattarai, 2006:108).

2.1.6 Credit Risk Management

Financial environment is dynamic. In this dynamic financial environment fluctuation in interest rates, exchange rates, commodity, and real estate prices are not something new. These fluctuations in economic and financial variables weaken the corporate strategies and performance of bank. Thus, it is necessary that banks have a framework of risk management. Effective credit risk management allows a finance company to reduce risk and potential non-performing assets. Once finance companies understand their risks and their costs, they will be able to determine their most profitable business and thus price product according to the risks. Therefore, the finance companies must have an explicit credit risk strategy by organizational changes, risk measurement techniques and fresh credit processes and systems.

Credit risk management should focus on five areas.

- Credit sanctioning and monitoring process.
- Approach to collateral
- Credit risks arise from new business opportunities.
- Credit exposures relative to capital or total advances.
- Concentration on correlated risk factors

2.1.7 Risk Management Framework

Most of Finance books define it as Framework for Risk Management has suggested that the risk management framework rests on three pillars. They are summarized as follows:

Making Good Investment Decisions Creates Corporate Value

For traditional banks this means making good loans and investments and non tradition banks, it means this plus making good investment decisions regarding their nontraditional activities e.g., investment banking, mutual funds, insurance derivatives.

Generating Enough Cash Flow Internally is the Key to Making Good Investments

Companies that do not generate cash flow internally tend to cut investment more substantially than their competitors do. In banking, generating enough cash flow internally plays a critical

role in maintaining a firm's capital adequacy. Adequate capital in turn is a prerequisite for expansion and making good investments. With respect to cost and control, finance companies with inadequate capital are subject to higher deposit insurance premiums greater regulatory scrutiny and possible takeover by outsiders (Froot & Scharfstein, 1994:193).

Proper and Prudent Look at Major Market Indicators

Finance should look properly at major market indicator because adverse movements in external factors such as interest rates, and commodity prices can disrupt cash flow; a company's ability to invest can be jeopardized.

2.1.8 Credit Risk Management Technique

As the majority of the finance companies' assets are in the form of loan, as the lending function is simple and create the value of the companies. The main danger is the chance of the borrower not to pay the loan amount. Therefore, the proper and prudent management of the credit risk is very necessary three techniques for the managing the credit risk in their article published in the Journal of Banking and Finance.

Risk Based Pricing

It has been established that risk based pricing requires lenders to change the rate that compensates for the riskiness of the loan. The pricing procedure needs to be straightforward and not based solely on historical loan loss experience. In practice, loan pricing tends to flow the prime rate plus basis. Because the prime rate is not the lowest rate a bank charges, the credit worthiest customers can negotiate discounts from the prime rate. The discount prime rate is what banks use to attempt to compete with open market instruments such as commercial paper and corporate bonds.

Assets Restriction

Banks lenders and other creditors have a claim on the borrower's assets. As long as the market value of assets exceeds the value of liabilities, creditors are protected because proceeds from the sale of assets cover all the claims. Alternatively, as long as positive net worth exists, business firms are not going to turn over to creditor's assets that exceed the value of claims against them. Thus, one way for lenders to protect themselves is to try to ensure that the value of assets always exceeds than value of claims. Restriction amount of debt a borrower takes on and restricting the variability of the value of assets are the basic ways of meeting this objectives. Restricting covenants in loan agreement and the strength of bank customer relationships are practical ways that lenders impose asset restrictions or attempt to establish borrower's incentives for compliance.

Monitoring

If lenders have a contractual right to monitor assets value continuously and to seize assets, then loan losses can be minimized either by auditing asset values and seizing assets before shortfalls exists or by requiring the posted value if collateral assets to equal or exceed the promised payments. For private loans, for which finance companies have considerable expertise in organization, monitoring with continuous surveillance is costly.

2.1.9 Regulation Relating to Loan Classification and Loan Loss Provisioning

Finance companies are heavily regulated than its non-bank competitors in the financial service industry. They are subject to follow the updated regulations issued by the regulation authority. As my topic is solely devotes to the credit risk review is just based on the recent regulation relating to the credit that are issued by the Nepal Rastra Bank, the regulating authority of Nepal. As per directives issued by NRB dated 2058-5-29 loans and advances shall be classified into the following four categories

Performing Loan

According to Nepal Rastra Bank Directives good loans are considered as performing loan as pass loan, Pass loan and advance whose principal amount are not past due and past due for a period up to one month shall be included in this category. Those are classified and defined as performing loans. Before, up to three months past due is taken as pass loan.

Non-Performing Loan

According to Nepal Rastra Bank Directives sub standard, doubt and bad loans were considered as performing loan as follows:

Sub Standard

All loans and advances that are past due for a period of three months to six months shall be included in this category. Those are classified as none performing loans.

Doubtful

All loans and advances, which are past due for period of six month to one year, shall be included in this category. Those are classified as none performing loans.

Loss

All loans and advances which are past due for a period of more than one year as well as advance which have at least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future has be included in this category. Those

loans and advances are also classified and defined as none performing loans. However, NRB circulates a new circular on above classifications. It mentions only two types of loans. All the installment dues and matured loans are Loss loan and remaining are considered as Pass loan. Banks shall classify the loans every quarter and send the details for the same in the specified format within one month from the end of each quarter to the Nepal Rastra Bank (Rabindra Bhattarai, 2007: 114).

Additional Arrangement in Respect of Loss Loan

- Even if the loan is not past due loans having any or all of the following discrepancies shall be classified as loss.
- No security at all or security that is not in accordance with the borrower's arrangement with bank.
- The borrower is absconding or cannot be found.
- Purchased or discounted bills are not realized within 90 days from the due date.
- The credit has not been used for the purchase originally intended.
- Owing to non recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation
- Loans provided to the borrowers included in the blacklist and where the credit information bureau blacklist the borrower.

The Loan Loss Provision

Based on the outstanding loans and advances and bills purchase classified as per directives shall be provided as follows.

| Classification of loans | Loan Loss provision |
|--------------------------------|----------------------------|
| Pass | 1 percent |
| Substandard | 25 percent |
| Doubtful | 50 percent |
| Loss | 100 percent |

Source: Annual Report

Installments dues from one year is 100% provision of total principal balance of the loan. Further more recently the NRB circulates all the financial institution to maintain 100% loan loss provision for all the installment dues.

Policy on Accounting of Non-Banking Assets

Banks may in the case of non-utilization of loan, recover the outstanding principal and interest by the way of disposing the assets placed as collateral. Situation may arise requiring the banks

to accept assets where the offer received for the assets put into auction is unsatisfactory. Under the section 13(1) of commercial banking Act, 2031 such self-acquired assets are required to be disposed off with in 7 years. The bank management should be specific as to the valuation policy of assets. Since the assets are not for the purpose of own use and required to be disposed off within the specific time period valuation of such assets shall be equivalent to the outstanding amount of principal and interest such as the outstanding amounts become nil where the amount realize in disposition of the assets at a future date i.e. within seven years, varies the difference amount shall be adjusted to the profit and loss account. However, where in the year of acquisition of the assets, the total outstanding amount of principal and interest is more than the market value of such assets, the assets has to be valued at the market price and the difference amount of outstanding principal, interest and the market value of assets shall be charges off to the profit and loss account in the year of acquisition itself. (Regulation relating to loan classification and loan loss provisioning before 2058.5.29)

2.1.10 Capital Adequacy Ratio

Capital adequacy ratio (CAR) is the proportion of Capital Fund or Shareholders equity on the total risk weighted asset of a bank. In other words, it is the capital portion, which is used to finance the asset. The total risk weighted asset, on the other hand, includes both on & off balance sheet items, which has been rated with certain percentage of risk. The risk weight of assets ranges from zero for cash, balance at NRB and investment in government bonds to 100% for loans and advances. The higher risk weighted asset means lower will be the capital adequacy ratio as CAR is the ration between Capital fund and Risk Weighted Asset. According to unified directive 2005, the capital fund includes two types of capital.

A. Primary Capital

Primary Capital includes all of initial capital or all of operational capital of company.

Table: 2.1

Primary Capital (Tyre One Capital)

| | |
|---|--|
| 1 | Issued Capital |
| 2 | Share Premium |
| 3 | Irredeemable Preference Share |
| 4 | General Reserve Fund |
| 5 | Retained Earning |
| 6 | Capital Redemption Reserve |
| 7 | Net Profit After Tax, Tax,& Bonus(Current Year) |
| 8 | Capital Adjustment Fund Other Free Reserve |
| 9 | Other Free Reserve |

(Source: Unified Directive of NRB, 2005)

B. Supplementary Capital

Supplementary Capital refers to all the reserves bank has made for specific purpose, such as loan loss, foreign exchange loss etc. The Supplementary Capital includes:

Table: 2.2
Supplementary Capital (Tyre Two Capital)

| | |
|---|---|
| 1 | General Loan Loss Provision (Good Loan) |
| 2 | Assets Revaluation Reserve |
| 3 | Hybrid Capital Instrument |
| 4 | Unsecured Subordinated Term Debt |
| 5 | Exchange Equalization Reserve |
| 6 | Additional Loan Loss Provision |
| 7 | Investment Adjustment Reserve |

(Source: Unified Directive of NRB, 2005)

Capital Fund

Capital Fund includes both the primary and supplementary capital. It can be stated in equation as below:

$$\text{Capital Fund} = \text{Primary Capital} + \text{Supplementary Capital}$$

Risk Weighted Assets includes both the on and off balance sheet assets. On balance sheet asset includes three types of risk-weighted asset (i.e. 0%, 20% and 100%). Zero percentage risk weighted assets include cash and bank balance, gold (tradable), investment in NRB and Government Bonds, loan against own bank's fixed deposit receipts, money at call, loan against government bonds, interest receivable on National Saving Bonds. 20% risk weighted asset includes balance with local and foreign banks, loan against other bank's fixed deposits receipts, money at call, loan against internationally rated bank's guarantee and other investment on internationally rated banks. 100% risk weighted assets includes investment on investment on

shares and debenture, loans and advances, fixed assets, other investment, all other assets (excluding tax paid and accrued interest receivable). Off balance sheet assets includes four types of types of risk-weighted asset (i.e. 0%, 20%, 50% and 100%). Bills collection has 0% risk. Letter of credit with maturity period less than 6 months and guarantee against counter guarantee of international rates foreign banks have 20% risk. 50% risk weighted asset includes letter of credit with maturity period more than 6 months, bid bond, underwriting and performance bond. 100% risk weighted items include advance payment guarantee, financial guarantee, other guarantee, irrevocable loan commitment, contingent liability income tax, acceptance, and other contingent liability.

The Capital Adequacy ratio of a bank is calculated as below:

i. Capital Adequacy Ratio for Core Capital

$$\text{Capital Adequacy Ratio} = \frac{\text{Core Capital}}{\text{Total Risk Weighted Assets}}$$

ii. Capital Adequacy Ratio for Total Capital Fund

$$\text{Capital Adquacy Ratio} = \frac{\text{Capital Fund}}{\text{Total Risk Weighted Assets}}$$

According to NRB directive 2005, the stator Capital Adequacy Ratio (CAR) for core capital is 6%, where as CAR for total capital fund is 12% for fiscal year 2064/065. A finance company is a business organization that receives and holds deposits of fund from others, makes loans or extends credits and transfers fund by written order of deposits.

Finance company is a corporation, which accepts demand deposits subject to check and makes short-term loans to business enterprises, hire purchase, regardless of scope of its other retail banking services. A finance company is a dealer in money and substitute for money, such as cheque or bill of exchange. It also provides a variety of retail financial services. Commercial bank is a bank which exchanges money, deposits money, accepts deposits, grant loans and performs commercial banking functions and which is not a bank meant for co-operative, agriculture, industries or for such specific purposes.

Commercial bank should consider the national interest followed by borrower's interest and the interest of the bank itself before investing to the borrowers." To further his view, bank lending must be for such purpose of the borrowers that remain keeping with national policy and banks' overall investment policy. A bank's overall investment can be point out as follows.

- Should be basically of short term characters
- Should be well spread
- Should be repayable on demand
- Most of Profitable
- Most be well in adequate security

Thus, commercial banks have to consider policy of the government (i.e. Nepal Rastra Banks instructions), national and their own interest as well. Good investment policy ensure maximum amount of investment to all sectors with proper utilization. A textbook of Banking (Law Practice and Theory of Banking) have described various aspects of lending. They had outlined principles of good lending. What constitutes good advances and a credit appraisal? Banks follow a cautious policy in the matter of lending and are generally governed by the well-known general principals of sound lending as below.

Safety: The main business of banking consists of borrowing various types of deposits such as current, saving, fixed, and discounting of bills. The safety of such funds should be ensured. If the banker has to ensure safe lending, then the three C's of the borrower are character, capacity and capital. Character of the borrower is important because that determines his willingness to repay the loan. His capital and capacity to run the loan depends on both his capacity to repay and willingness to repay.

Liquidity: As the bankers deposits are subject to the legal obligations of being repayable on demand and at short notice, he must ensure liquidity also while lending so in times of need. He will be able to convert the assets into cash quickly and can sell it without any loss.

Profitability: Commercial banks have obtained funds from shareholders and naturally if dividend is to be paid on such shares earning profits can only pay it. However, the banker will not give undue importance to this aspect because a particular customer may offer a higher rate of interest but an advance made to him result in a bad debt. Therefore, for the sake of profitability the other two principles, liquidity and safety cannot be scarified.

The purpose of the loan: Bankers should enquire the purpose for which the loan is taken. If an advance is given for productive purpose, in all profitability, it will be repaid. Thus, safety is ensured. If an advance is made for speculative purpose, the banker may fail.

Diversification of Loans: The popular saying is "Do not put all the eggs in the same basket". A banker should try to diversify loans as far as possible, so that he may minimize the risk in

lending. If the banker lends only to one industry or only two few big firms or concentrates in a certain geographical area, the risk is greater. He should diversify lending so that the failure of one industry or the few big borrowers may not affect him. Where lending is done only in one area, it may be affected by political upheaval or natural calamities.

What Constitutes a Good Bank Advance?

In order to make good advance, banker has to ensure the character of the borrower, nature of the proposition, security, and capacity of the borrower to utilize the credit, source of repayment and profitability of the advance.

The character of the Borrower: The banker should thoroughly enquire into the integrity and reliability of the borrower. The local manager already knows much of the information concerning the customer. The success of the loan very much depends on the truth of representation of the facts made by the customer and his capacity to run the scheme to a successful conclusion. This depends on his technical competence managerial skill and experience in particular industry or trade.

Collection of credit information: In case of new customer, the banker has to collect credit information before deciding to make and advance to the customer. In foreign countries, there are specialized credit agencies that collect information relating to the status and financial standing of businesspersons and sell the information to the bankers. Examples of such credit agencies are Seyd. & Co. in England and Dun & Bradstreet in U.S.A, in India information is available from the credit Information Bureau functioning in the Reserve Bank of India, which provides such information. Such agencies contributes that information makes easy for loan decision.

Nature of the proposition: Banks prefer to advance of short periods, especially for working capital requirements. There are specialized institution to finance for the acquisition of fixed assets and new venture.

Security: Banker should rely more on the customer and his proposition. However, it is still risky to lend without security. He can fall back on the security when the customer and his proposition fail. According to George Rae, chairperson of the (banker) book was covered by mentioning of adequate security. It is clear that in respect of such advances you would stand absolutely exempt from the risk of loss, but the moment you being to make expectation to the rule, by granting advances to this client or that without security, you leave the solid ground of safety for the treacherous swamps of banking risks.

Capacity of the borrower to utilize the credit: The banker must reasonable, be sure about the capacity and integrity of the customer regarding utilization of credit for the purpose for which it is taken. The customer must have the marginal competence and hard working nature. Bank should see that the amount of loan required is properly arrived at after taking into account all relevant expenses. Quite often, the customer misses such items as taxes, overheads, legal expenses, and bank interest. If the amount stated is insufficient, the proposition will be affected by shortage of funds. If the bank is not in a position to lend the required amount, the customer will have to either go slow with his expansion or seek assistance from the other institutions. Sometimes, the proposition may be financed by more than one bank in consortium basis. In deciding the amount to be advanced banker always ensure that the stake of proprietor in the business is more than now own. If this is not ensured, the customer is likely to be reckless in the utilization of funds.

Sources of repayment: The banker should enquire the source from which repayment is promised. Where the request is for funds required as additional working capital, and the borrower promises to repay the advance out of profits over a period, the proposal requires careful consideration, and the banker after calling for full information should ascertain the rate at which the customer can reasonable hope to repay the advance. Before giving advance the banker should ensure that the repayment programmed has been properly drawn up and realistic. The sources from which repayment come must be clear. Banks mostly prefer self-liquidating advances.

Profitability of the advances: Interest on advances is the main sources of the banks revenue and the interest charged on advances depend in several factors such as prevailing bank rate, the rate of interest paid on deposits, and the risk involved in the particular advance and any other special consideration.

Steps Involved in the Appraisal of Credit Risks

Credit appraisal is an art, which every practical banker should master from out of experience can never be reduce to an absolute seen . In spite of several technical aids, such as ratio analysis of financial statements, cash flow and fund flow statements available to the modern banker, the ability to make a correct loan decision very much depends on the shrewd and critical judgment, common sense perspective intelligence and discriminating sense of the lending banker. However, the usual steps involved in the appraisals of credit risk are:-

1. Initial interview with the customer. In the initial interview the banker should ascertain the following:

- The character , capacity and integrity of the borrower
- The purpose for which the loan is being requested-whether productive or unproductive
- Prospects of his proposal whether it will succeed or fail
- Repayment capacity of the borrower including a consideration of the source of repayment.

2. The collateral that is being offered as security must be investigated as to the following.

- Whether it is easily marketable
- Value of security at present
- Whether the value is likely to be stable or it is the security such that its value fluctuates considerably and
- In case of default in payment, is it easily transferable?

Credit Investigation of the Customer

For credit investigation of the customer, the banker looks into:

- Past history of account
- Reports from other bankers and related institutions, in the same line of business in the case of new costumers.
- Search of document like memorandum of articles, registration papers, annual report available with the Registrar of joint stock companies
- A visit to customers place of business
- Analysis of Balance sheet and profit and loss Account and funds flow analysis in the case of existing companies

In the case if new companies or new projects of existing companies, there must be a critical appraisal of the projects, which includes the following:

- Examination of technical feasibility
- Whether project is economically available
- The competence of managerial personnel to successfully complete and run the project
- Examination of cash budget to ensure the repayment programmed.

“Practical Banking” has explained the term credit appraisal. Credit Appraisal, the process of judging the soundness of credit proposal by carefully assessing the risks involved in extending credit to the proposal submitted by the borrowers. Appraisal involves two aspects: determination of the quantum of credit to be given and the safety of such credit .In the past the bankers were mostly guided by the security offered, the character of the borrower and their experience, if any in relation to the borrower. Now the process of credit appraisal has become

sophisticated involving a detailed study of business plans, analysis of balance sheets, profit and loss accounts, cash flow and fund flow-both past and projected. Ratio analysis techniques is used to analyses the balance sheet and profit and loss accounts (Radshawmy M. 1984:124).

Short-term loans are given essentially to meet the working capital gap, a part of which the borrower has to meet from out of long term sources. The bank manager ensures that the business plan submitted by the borrower is capable of achievement. The borrower submits the following statement during the loan application.

- Operating statement showing the gross sales, cost of sales (with all the details), gross profit, operating profit after deducting interest, selling, general and administrative, expenses, provision for taxes, interest and net profit after taxes.
- Position regarding current assets and current liabilities, if the peak requirements of finance are on the date different from the balance sheet date then information should also be given as on that date.
- Computation of maximum permissible bank finance for working capital
- Performa statement of stocks and receivables
- Analysis of balance sheet with the help of analytical and comparatively tools
- Funds flow statement

Business plans are based on the several assumptions such as government policy, market factors production constraints relating to power and raw material and changes in production techniques because of research and development. These assumptions must be subject to scrutiny and if they are found to be not reasonable, the business plan must be revised. The manager should scrutinize the peak level balance sheet to determine the maximum credit limits. The peak level position and the credit limits should be revised if the peak level statement is found to be in excess of the norms. Projected year-end balance sheet should be studied to know how the financial position of the borrower would be after the completion of the business plan. Projected funds- flow statement should be studied to ensure that the long-term sources are not only sufficient to meet the long term requirements, but also leave a balance to meet the working capital requirements.

Term Loans:

Term loans are medium and long term credits given for purchase of assets, like land, building and machinery and equipment. The amounts of terms loans are fixed primarily in relation to the total costs of the projects. Recently, there has been a phenomenal expansion in the demand for the term credit from the industry. In spite of the extension of several special financial institutional started to provide such credit, there is still a credit gap, which the commercial

banks can fill because of the resources at their disposal. Banks in the past were cautious in extending term credit as they considered such credit non-liquid and risky. However, a substantial portion of the short term credit is “rolled over” by the commercial banks in this country. The overall financial position of the bank’s deposits, its capital funds and the general level of its advances deposits ratio limit the quantum of term lending.

Aspects of Appraisal:

Appraisal of term-loans requires a dynamic approach, involving as it does among others, a projection of future trends of output and scales and estimates of costs return and flow of funds. There are four broad aspects of an appraisal technical feasibility, economic feasibility, financial or commercial feasibility and managerial competence. The scope of appraisal and the emphasis placed on each aspect would depend on the circumstances of each case. The examination of technical feasibility consists of an assessment of the various requirements of the actual production process with a careful enquiry into the availability, accessibility and quality of the goods and services needed.

The testing of economic feasibility will be with reference to the earning capacity of the project. The appraisal of managerial competence is of importance because in a dynamic economic environment, the ability of an enterprise to forge a head of others depends upon the quality of its management. The repayment prospects of a loan thus vitally depend upon the competence and integrity of the management.

The most important aspect of the term loan appraisal is the financial aspect. The term lending institutions have to ensure that the projects to be handled by them meet the minimum financial criteria’s:

- The estimated cost of the project is reasonable and complete and has a chance of materializing
- The financial arrangement is comprehensive without leaving any gaps and ensures availability of cash as and when needed
- The estimates of earning and operating costs are as realistic as circumstances permit.
- The borrower’s repaying capacity as judge from the project operations is demonstrable with a reasonable margin of safety

The financial analysis considers the cost of the project, cost of production and profitability, performed financial statements, cash flow statement and income statements.

Ratio Analysis:

The banker has to apply ratio analysis to financial statements for three or four years to know the trends or patterns in financial structures and inter-relationship of facts. One of the important

ratios is the debt-equity ratio. From the lender's point of view the financial structure should reveal a satisfactory balance of "owned funds" i.e. equity and borrower funds i.e. debt.

Inspection:

The pre-sanction and a follow-up of loan proposals in order to keep a watch on the progress of the projects are of considerable importance. There is an extension of financial appraisal and therefore form a part of the work of lending institution.

Loan Agreement:

Because of a thorough financial appraisal, the terms and conditions of the loan are settled. In drawing up their terms of loan, the principal consideration should be that it should ensure financial viability of the borrowing concern and as at the same time allowing a margin of safety to the lending institution. Most of the time lending institution charges a uniform rate of interest on all loans. But it is preferable to have variables rates of interest according to the degree of risk involved.

Security against Term Loan:

In the case of term loans, scientific financial assessment is of paramount importance. However, in the absence of credit information bureaus, which can give information about the credit worthiness of the borrowers but the consideration of security assumes importance. In India, the security generally accepted by the term lending, institution loan proceeds and non-industrial assets as supplementary security. Assets can be valued based on book value or current market value or replacement value. In valuing the assets, it is better to combine one or more of the methods so that the resulting valuation safeguards of the interest of the lender and works out to be equitable to the borrower. A proper valuation of security requires the assistance of legal experts

Participation Arrangements:

Where the amount of loan is too large for a single lending institution, some form of participation arrangement so the part of different institution would be necessary. Such arrangement can also serve other purpose such as underwriting of shares, issuing guarantees etc. The investment credit policies of banks are conditional, to great extent, by the national policy framework; every banker has apply his own judgment for arriving at a credit at a credit decision, keeping of course his bank's credit policy also in mind. His further state The field of investment is more challenging as it offers relatively greater scope to bankers for judgment and discretion in selecting their loan portfolio. But this higher degree of freedom in the field of

credit management is also accompanied by greater risk, particularly during recent years; the credit function has become greater complex.

2.2. Review from related Studies

Present section deals about concept or findings of earlier scholars on the concerned field of the study. It helps to develop the study as link in a chain of research that is developing and emerging the knowledge about the related field.

2.2.1 Review of Articles and Journals

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

All commercial banks and financial institutions ensuring transparency during loan disbursement as per provision. All commercial banks as well as all financial institution are now required to disclose the name of loan defaulters in every six months. Until now, there was no such legal system of disclosing the loan defaulters' name. The new directives have also barred the financial institution from lending any amount to the blacklisted defaulter and their family members. The credit information bureau (CIB) can black list the firm, company or clear the debt within the stipulated period, as per day set criteria for blacklisting, the CIB would monitor those individuals and companies that have the principle loan of above Rs. one million. If the creditor falls to clear the amount within time, or is found mission the loan among other, the creditor can be blacklisted, (NRB Directives Published by NRB Nepal)

Due to slowdown in the world economy and deteriorating law and order situation of the country, many sectors of the economy are already sick. When any sector of economy catches cold, bank start sneezing. From this perspective, the banking industry as a whole is not robust. In case of investors having lower income, portfolio management may be limited to small saving income. On the other hand, portfolio management means to invest funds in various schemes of mutual funds like deposits, shares and debentures for the investors with surplus income. Therefore, portfolio management becomes very important both for an individual's as well as for institutional investors. Large investors would like to

select the best mix of investment assets. (Shrestha, 2008 "Portfolio management lays the vital role in individual as well as institutional")

The current volume of the total banking deposits is over 1550-fold higher than what used to be some 38 years ago whereas the Gross Domestic Product (GDP) of the country during the same

period, price increased just by 62-folds. Central bank static's shows that the total banking deposit in 1965 used to be just Rs. 129.8 million, but swelled to Rs. 202.13 billion by mid-Jan 2003. Similarly, the total loan and advances of the entire banking system in 1960 stood at Rs. 107 million, which was over 82 percent of them total deposit. However, total loans and advances went up to Rs. 127 billion, comparing almost 63 percent of the total deposit, during the period. As a result both deposit and lending of the banking system witnessed increase of over 6-folds and 5 folds to Rs.21 billion respectively by 1990s. As a result of economic expansion and private sector development, the nineties witnessed a quantum jump in both deposit mobilization and lending. The deposit of banking system, by the end of 2002, touched Rs. 154.5 billion, which are 7-folds more than the deposit of the nineties. Loans and advances from the banking system touched Rs. 118 billion by June-end 2000 and the amount was double than what it used to be in 1985. (The Kathmandu Post (2003), "Central bank tightens blacklisting procedures")

In the past report titled 'loan loss provision rises Notably' published in the Kathmandu Post, 2003 the reporter has made an endeavor to highlight some facts and figures regarding loan loss provision of commercial banks. 'The banking sector is witnessing a huge surge in loan loss provisioning reserve lately. The increment is primarily a result of a directive issue by Nepal Rastra Bank (NRB) in 2001 that introduced stringent loan provisioning criteria for commercial banks. As per data recently released by the central bank, the total loan loss provision in the country's banking sector increased from amount Rs. 8.73 billion in mid-April 2001 to Rs. 13.18 billion in mid-April 2003. The increment is over 51 percent. As per the latest NRB figures, a remarkable surge has been seen in loan provision of Nepal Bank Ltd (NBL). Against the provision of Rs. 1.7 million in mid-April 2007, the loan provision amount surged to whopping Rs. 7.33 billion in a year"

The reporter further stated that apart from the two technically insolvent government-invested banks, loan provision of other joint venture private banks has also risen significantly and the notable increments seen in the loan loss provisioning amounts due to the eight-point prudential directives that the central bank issued in mid-July to all commercial banks.

The reporter concludes, "The directives laid down stringent guidelines relating to loan loss provisioning to ensure a good health of the overall banking system. The directive requires loans to be provisioned to the extent of cent percent if payment is defaulted for one year. Likewise, the directives require loans to be provisioned to the extent of 25 per cent if payment is defaulted for over three months and 50 per cent if the period of default extends beyond six months. The earlier directive required progressive provisioning of loans, but allowed maximum of three

years, unlike the present system of just two year, for loans to be provisioned to the extent of cent percent'.

Ghimire K. (2006), in his article titled "*Credit sector reform and NRB*" has tried to highlight the effects of change or amendment in NRB directives regarding loan classification and loan loss provisioning. Although the circumstances leading to financial problem or crisis in many Nepali banks differ in many respects, what is common among most of the banks is the increased size of nonperforming assets (NPAs), to resolve the problem of the losses or likely losses of this nature facing the industry. NRB, as the central bank, has amended several old directives and issued many new circulars in the recent years.

As opinioned by him, since majority of the loans of most of the commercial banks of the country at present fall under substandard, doubtful and even loss categories, loan loss provisioning now compared to previous arrangement would be dramatically higher. The new classification and provisioning norms are much lent able as they help to strengthen banks financially. He added that we also must remember that the old system remained in force from 1991 to 2001, which was probably the most volatile decade of the business operation of the country. He has indicated that loan loss provisioning as a percentage of total credit of April 12, 2001 is 5.2% but as April 13, 2003, it has jumped to 18.39. If only private banks are considered, it is 2.12% of April 2001 where as it is 6.30% as of April 13, 2003. The total increment in LLP is Rs 11,328.11, million and the total increment in credit is only Rs 7976.70. He has also stated that tightening provisioning requirements on NPL is to ensure that banks remain liquid even during economic downturns.

In the conclusion he has mentioned that in the recent years NRB has worked for management and reform of the credit of the financial institution more seriously and NRB has adopted reforms aimed not just at dealing with problems but also at strengthening banking supervision to reduce the likelihood of future crisis, "All prudential directives of NRB in connection of credit sector reform have been made revised after April 2001. To adapt to such changes there can be some difficulties and for a better and harmonized reform NRB should continue to be supportive, proactive and also participative to take opinions of bankers for a change in regulation/policy taking place in the future."

Chhetri D.B. (2007), titled "*Non Performing Assets: A need for Rationalization*", the writer has attempted to provide connotation of the term NPA and its potential sources, implication of NPA in financial sector in the South East Asian region. He has also given possible measures to contain NPA. "Loan and advance of financial intuitions are meant to be serviced either part of principal of the interest of the amount borrowed in stipulated time as agreed by the parties at the

time of Loan settlement. Since the date becomes past dues, the loan becomes non-performing asset. The book of the account with lending institution should be effectively operative by means of real transaction affected on the part of the debtor in order to remain loan performing."

As stated by the writer, the definition of NPA differs from country to country. In some of the developing countries of Asia Pacific Economic Cooperation (APEC) forum, a loan is classified as non-performing only after it has been arrear for at least 6 months. Similarly, it is after three months, in India. Loans thus defaulted are classified into different categories having their differing implication on the asset management of financial institution. He also stated that NPAs are classified according to international practice into 3 categories namely substandard, Doubtful and Loss depending upon the temporal position of loan default. "Thus the degree of NPA assets depends 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 of asset is being perceived and such assets are treated accordingly. "As per Chhetri's view, failure of business for which loan was used, defective and below standard credit appraisal system credit program sponsored by Government, slowdown in economy/recession, diversion of fund is some of the factors leading to accumulation of NPAs.

Koirala C.R. (2008) he wants analyze in his article, there is serious implication of NPAs, on financial institutions. He further added that the liability of credit institution does not limit to the amount declared as NPA but extends to extra amount that required for provisioning depends upon the level of NPAs and their quality. As per his view, rising level of NPAs create a psyche of worse environment especially in the financial sector. He mentioned that by reviving the activities of the financial institution like waiving interest, rescheduling the loan, writing off the loan, appointing private recovery agent, taking help of tribunals and law of land, etc, NPAs can be reduced.

Finally, he concluded that financial institutions are beset with the burden of mounting level of NPAs in developing countries. Such assets do bar of income flow of the financial institution while claiming additional resources in the form of provisioning thereby hindering gain investment. Rising level of NPAs cannot be taken as stimulus but the vigilance demanded to solve the problem like this, eventually will generate vigor to gear up the banking and financial activities in more active way contributing to energizing growth.

Pradhan S. B (2053), "*Deposit Mobilization its Problem and Prospects* "saving is income not consumed. It is one the important and perhaps the chief sources of Investment. In developing countries about 45% of the incremental saving is invested domestically, while in developed countries about 75% of the incremental saving in invested domestically. This suggests that

capital is more mobile in developing countries than in developed countries. Saving are of great significance in a country's development. While saving results in high economic growth rate, rapid development leads in turn high savings. Nepal's saving rate is lower as to other developing countries, however, even to achieve 5 to 6 percent economic growth rate, more than 25 percent annual Investment of GDP is considered necessary. As the country's current domestic saving are about 14% the economic resources are short by nearly 11% in proportion of the GDP.

The situation is such that huge portion of Investment has still to be made with external resources. The amount of saving of a typical household in Nepal is small because of the people have limited opportunities for Investment. They prefer to spend saving on commodities rather than on financial assets. This restricts the process of financial intermediation, which might otherwise bring benefits such as reduction of Investment risk and increase in liquidity. When capital is highly mobile international, saving from aboard can also finance the investment needed at home. When capital is not mobile internationally, saving form abroad will limit Investment at home.

Wherever there is Investment there must be capital formation .The development of an economy requires expansion of productive activities, which in turn is the result of the capital formation, which is the capital stock of country. The change in the capital stock of the country is known as Investment. Therefore, Capital formation is closely related to investment. Investment generally takes two forms:

- Financial Investment and,
- Physical Investment

Physical Investment related to real Investment in the economy or industry, which is known as capital formation. Capital formation shows the change in gross fixed assets of production units of manufacturing industries.

Capital formation refers to the creation of physical productive facilities such as building tools, equipment and roads. The process of adding to the amount of stock of the real assets produces growth in the economy. It means increasing a country's stock of real capital. It implies additions to the exiting supply of capital goods in a country. It represents an additional of new capital stock to exiting stock after deducting depreciation, damage and other physical deterioration of the existing capital stock. Economic progress in country depends upon its rate of capital formation. Hence, a key factor in the development of an economy is the mobilization of domestic resources. In the process of capital formation, the capacity to save by certain classes of people and institution becomes quit important. These people have varied asset-preferences,

which change from time to time. The need of entrepreneurs who actually use saving for productive purpose also varies over time.

Shrestha S. (2006), wrote in her article *Business Age* entitled “*Entrepreneur –Friendly Credit Policy*” has reviewed the present credit policy with main focus of the credit decision being based on the collateral. He argues that only collateral should not be considered as the basis of the credit decision. Access to finance is vital element for entrepreneurship development in the country. Without it, one cannot think of starting business of any sort. It’s mainly due to this reason; most of the students after completing their single mindedly look for employment opportunity. No other option, no matter how lucrative and attractive it would be enters into their mind. It has created huge pressure in the labor market. In the absence of entrepreneurial activities in the country, employment opportunity will be very limited and even qualified and competent people do not get job. The established notion of the Nepalese bankers that money lent to the wealthy people based on collateral is safe it is not actually a safe assumption in the face of greater difficulty in loan recovery from these people

This particular segment of market is already over-banked. With the worsening business performance of the Nepalese corporate sector mostly due to the poor management compounded by other factors sluggish economic conditions and political instability, banks must now explore newer market segment for their sustained growth and success. Under this backdrop, Nepalese commercial banks must change their policy and must understand that even the people living in the low and middle level of economic pyramid can potentially be lucrative market. They can ignore them only at their peril, especially at the time when the competition in the market consisting of people at upper level of economic pyramid is very intense and had already saturated. In this context, potential entrepreneurs armed with skills, knowledge and readiness to take plunge in the business world can form a formidable market opportunity for the Nepalese banking industry –only if it can come out of the cocoon of traditional collateral-driven lending approach.

At the time when Nepalese-banking industry is confronting with the increasing NPA, it might seem unwise and untimely to suggest that commercial banks extend loan to the potential entrepreneurs without collateral. It is not that they must ignore the collateral altogether while making credit decision. Collateral may be one of the important elements of the credit decisions. However, this should not be a pre-condition for any credit decision. Lesson should be learned from the experience of this credit policy that collateral alone does not ensure quality of credit decision. The fluctuation and stagnancy in the real estate business has further reinforced this view. More important, Nepalese bankers themselves must have to have entrepreneurship spirit which means, they should not hesitate to take educated risk by giving more weight to the

entrepreneurship dimension of the credit proposals while making credit decision. The ability of lending is identifying and investing a distinct competitive advantage in the crowded market. However, it is essential that any government rules and regulations that inhibit the promotion of entrepreneurship in the country must be abolished.

Entrepreneurship development is one of the important conditions for the economic growth of a country. There must be the sprout of entrepreneurship activities in the country for rapid economic growth and progress. However, it does not happen automatically. We must create necessary condition and environment where people with skills, knowledge and hunger to make money by starting their own business can get easy access to capital.

The ordinance relating to banks and financial institutions has been promulgated that has been brought into existence effective February 4, 2004. The Banks and Financial

Institutions Ordinance, 2004 has replaced the existing Agricultural Bank Act, 2024, Commercial Bank Act, Development Bank Act, and Nepal Industrial Development Corporation Act and Finance Companies Acts and have brought all such institutions under the preview of a single Act. Though this ordinance came as an achievement in the financial sector reform program, its being a matter of debate among the various finance experts that the ordinance having six months existence time should be enacted? At this time since there is no parliament in the country and the parliament is authorized to enact permanent law. It is obvious that the financial sector must go through uncertainty in the future. The ordinance, popularly called as Umbrella Act.

Upadhya P. (2007), wrote an article for “*Comments on Umbrella Ordinance 2004*” he has clearly described the ordinance along with his views. The ordinance is comprehensive and prescribes in detail the provision for licensing, incorporation, governance and merger and dissolution procedure for banks and financial institutions (FIs). This is a significant improvement over the existing Acts but apprehension is expressed about the discretionary power that the ordinance has vested on Nepal Rastra Bank.

2.2.2 Review from Previous Research Works.

Devkota R. (2007), on a topic of “*Development of Financial Institutions in Nepal*”

Major objectives:

- To evaluate the functioning of central bank of promotion of financial development
- To examine the size, structure and performance of financial institutions
- To examine the size, activities, and performance of stock market
- To derive implicates for future research and policy making

Major findings:

- There has been mushrooming of financial institutions, development banks, and commercial banks in particulars.
- Non-banking sector major challenges lies in maintaining financial stability.
- The effort should be oriented towards developing the financial infrastructure, avoiding deceiving complete policies and strengthening regulation of the NRB supervision and widening the access to the financial services.
- Most of the financial institutions are concentrating their services in Kathmandu Valley. Despite the government policy to give permission to open financial institutions Kathmandu only.

Major recommendations:

- Large scale of development lending is required to support the development of agricultural and industrial sectors.
- All the non-banks aim to improve the socioeconomic status of the rural, poor residing mostly in inaccessible areas.
- The deposits of the non-banking financial institutions grew significantly over the years even though the country needs to do a lot of homework to set up a strong foundation for making a healthy financial system.

Ojha S. (2008) entitled with *"Lending Practices: A Study on NABIL Bank Ltd., Standard Charter Bank Ltd. and Himalayan Bank ltd."*

Major objectives:

- To determine the liquidity position the impact of deposit in liquidity and its effect on lending practices
- To measure the banks' lending strength
- To analyze the portfolio behavior of lending and measuring the ration and volume of loans and advances made in agriculture, priority and productive sector
- To measure the lending performances in quality, efficiency and its contribution in total income

Major findings:

- The measurement of liquidity has revealed that the mean current ratio of all the three banks is not widely varied. All of them are capable in discharging their current liability by current assets

- The measurement of lending strength in relative terms has revealed that the total liability to total assets of SCBNL has the highest ratio.
- The high ratio is the result of high volume of shareholder equity in the liability mix. Himalayan Bank Ltd. has high volume of saving and fixed deposits as compared to current deposit resulting into low ratio of non-interest bearing deposits to total deposits ratio compared to the combined mean.
- The loan advances, and investment to deposit ratio has shown that NABIL Bank Ltd. has developed the highest proportion of its total deposits in earning activities. This is the indicative of that in fund mobilizing activities NABIL Bank Ltd. is significantly better.

Major Recommendations:

- The lending in commercial purpose is highest in case of NABIL Bank Ltd. and least in case of Standard Charter Bank Ltd has highest contribution in service sector lending. It has contributed 25.47% of its total credit in general use and social purpose
- The ratio of investment to investment and loan and advances has measured the total portion of investment in total of investment and loans and advances. The ratio among the banks does not have deviated significantly.

Regmi K. (2009) entitled with “A Study on Credit Practices of Joint Venture Commercial Banks with reference to Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd.”

Major objectives:

- To forecast about joint venture commercial banks position in Nepal
- To determine impact of deposit in liquidity and its effect on lending practices
- To know the volume of contribution made by both bank in lending
- To examine lending efficiency and its contribution in profit
- To analyze trend of deposit utilization towards loan and advances and net profit and their projection for next five years

Major findings:

- In terms of liquidity ratio, current ratio of NSBL is higher than that of NBBL. The ratio of liquid fund to current liability of NSBL is higher than NBBL.
- This shows that NBBL has less consistency than NSBL. The ratio of cash and bank balance to deposit of NSBL is higher than that of NBBL.
- Cash and bank balance to interest-sensitive deposit measures the liquidity risk arising from fluctuation of interest rate in the market.

- The ratio of cash and bank balance to interest sensitive deposit of NSBL is higher than NSBL. NSBL has poor position due to high volume of interest sensitive liability in deposit mix.
- The ratio of loans and advances to total assets of NBBL is higher than NSBL. Likewise mean ratio of loans and advances to total deposit of NBBL is higher than NSBL. The mean ratio of investment to loans and advances and investment of NSBL is higher than that of NBBL. Likewise the ratio of total investment to total deposit of NSBL is higher than that of NBBL.
- The ratio of credit to government enterprises to total credit of NBBL is higher than that of NSBL. The mean ratio of credit to bills paid and discount to total credit ratio of NBBL is higher than that of NSBL. NSBL has contributed 95.91% in private sector loan, 2.51% in government sector loan and 1.56% in bills paid and discounts. Likewise NBBL has contributed 90.83% in private sector loan, 4.29% in government sector loan and 4.84% in bills paid and discounts.

Major recommendations:

- Among the various measurement of profitability ratio return on equity (ROE) and earnings per share (EPS) reflects the relative measure of profitability. The performance of NBBL is better than NSBL. Return on equity and earnings per share of NBBL are higher than that of NSBL in all years.
- Co-efficient of correlation between deposit and loans & advances of both banks has positive value. Also co-efficient of correlation between total income and loans & advances of both bank have positive relation
- Coefficient of correlation between net profit and loans & advances of NSBL is negative as other variables like increase in interest suspense and loan loss provision affects net profit. Coefficient of correlation between net profit and loans & advances of NBBL is positive
- Trend analysis of total deposit of NSBL and NBBL are found in increasing trend. The increment ratio on deposit of NSBL is lower in comparison to NBBL
- The lending practices and the volume of credit in comparison to the deposits. Therefore, the major gap in this research is study of the risk involved in the lending practices or the study of credit risk. Therefore, further study on the risk involved in creating credit can be made.

Shrestha S. (2009), entitled with “*A Study of Non Performing Loan & Loan Loss Provision of Commercial Bank, A Case Study of NABIL, Standard Charter Bank Ltd and Nepal Bank Limited*” has made study about a part of credit risk associated with those banks.

Major objectives:

- To find out the proportion of non-performing loan in the selected commercial banks.
- To find out the factors leading to accumulation of nonperforming loan in commercial banks
- To study and analyze the guidelines and provisions pertaining to loan classification and loan loss provisioning.
- To find out the relationship between loan and loan loss provision in the selected commercial bank.
- To study and the impact of loan loss provision on the profitability of the commercial banks.

Major findings:

- The NBL has the highest portion of the loan in total asset followed by NABIL and SCBNL. She concludes that the SCBL shows the risk-averse attitude. Likewise the non-performing loan to total loan is found highest in NBL, NABIL and SCBNL. Likewise the Loan Loss Provision is also highest in NBL where as the SCBL has the least Loan Loss Provision
- The NBL has the highest portion of Loss loan followed by NABIL and SCBL. This study is more concentrated on non-performing loans; however, there exist lots of areas in credit risk management where further research is called for. In context of credit risk, collateral risk, concentration risk, organization risk management system. It can be studied.

Major recommendations:

- SCBL shows the risk-averse attitude. Likewise the non-performing loan to total loan is found highest in NBL, NABIL and SCBNL.
- Likewise the Loan Loss Provision is also highest in NBL where as the SCBL has the least Loan Loss Provision

Bhandari M. (2008), entitled with "*A study on the credit risk management of Nepalese Commercial Banks*" taking reference to Kumari Bank Limited & Machhapuchhre Bank Limited.

Major objectives:

- To examine the credit risk position of the selected commercial banks in Nepal
- To analyze the credit risk management system and practices of KBL and MBL
- To evaluate the organizational structure of KBL and MBL to manage the credit risk

Major findings:

- It is found that the majority of the respondents of both banks have favored with the bank's single sector, which is up to 10 % of total loan. However, the sector wise lending analysis portrays that KBL and MBL have extended up to 19.88 % and 30.12% of loan in a single sector respectively in FY 2064/065
- The exposure on the single sector of KBL and MBL exceeds 10 % of total loan in 3 and 5 sectors respectively. The single sector loan to core capital shows that the ratio crossed 100% in 2 sectors of both KBL and MBL.
- In regard to concentration risk, KBL has more risk in manufacturing and others sector where as MBL has more risk on manufacturing and Whole seller and sectors
- as the single sector credit to core capital ratio in these sectors is more than 100 % . MBL has very high loan concentration on manufacturing sector of 199.35% of the core capital. From the personal interview of the key respondents, it was found that both banks have been extending credit in those highly concentrated sectors after getting approval from the board of director. This clarifies that concentration risk is the main source of credit risk for KBL and MBL.
- Lack of systematic and thorough credit processing is also the major source of credit risk in these banks. The problems in credit processing include lack of thorough credit assessment, absence of testing and validation of new lending techniques, subjective decision-making by senior management, lack of effective credit review process, failure to monitor borrowers or collateral values, and failure of banks to take sufficient account of business cycle effects etc
- The market-sensitive and Liquidity-sensitive exposures also increase the credit risk of these banks. Similarly, it is found that both banks have their own rating system of the credit client and the sectors. Both banks have ranked 1st to the manufacturing sector where as the Agriculture sector has been ranked the last on the basis of priority. KBL has chosen others sector and real estate business in 2nd and 3rd position respectively, where as the MBL has just opposite preference in these sectors
- KBL has ranked Character, Collateral and Capacity of borrower first, second and third criterion for granting credit where as MBL ranked Character, Capacity and Capital first, second and third priority respectively. The hypothesis test on the preference of the bank's staff also proves that there is no significant difference between observed and expected frequency of ranking.

Major recommendations:

- The major banking risks include credit risk, market risk (i.e. liquidity risk, interest risk, operation risk etc). Among these risks, credit risk has the major impact on banking (i.e. more than 60 %). Because of the credit risk, the Non Performing Loan (NPL) of bank will increase. With the increase in NPL, the loan loss provisioning will also increase

simultaneously leading to decrease in profit. The decrease in profit results in low dividend to shareholder and bonus to employees.

- To remain alert and prepare plans and policies to tackle unpredictable factors such as violence riots, natural disaster, technology and employees, fault and fraud of customers and outsiders are the challenges for these commercial banks.
- For proper management of the credit risk, both banks have their own set of policies and practices, which is in consistence with NRB guidelines. For credit risk management, both banks have Credit Policies Guidelines (CPG). Similarly, NPL is regularly monitored by both the banks on regular basis and provisioning is done on quarterly basis by categorizing the loan as per NRB guidelines.
- Similarly, sector wise and security wise lending is being analyzed by these banks on monthly basis. Organizational structure of these banks is frequently restructured for proper credit risk management as per requirement.

2.3 Research Gap

Since the above mentioned studies offer limited findings, more extensive testing , and adjustment of necessary variables are needed in ordered to be more conclusive about the Credit Management. Previous studies were directed to find the effect of the credit management of different financial institutions. Similarly, previous study is unable to present the exact condition of credit management in Nepalese banking sector Nepal.

Presently, this study aims to attempt to study about credit management of Nepalese commercial banks in Nepal. The previous relevant literature related to banking business and non-banking financial institutions has just reviewed to support the study. The previous study is failed to study the perfect credit management of Nepalese financial institutions and banks. This study tries to fulfill this weakness. In addition, there is less research made in this topic especially in financing sector.

For minimizing the loss arising due to occurrence of the credit risks, capital adequacy have been maintained by these banks within the standard prescribed. However, the trend of Capital Adequacy ratio of these banks suggests that both the banks need to increase their capital fund, which is possible mainly by issuing shares, debentures or preference share. The banks and financial institutions have their own set of procedures for assessing various risks and their management; problems are still prevalent in these banks. In credit risk, single sector loan concentration is the main problem in both the banks. The major problem is a high amount of lending in manufacturing sector, lending without collateral, non-performing loan & organizational structure for handing credit risk. With the increase in total loan, so, proper adjustment is needed for managing.

The Credit Management has very big role to sustain any banking business. It is equally important to identify the relation of performance of the banking and nonbanking business. Therefore, it tries to assess the credit management of banking sector and by providing the proper atmosphere for the banking market in our country. The present study is based on five years data of particular finance companies, which tries to achieve its objectives by analyzing secondary source of data. Thus, the earlier studies on these issues need to be updated and validated because of the many changes taking place in Nepalese financing sector. The current study is a supplement to overcome the weakness and limitation of previous studies.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

Research simply means to search again and again it is a systematic activity to achieve truth or finding solution to a problem. It is a process of a systematic and in- depth study or research of any popular topic, subject or area of investigation backed by the collection, compilation, presentation and interpretation of relevant details or data. Methodology is the research method used to taste the hypothesis. Therefore, the research methodology refers to the overall research process, which a researcher conducts during his/her study. Kathary says in his definition, the purpose of research is to discover answers to questions through the application of scientific procedures. The main aim of research is to find the truth which is hidden and which has not been discovered at yet. Research Methodology is a systematic, controlled, empirical, and critical investigation of natural phenomena guided by theory and hypothesis about the presumed relations among such phenomena. The basic framework of this study is descriptive as well as exploratory. In order to research and accomplished the objectives of this study, different activities are carried out and different stages are crossed during the study period. For this purpose, the chapter aims to present and reflect the methods and techniques those out and followed during the study period. Research methodology refers to the various sequential steps to be adopted by a researcher in studying a problem with certain objectives in view. Research methodology describes the methods and process applied in the entire subject of the study. In other words, research methodology is the way to solve systematically the research problem.

3.2 Research Design

Research design is the plan, structure and strategy of investigation conceived to obtain answers to research questions and to control variances. There are many methods of research design and this study will be based on resent historical data. Mostly, secondary information to be collected, evaluated, verified, and synthesized to research. To achieve the objective of this study

descriptive data different journals and articles relevant with the study, annual reports of different fiscal years of concerned financial institutions. Nepal Rastra Bank directives, banking and financial statistics report published by Nepal Rastra Bank and other related materials are collected and studied. The study is evaluative and analytical type of study regarding the credit management. The research design used in the study is descriptive and evaluative. The data relative to topics are collected through financial statement of the bank and other available sources. The data for five years had been collected and various financial and statistical tools had been used to resolve the objectives.

3.3 Population and Sample

The method of selecting for study a small portion of the population to draw conclusion about characteristics of the population is known as sampling. Sampling may be defined as the selection of part of the population on the basis of which a judgment or inference about the universe is made. There is a lot of mushrooming financial institution in Nepal. These all finance companies operating in Nepal are regarded as a population of the study. But it is not possible to cover the entire financial institute under the study. So, only following two finance company have been taken as sample of the study.

- Kathmandu finance Limited.
- Nepal housing and merchant finance company.

List of Finance Companies

| S.No. | Names | Operation Date (A.D.) | Head Office |
|-------|---|-----------------------|----------------------------|
| 1 | Nepal Housing Development Finance Co.Ltd. | 1992/03/08 | Bijulibazar, Kathmandu |
| 2 | Nepal Finance Ltd. | 1993/01/06 | Kamaladi, Kathmandu |
| 3 | NIDC Capital Markets Ltd. | 1993/03/11 | Kamalpokhari, Kathmandu |
| 4 | Narayani National Finance Ltd. | 2009/11/01 | Kalikasthan, Kathmandu |
| 5 | Annapurna Finance Co.Ltd. | 1993/09/30 | Pokhara, Kaski |
| 6 | Nepal Share Markets and Finance Ltd. | 1993/10/19 | Ramshahapath, Kathmandu |
| 7 | Peoples Finance Ltd. | 1993/04/15 | Mahabauddha, Kathmandu |
| 8 | Mercantile Finance Co. Ltd. | 1994/11/10 | Birgunj, Parsa |
| 9 | Kathmandu Finance Ltd. | 1994/11/10 | Dillibazar, Kathmandu |
| 10 | Himalaya Finance Ltd. | 1993/11/11 | Sundhara, Kathmandu |
| 11 | Union Finance Ltd. | 12/12/1995 | Kamaladi, Kathmandu |
| 12 | Gorkha Finance Ltd. | 1995/03/12 | Hattisar, Kathmandu |
| 13 | Paschhimanchal Finance Co.Ltd. | 1995/04/09 | Butawal, Rupandehi |
| 14 | Nepal Housing & Merchant Finance Ltd. | 1995/04/11 | Dillibazar, Kathmandu |
| 15 | Universal Finance Ltd. | 1995/04/27 | Kantipath, Kathmandu |
| 16 | Samjhana Finance Co. Ltd. | 1995/05/03 | Banepa, Kavre |
| 17 | Goodwill Finance Ltd. | 1995/05/16 | Dillibazaar, Kathmandu |
| 18 | Siddhartha Finance Ltd. | 1995/05/25 | Siddharthanagar, Rupandehi |
| 19 | Shree Investment & Finance Co. Ltd. | 1995/06/01 | Dillibazar, Kathmandu |
| 20 | Lumbini Finance & Leasing Co. Ltd. | 1995/06/26 | Thamel, Kathmandu |
| 21 | Inbesta Finance Ltd. | 1995/07/17 | Birgunj, Parsa |
| 22 | Yeti Finance Ltd. | 1995/07/23 | Hetauda, Makawanpur |
| 23 | Standard Finance Ltd. | 1995/07/23 | Narayanachaur, Kathmandu |

| | | | |
|----|---|------------|----------------------------|
| 24 | International Leasing & Finance Co. Ltd. | 1995/10/31 | Naya Baneshwor, Kathmandu |
| 25 | Mahalaxmi Finance Ltd. | 1995/11/26 | Putalisadak, Kathmandu |
| 26 | Lalitpur Finance Co. Ltd. | 1995/12/12 | Lagankhel, Lalitpur |
| 27 | Bhajuratna Finance & Saving Co. Ltd. | 1996/01/09 | Kantipath, Kathmandu |
| 28 | United Finance Co. Ltd. | 1996/1/25 | Durbarmarg, Kathmandu |
| 29 | General Finance Ltd. | 1996/02/02 | Chabahil, Kathmandu |
| 30 | Merchant Finance Co. Ltd. | 1996/01/02 | Newroad, Kathmandu |
| 31 | Alpic Everest Finance Ltd. | 1996/07/16 | Kathmandu Mall, Kathmandu |
| 32 | Nava Durga Finance Co.Ltd. | 1997/02/09 | Itachhe, Bhaktapur |
| 33 | Janaki Finance Co. Ltd. | 1997/03/07 | Janakpurdham, Dhanusha |
| 34 | Pokhara Finance Ltd. | 1997/03/16 | Pokhara, Kaski |
| 35 | Central Finance Ltd. | 1997/04/14 | Kupondole, Lalitpur |
| 36 | Premier Finance Co. Ltd. | 1997/05/08 | Kumaripati, Lalitpur |
| 37 | Arun Finance Ltd. | 1997/08/17 | Dharan, Sunsari |
| 38 | Multipurpose Finance Co. Ltd | 1998/3/25 | Rajbiraj, Saptari |
| 39 | Butwal Finance Ltd. | 1998/06/21 | Butawal, Rupandehi |
| 40 | Shrijana Finance Ltd. | 1999/12/14 | Biratnagar, Morang |
| 41 | Om Finance Ltd. | 2000/09/17 | Pokhara, Kaski |
| 42 | CMB Finance Ltd. | 2000/11/20 | Kamalashhi, Kathmandu |
| 43 | World Merchant Banking & Finance Ltd. | 2001/08/10 | Hetauda, Makawanpur |
| 44 | Capital Merchant Banking & Finance Co. Ltd. | 2002/02/01 | Battisputali, Kathmandu |
| 45 | Crystal Finance Ltd. | 2002/02/13 | Thapathali, Kathmandu |
| 46 | Royal Merchant Banking & Finance Ltd. | 2002/02/14 | Durbarmarg, Kathmandu |
| 47 | Guheshworil Merchant Banking & Finance Ltd. | 2002/06/13 | Pulchowk, Lalitpur |
| 48 | Patan Finance Co. Ltd. | 6/23/2002 | Pulchowk, Lalitpur |
| 49 | Fewa Finance Ltd. | 2003/04/30 | Pokhara, Kaski |
| 50 | Everest Finance Ltd. | 2003/07/02 | Siddharthanagar, Rupandehi |
| 51 | Prudential Finance Company Ltd | 2003/06/06 | Dillibazar, Kathmandu |
| 52 | ICFC Finance Ltd. | 2003/06/15 | Bhatbhateni, Kathmandu |
| 53 | IME Financial Institution Ltd. | 2005/08/01 | Panipokhari, Kathmandu |
| 54 | Sagarmatha Merchant Banking and Finance Ltd | 2005/08/29 | Maanvawan,Lalitpur |
| 55 | Shikhar Finance Ltd. | 2005/09/15 | Thapathali,Kathmandu |
| 56 | Civil Merchant Bittiya Sanstha Ltd. | 2005/09/18 | Kuleshwor,Kathmandu |
| 57 | Prabhu Finance Co. Ltd. | 2006/02/16 | Lainchur,Kathmandu |
| 58 | Imperial Finance Ltd. | 2006/03/08 | Thapathali,Kathmandu |
| 59 | Kuber Merchant Finance Ltd. | 2006/03/24 | Kamalpokhari, Kathmandu |
| 60 | Nepal Express Finance Ltd. | 2006/05/04 | Sundhara, Kathmandu |
| 61 | Valley Finance Ltd. | 2006/05/11 | Maharajgunj,Kathmandu |
| 62 | Seti Bittiya Sanstha Ltd. | 2006/06/07 | Tikapur, Kailali |
| 63 | Hama Merchant & Finance Ltd. | 2006/06/16 | Tripureshwor, Kathmandu |
| 64 | Reliable Finance Ltd. | 2006/09/06 | Sundhara, Kathmandu |
| 65 | Loard Buddha Finance Ltd. | 2006/11/19 | Fasikeb, Kathmandu |
| 66 | Api Finance Ltd. | 4/25/2007 | Pokhara, Kaski |
| 67 | Nameste Bitiya Sanstha Ltd.. | 2007/07/07 | Ghorai, Dang |
| 68 | Kaski Finance Ltd. | 2007/07/30 | Pokhara, Kaski |
| 69 | Suryadarshan Finance Co. Ltd. | 2007/07/30 | New Baneshor, Kathmandu |
| 70 | Zenith Finance Ltd. | 2007/10/08 | Newroad, Kathmandu |
| 71 | Unique Financial Institution Ltd. | 2007/10/12 | Putalisadak, Kathmandu |
| 72 | Manjushree Financial Institution Ltd. | 2007/10/15 | New Baneshor, Kathmandu |
| 73 | Swostik Merchant Finance Company Ltd. | 2007/10/16 | Kichapokhari, Kathmandu |
| 74 | Subhalaxmi Finance Ltd. | 2007/11/11 | Naxal, Kathmandu |
| 75 | Jebil's Finance Ltd. | 2009/10/28 | New Road, Kathmandu |
| 76 | Reliance Finance Ltd. | 2009/12/03 | Pradarsani Marg, Kathmandu |
| 77 | Lotus Investment Finance Ltd. | 2010/04/11 | Newroad, Kathmandu |
| 78 | Baibhab Finance Ltd. | 2011/01/24 | Naya Baneshwor , Kathmandu |
| 79 | Bhaktapur Finance Ltd. | 2011/02/08 | Chyamsing ,Bhaktapur |

Source: www.google.com.np/financialinstitutions

3.4 Nature and Sources of Data

The study is mainly conducted on secondary data relating to the study of credit risk management of financial companies in Nepal especially reference to Kathmandu finance limited and Nepal housing and merchant finance limited. For the purpose of the study, various related books, booklets, magazine, journals, newspaper and thesis made in this field have been referred. Besides necessary suggestions are taken from various experts

3.5 Data Collecting Procedures

The annual reports of the concerned banks were obtained from their head office and their websites. The main sources of data are annual report of concern financial institute. NRB publication, such as Banking and Financial Statistics Economic Reports, Annual Reports of NRB etc .has been collected from the personal visit of concerned department of NRB at Baluwatar. Besides, a details review materials are collected from the library of Nepal Commerce Campus.

3.6 Tools and Techniques Employed

As mentioned earlier, this study is confined to the single analysis of credit risk management of the finance company. To reach the objectives, the collected data are computed and analyzed using financial and statistical tools.

3.6.1 Financial Tools

The measuring instrument, which can be used in financial analysis, is known as financial tools. It helps to calculate the relationship between two financial variables on ratio and percentage basis.

3.6.1.1 Ratio Analysis

Ratio analysis is a technique of analysis and interpretation of financial statement. To evaluate the performances of an organization by creating the ratios from the figure of different accounts consisting in balance sheet and income statement is known as ratio analysis. Five types of ratios have been analyzed in this study, which are related to fund mobilization of the banks. They are presented below:

a) Liquidity Ratio

Liquidity ratio measures the ability of the firm to meet its current obligations. A commercial bank must maintain its satisfactory liquidity position to meet the credit need of the community. Liquidity provides honor strength health and prosperity to an organization. It is extremely essential for an

organization to meet its obligations as they become due. A firm should ensure that it has not lack of liquidity and also that it is not too much highly liquid.

i) Cash and Bank Balance to Total Deposits Ratio: - Cash and bank balance is said to be first line defense of every bank. The ratio between the cash and bank balance and total deposit measures the ability of a bank to meet the unanticipated call on all types of deposit. Higher the ratio greater will be the ability to meet the sudden demand of deposit. But every ratio is not desirable since bank has to pay interest on deposit. This also maximizes the cost of fund to the bank.

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

Where,

Cash and bank balance is composed up of cash on hand including foreign cheques and other cash item; balance with domestic banks and abroad. Deposits include current, saving, fixed money at short call notice and other types of deposits.

ii) Cash and Bank Balance to Current Assets Ratio: - This ratio shows the bank's liquidity capacity on the basis of cash and bank balance that is the most liquid assets. High the ratio indicates the bank's ability to meet the daily cash requirements of their customer deposits and vice versa. But the high ratio is not preferred as the bank has to pay more interest on deposit and will increase the cost of fund. Low ratio is also very dangerous, as the bank may not be able to make the payment against the cheques presented by the customers. We have,

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

iii) Investment on Government Securities to Current Assets Ratio: - This ratio is used to find out the percentage of current assets invested on government securities, treasury bills and development bonds. We can find out as:

$$\text{Inv. on Govt. securities to Current Asset Ratio} = \frac{\text{Investment on Govt. Securities}}{\text{Current Assets}}$$

Where,

Investment on Government Securities involves treasury bills and development bonds etc.

b) Assets Management Ratio:

“A set of ratio which measure how efficiently a firm is managing its assets and whether or not the level of those assets is properly related to the level of operation. In this study this ratio is used to indicate how effectively the selected banks have arranged and invest their limited resources. The assets management ratios measure how effectively the firm is managing its

assets. These ratios are designed to answer this question; does the total amount of each type of assets as reported on the balance sheet seem reasonable or not? If a firm has excessive investments in assets, then its capital cost will be unduly high and its stock price will be suffer” (Brigham, 1989).

i) Loan and Advances to Total Deposits Ratio: - This ratio is calculated to find out how successfully the selected banks are utilizing their collections or deposits on loan and advances for the purpose of earning profit. We have,

$$\text{Loan and Advances to Total Deposits Ratio} = \frac{\text{Loan and Advances}}{\text{Total Deposits}}$$

ii) Total Investment to Total Deposits Ratio: - Investment is one of the major sources of earning profit. It shows how properly firm's deposit has been invested on government securities and shares and debentures of other companies.

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

iii) Loan and Advances to Total Working Fund Ratio: - This ratio shows the ability of selected banks in terms of earning high profit from loan and advances. Loan and advances to working fund ratio can be calculated by dividing loan and advances amount by total working fund.

$$\text{Loan and Advances to Total Working Fund Ratio} = \frac{\text{Loan and Advance}}{\text{Total Working Fund}}$$

iv) Investment on Government Securities to Total Working Fund Ratio: - Investment on government securities to working fund ratio shows how much part of total investment is there on government securities in percentage, it is calculated for this purpose by following formula:

$$\text{Investment on Govt. Securities to TWF Ratio} = \frac{\text{Investment on Govt. Securities}}{\text{Total Working Fund}}$$

v) Investment on Shares and Debentures to Total working Fund Ratio: Investment on shares and debentures to total working fund ratio shows the investment of banks on the shares and debentures of other companies in terms of total working fund. This ratio can be obtained dividing on shares and debentures by total working fund. It is calculated as:

$$\text{Investment on Shares and debn. to TWF Ratio} = \frac{\text{Investment on Share and Debenture}}{\text{Total Working Fund}}$$

c) Profitability Ratio: - This ratio is related to profit of the banks is essential for the survival of the bank, so it is regarded as the engine that drives the banks and indicates economics progress. It calculated to measure the overall efficiency of the banks.

i) Return on Loan and Advances Ratio: - Return on loan and advances ratio shows how efficiently the banks have utilized their resources to earn good return from provided loan and advances. This ratio is computed as,

$$\text{Return on Loan and Advances Ratio} = \frac{\text{Net Profit / Loss}}{\text{Loan and Advances}}$$

ii) Return on Total Working Fund Ratio: - Return on total working fund ratio measures the profit earning capacity by utilizing available resources i.e. total assets. Return will be higher if the bank's working fund is well managed and efficiently utilized. Maximizing taxes, this in the legal options available will also improve the return. We have,

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

iii) Total Interest Earned to Total Working Fund Ratio: - This ratio reflects the extent to which the banks are successful in mobilizing these total assets to acquire income as interest. This ratio actually reveals the earning capacity of commercial banks by mobilizing its working fund. Higher the ratio higher will be the income as interest. We have,

$$\text{Total Interest Earned to TWF Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Working Fund}}$$

iv) Total Interest paid to Total working Fund Ratio: - This ratio measures the percentage of total interest expenses on total working fund and vice-versa. This ratio is calculated as,

$$\text{Total Interest paid to Total Working Fund Ratio} = \frac{\text{Total Interest Paid}}{\text{Total Working Fund}}$$

d) Risk Ratios: - Commonly, risk means chance or possibility of loss, uncertainty which lies in the business transaction of investment management. When a firm wants to bear risk and uncertainty, profitability and effectiveness of the firm is increased. This ratio checks the degree of risk involved in the various financial operations. For this study following risk ratios are used to analyze and interprets the financial data and investment policy.

i) Liquidity Risk Ratio: - The liquidity risk of the bank defines its liquidity need for deposit. The cash and bank balance are the most liquid assets and they are considered as banks liquidity sources and deposit as the liquidity needs. The ratio of cash and bank balance to total deposit is an indicator of bank's liquidity of need. This ratio is low if funds are kept idle as cash balance but this reduces profitability, when the banks makes loan, its profitability increase and also the risk. Thus, higher liquidity ratio indicates less profitable return and vice-versa. This ratio is calculated as below:

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

ii) Credit Risk Ratio: - Bank utilizes its collected funds in providing credit to different sectors. There is risk of default or non-repayment of loan. While making investment, bank examines the credit risk involved in the project. Generally credit risk ratio shows proportion of non-performing assets in the total investment plus loan and advances of a bank it is computed as:

$$\text{Credit Risk Ratio} = \frac{\text{Total Investment} + \text{Loan and Advances}}{\text{Total Assets}}$$

e) Growth Ratio: - The growth ratio represents how well the commercial banks are maintaining their economics and financial position. Higher the ratio batter performance of the bank and vice-versa. Under this topic four types of growth ratio are studied, that are directly related to the fund mobilization of commercial banks. The following ratios are calculated by using the formula of growth rate:

- i) Growth ratio of total deposits
- ii) Growth ratio of total investment
- iii) Growth ratio of loans and advances
- iv) Growth ratio of net profit

3.6.2 Statistical Tools

Under this heading some statistical tool such as coefficient of correlation analysis between different variables, trend analysis of deposit, loan and advances, net profit and EPS are used to achieve the objective of the study.

a) Karl Pearson's Coefficient of Correlation(r)

Correlation analysis is a statistical tool use to describe the degree to which one variable is linearly related to another. The coefficient of correlation measures the degree of relationship between two sets of figures. In this study simple coefficient of correlation is used to determine the relationship of different variables. The data related to different periods are tabulated and their relationship with each other is drawn out. The value of correlation can range from -1 to +1. This tool is used for measuring the intensity or magnitude of linear relationship between two series. It measures correlation coefficient between two variables X and Y is usually denoted by "r" and can be obtained as:

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

Where,

n= number of observation in series X and Y

$\sum X$ = sum of observation in series X

$\sum Y$ = sum of observation is series Y

$\sum X^2$ = sum of square observation in series X

$\sum Y^2$ = sum of square observation in series Y

$\sum XY$ = sum of the product of observations in series X and Y

Value of 'r' lies between -1 to +1

$r = +1$, implies that there is a perfect positive correlation between the variables.

$r = -1$, implies that there is a perfect negative correlation between the variables.

$r = 0$, means that the variables are uncorrelated.

b) Probable Error of Correlation Coefficient (PE)

Probable error of correlation coefficient tests the reliability of an observed value of correlation coefficient. It shows the extent to which correlation coefficient is dependable as it depends upon the condition of random sampling.

Probable error of correlation coefficient is denoted by PE and obtained as:

$$PE = 0.6745 \times \frac{1-r^2}{\sqrt{n}}$$

The probable error is used to test whether the calculated value of sample correlation coefficient is significant or not.

A few rules for the interpretation of the significance of correlation coefficient are as follows:

- $r < PE$, then the value of r is not significant i.e. insignificant.
- If $r > 6 PE$, then r is definitely significant.
- In other situations, nothing can be calculated with certainty.

c). Coefficient of Determination (R^2):

The coefficient of determination is a measure of the degree of linear association or correlation between two variables one of which happens to be independent and other being dependent variable. In other words coefficient of determination measures the percentage total variable independent variables explained by independent variables. Zero to one is the ranging measurement of this coefficient of multiple determinations. If R^2 is equal to 0.75, which indicates that total variation in the dependent variable. If the regression line is a perfect estimator R^2 will be equal to +1, when there is no correlation the value of R^2 is zero.

d) Least Square Linear Trend

Trend analysis is a very useful and commonly applied tool to forecast the future event in quantitative term on the basis of the tendencies in the dependent variable in the past period. Straight line trend implies that irrespective of the seasonal, cyclic and irregular fluctuation the trend value increases or decreases by absolute amount per unit of time. The linear trend values form a series in arithmetic progression.

Mathematically

$$Y = a+bx$$

Where, Y= value of dependent variable

a= y intercept

b= slope of trend line

x= value of independent variable i.e. time

Normal equation fitting above are

$$\sum Y = Na + b\sum X$$

$$\sum XY = a\sum X + b\sum X^2$$

Since $\sum X = 0$

$$a = \sum Y / N$$

$$b = \sum XY / \sum X^2$$

CHAPTER– IV

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

Presentation and Analysis of data is very important stage of research study. Its main purpose is to change the unprocessed data into understandable form. It is the process of organizing the data by tabulating and then placing that data in presentable form by using various tables, figures and sources of different tools. In other word, analyzing of data means the categorizing, ordering, manipulating and summarizing of data to obtain answer to research question, or research matter.

Credit management is one of the most important factors that have been developed to facilitate effective performance of economic market of financial institutions. Credit management system and, its strength show actual financial position of every financial institution. Like as commercial banks. Credit is the important basic indicators for determining profit. This chapter will discuss the various aspects of credit management and their actual accomplishment. Credit management is fundamental managerial tools. This chapter deals with the presentation, analyzing, and interpretation of data of KFL or KMHF Ltd. It is also compare the data between selected financial institutions. Besides, it also presents the various finding generated from data analysis. Many statistical tools and financial analysis tools will be used for this purpose.

4.2 Secondary data analysis

Secondary data analysis is the analysis of data by researchers who properly not have been involved in the collection of those data, for purposes that in all likelihood were not envisaged, by those responsible for the data collection. Secondary analysis may entail the analysis of either quantitative data or qualitative data but with the former that it will be concerned in this chapter. To some extent, it is difficult to know where primary and secondary analysis start and finish. In this section, the financial data obtained from secondary source of KFL and NHMF Ltd. is analyzed to measure the financial performance.

4.3 Financial Analysis

Financial statements are prepared with the help of financial transactions, which have place during the financial year. It is prepared to provide the financial information that helps to take decision. However, taken information provided in the financial statements, is not an end of itself as no meaningful conclusion can be drawn from these statements alone. Financial analysis is the process of identifying the financial strengths and weakness of the firm by properly establishing relationship between the items of financial statements, i.e. balance sheet and income statement. Many kinds of financial analysis are used for study, which are as follows.

4.3.1 Ratio Analysis

Ratio is the expression of one figure in terms of another. It is the expression of the relationship between the mutually independent figures. It is simple mathematical expression of the

relationship of one item to another. In financial analysis, ratio is used as an index of yardstick for evaluating the financial position and performance of the firm and institutions. It is a technique of analyzing and interpretation of financial statements. It helps making decisions as it helps establishing relationship between various ratios and interpret thereon. So that it is most important tools for any research study, it is used financial report and data and summarizes the key relationship in order to appraise financial performance. The effectiveness will be greatly improved when trends are indentified, comparative ratios are available and inter related ratio are prepared. From available data or information many ratios of KFL & NHMFL are can be derived as follows.

4.3.1.1 Liquidity Ratio:

Liquidity ratios measure the short- run solvency of the firm. Liquidity ratios shows the liquid position of any institutions. Under it fall the following ratios.

- i) Current Ratio
- ii) Quick Ratio

Current Ratio

It is a test of liquidity. It measures short run debt paying ability of the firm. In other word, it measures the availability of current assets for meeting current liabilities. This ratio also called working capital ratio.

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

Current Ratio is equal to 2:1 that mean current assets double the current liabilities, is considered satisfactory one. A high current ratio may not be favorable because of, a) pile up of stock and slow moving stock, b) unsatisfactory debt collection and, c) idle cash balance.

Quick Ratio

It measures the short-term liquidity of the firm but it emphasis the instant debt paying capacity of the firm. Liquidity refers to the ability of a concern to meet its current obligation as and when these become due. The short-term obligations are met by realizing amount from current assets. Liquid assets include current assets less stock and prepaid expenses

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Libilities}}$$

The quick ratio is very useful in measuring the liquidity position of the firm. Quick ratio equal to 1:1 is concerned to be satisfactory one. It is considered that if quick assets are equal to current liabilities, then the firm may be able to meet its short-term obligations without any financial difficulties to it. A high quick ratio is an indicates that the firm is liquid and has ability

to meet its current liabilities in time and on the other hand a low quick ratio represents that the firm's liquidity position is not good.

To find -out the ability of the selected financial institutions and to meet their short-term obligations, which are likely to mature in the short period, the following ratios are developed under the liquidity ratios to identify the liquidity position.

a) Cash and Bank Balance to Total Deposits Ratio

This ratio measures the bank's ability of withdrawal of fund immediately by their depositors. A higher ratio represents a greater ability to cover their deposits and vice-versa. The large ratio shows the idle cash and bank balance in banks while small ratio shows the utilization of deposit from banking perspective.

Table: 4.1

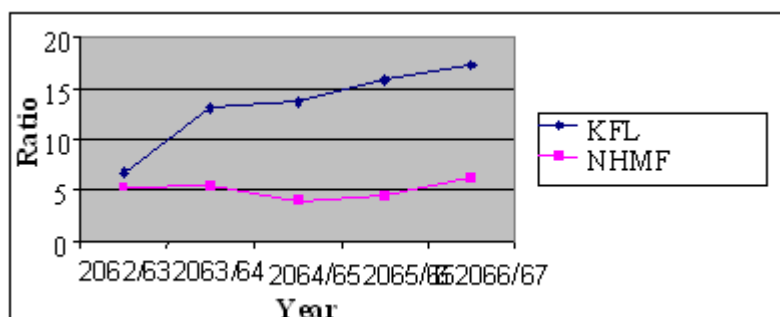
Cash and Bank Balance to Total Deposits Ratio

| Year | Ratio (%) | |
|----------|-----------|------|
| | KFL | NHMF |
| 2062/063 | 6.81 | 5.27 |
| 2063/064 | 13.04 | 5.51 |
| 2064/065 | 13.71 | 3.97 |
| 2065/066 | 15.87 | 4.39 |
| 2066/067 | 17.31 | 6.20 |
| Mean | 13.35 | 5.07 |

(Source: Appendix-1)

Figure: 4.1

Cash and Bank Balance to Total Deposits Ratio



Source: Table No 4.1

From the analysis of above table 4.1, cash and bank balance to total deposits ratio of the KFL is in increasing trend whereas ratio of NHMF is in decreasing trend in 2063/064 and in other year these are in increasing trend. The higher ratio of KFL and NHMF are 17.31% and 6.20% respectively in the same year i.e. 2066/067. The average ratio of KFL is greater than that of

NHMF (i.e. 13.35% > 5.07%). It signifies that KFL has sound liquid fund to make immediate payment to the depositors but KFL has excess liquidity rather than that of NHMF because of poor investment opportunities.

b) Cash and Bank Balance to Current Assets Ratio

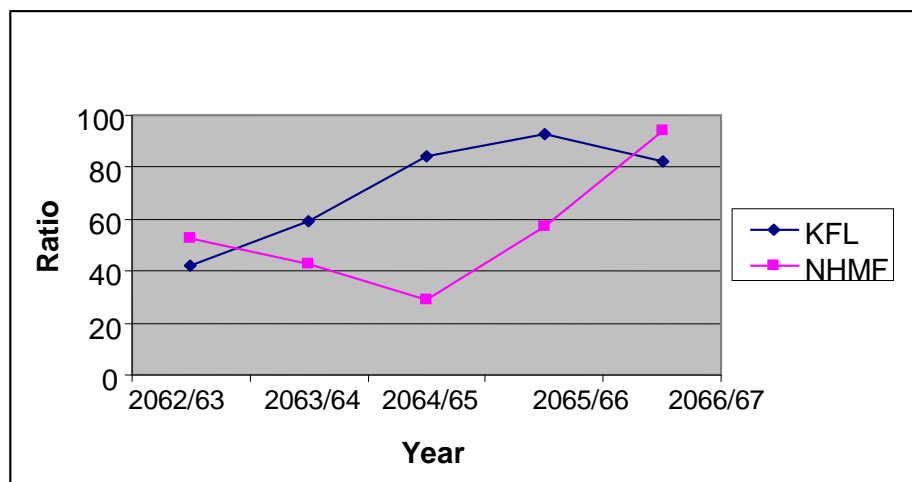
This ratio reflects the proportion of cash and bank balance out of total current assets.

Table: 4.2
Cash and Bank Balance to Current Assets Ratio

| Year | Ratio (%) | |
|----------|-----------|-------|
| | KFL | NHMF |
| 2062/063 | 42.01 | 52.56 |
| 2063/064 | 59.18 | 42.80 |
| 2064/065 | 84.14 | 28.74 |
| 2065/066 | 92.44 | 57.48 |
| 2066/067 | 82.17 | 94.09 |
| Mean | 71.99 | 55.14 |

(Source: Appendix -2)

Figure: 4.2
Cash and Bank Balance to Current Assets Ratio



Source: Table No.4.2

The table 4.2 and figure, shows that the cash and bank balance to current assets ratio of KFL is in increasing trend except in 2065/066 and ratio of NHMF is in fluctuating trend. The highest

ratio of KFL is 92.44% in year 2065/066 and lowest ratio 42.01% in year 2062/063. The mean ratio is 71.99%. Similarly, the highest ratio of NHMF is 94.09% in 2066/067 and lowest ratio is 28.74% in 2064/065. The mean ratio of NHMF is 55.14%. While observing the data, we notice that KFL has higher mean ratio, it means KFL has slightly sound liquid assets than that of NHMF.

c) Investment on Government Securities to Current Assets Ratio

Government Securities can be easily sold in the market or they can be converted into cash. The main purpose of this ratio is to examine that portion of commercial banks current assets that has been invested into different government securities. This ratio is calculated by dividing investment on government securities by current assets.

Table: 4.3

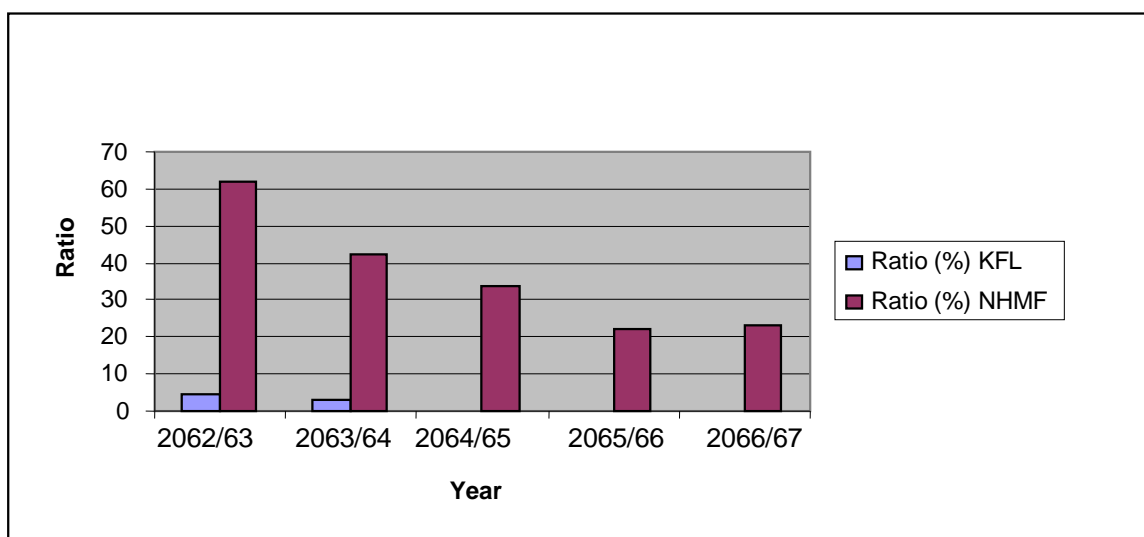
Investment on Government Securities to Current Assets Ratio

| Year | Ratio (%) | |
|----------|-----------|-------|
| | KFL | NHMF |
| 2062/063 | 4.50 | 61.98 |
| 2063/064 | 3.23 | 42.26 |
| 2064/065 | 0 | 33.50 |
| 2065/066 | 0 | 22.37 |
| 2066/067 | 0 | 23.38 |
| Mean | 1.55 | 36.70 |

(Source: Appendix-3)

Figure: 4.3

Investment on Government Securities to Current Assets Ratio



Source: Table No.4.3

The table 4.3 and figure shows that the investment on government treasury bills to current assets of KFL is in decreasing trend in 2nd year and in all subsequent year these are zero

whereas these ratio are in decreasing trend in all year except 2066/067 of NHMF. The highest ratio of KFL is 4.5% and NHMF is 61.98% in 2062/063. And the lowest ratio of KFL and NHMF are 0% and 22.37% in 2065/066 respectively. From the table we notice that mean ratio of KFL and NHMF are 1.55% and 36.70% respectively. NHMF has higher ratio in every year and mean. It means NHMF has invested more money in risk free assets than that of KFL. In another word, KFL has emphases on more loans and advances and other short term investment than investment in government securities.

4.3.1.2 Assets Management Ratio

Assets management ratio measures the efficiency of the bank and finance company to manage its assets in profitable and satisfactory manner. A commercial bank must manage its assets properly to earn high profit. Under this chapter following ratio are studied:

i) Loan and Advances to Total Deposits Ratio

The ratio measures the extent to which the banks are successful to mobilize their total deposits on loan and advances.

Table: 4.4

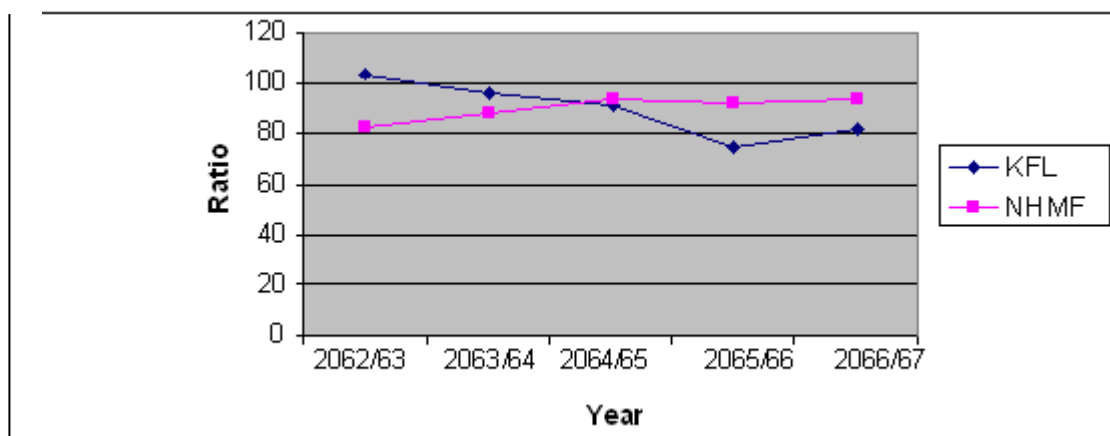
Loan and Advances to Total Deposits Ratio

| Year | Ratio (%) | |
|-------------|------------------|-------------|
| | KFL | NHMF |
| 2062/063 | 103.47 | 82.65 |
| 2063/064 | 96.32 | 88.29 |
| 2064/065 | 91.30 | 93.76 |
| 2065/066 | 75.22 | 92.28 |
| 2066/067 | 81.41 | 93.87 |
| Mean | 89.54 | 90.17 |

(Source: Appendix-4)

Figure: 4.4

Loan and Advances to Total Deposits Ratio



Source: Table No.4.4

A high ratio of loan and advances indicates better mobilization of collected deposits and vice versa. But it should be noted that too high ratio might not be better from liquidity point of view. The above table shows that these two finance company have mobilized their collected deposits in variable trend. In average KFL has mobilized 89.54% of its collected deposit in loan and advances that is slightly less than that of NHMF. According to NRB directives above 70% to 90% of loan and advances to total deposit ratio is able to better mobilization of collected deposit. So all of the year both KFL and NHMF has met the NRB requirement or it has properly utilized its deposit to provide loan.

ii) Total Investment to Total Deposits Ratio

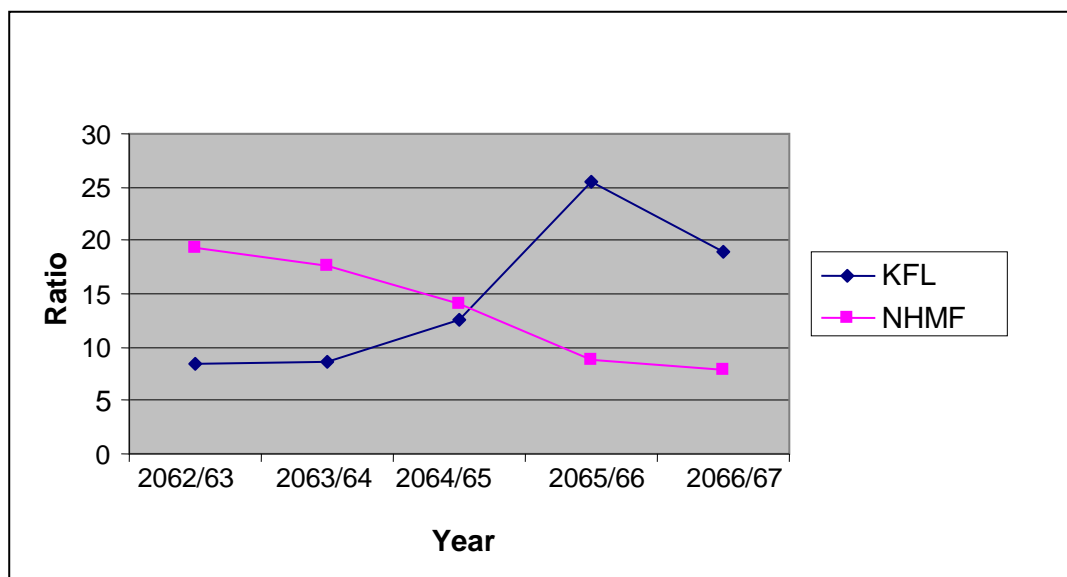
This ratio measures the extent to which the banks are able to mobilize their deposit on investment in various securities. A high ratio indicates the success in mobilizing deposit in securities and vice versa.

Table: 4.5
Total Investment to Total Deposits Ratio

| Year | Ratio (%) | |
|----------|-----------|-------|
| | KFL | NHMF |
| 2062/063 | 8.42 | 19.25 |
| 2063/064 | 8.63 | 17.69 |
| 2064/065 | 12.57 | 14.03 |
| 2065/066 | 25.59 | 8.80 |
| 2066/067 | 19.03 | 7.96 |
| Mean | 14.85 | 13.55 |

(Source: - Appendix -5)

Figure: 4.5
Total Investment to Total Deposits Ratio



Source: Table No.4.5

From the table 4.5 & figure 4.5, it is observed that the investment to total deposit ratio of KFL are increased except in 2066/067 whereas of NHMF is in decreasing trend. The mean of the ratio of KFL and NHMF are 14.85% and 13.55% respectively so KFL has higher ratio. It signifies KFL has successfully allocated its deposit in investment portfolio in comparison with NHMF.

iii) Loan and Advances to Total Working Fund Ratio

This ratio reflects the extent to which the commercial banks are success in mobilizing their assets on loan and advances for the purpose of income generation. A high ratio indicates better mobilization of fund on loan and advances and vice versa.

Table: 4.6
Loan and Advances to Total Working Fund Ratio

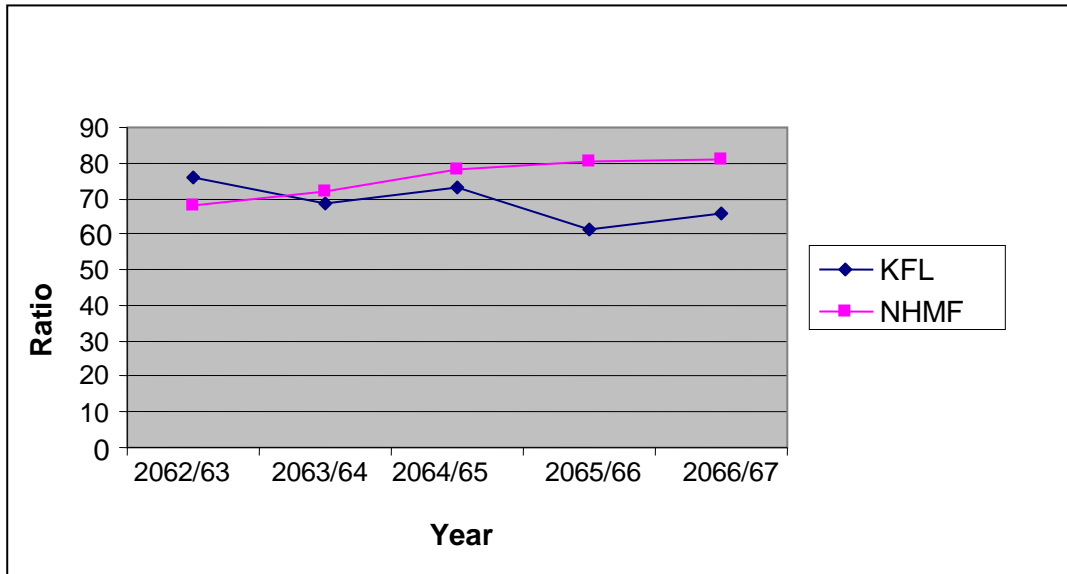
| Year | Ratio (%) | |
|----------|-----------|-------|
| | KFL | NHMF |
| 2062/063 | 76.17 | 68.03 |
| 2063/064 | 68.45 | 71.86 |
| 2064/065 | 73.24 | 78.45 |
| 2065/066 | 61.36 | 80.45 |
| 2066/067 | 66.00 | 80.90 |

| | | |
|------|-------|-------|
| Mean | 69.04 | 75.94 |
|------|-------|-------|

(Source: Appendix-6)

Figure: 4.6

Loan & Advances to Total Working Fund Ratio



Source: Table No.4.6

From the table 4.6 and figure 4.6 shows that loan and advances to total assets ratio of KFL is in fluctuating trend whereas ratio of NHMF is in increasing trend. While observing their

ratios; NHMF is better mobilizing of fund as loan and advances and it seems quite successful in generating higher ratio in each year.

The mean of KFL and NHMF are 69.04% and 75.94% respectively. So NHMF has higher ratio than that of KFL. It reveals that in total assets, NHMF has high proportion of loan and advances.

iv) Investment on Government Securities to Total Working Fund Ratio

The main purpose of this ratio is to examine that portion of banks and finance total working fund that has been invested into different government securities. This ratio is calculated by dividing investment on government securities by total working fund.

Table: 4.7

Investment on Govt. Securities to Total Working Fund Ratio

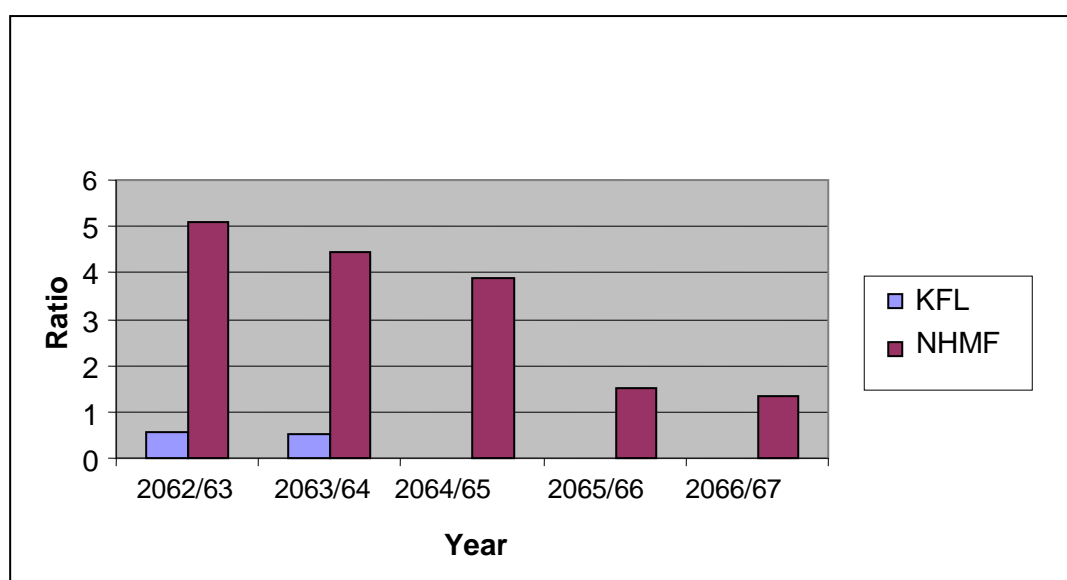
| Year | Ratio (%) | |
|----------|-----------|------|
| | KFL | NHMF |
| 2062/063 | 0.54 | 5.11 |
| 2063/064 | 0.51 | 4.43 |

| | | |
|----------|------|------|
| 2064/065 | 0 | 3.87 |
| 2065/066 | 0 | 1.49 |
| 2066/067 | 0 | 1.33 |
| Mean | 0.21 | 3.25 |

(Source: Appendix -7)

Figure: 4.7

Investment on Government Securities to Total Working Fund Ratio



Source: Table No.4.7

From the table 4.7 and figure 4.7 shows that the investment on government treasury bills to total working fund of KFL is in decreasing trend in 2nd year and in all subsequent year these are zero whereas these ratio are in decreasing trend in all year except of NHMF. The highest ratio of KFL is 0.54% and NHMF is 5.11% in 2062/063. And the lowest ratio of KFL and NHMF are 0% and 1.33% in 2066/067 respectively.

From the table we notice that mean ratio of KFL and NHMF are 0.21% and 3.25% respectively. NHMF has higher ratio in every year and mean too. It means NHMF has invested more money in risk free assets out of its total assets than that of KFL. In another word KFL has emphasizes on more loans and advances and other short term investment than investment in govt. securities.

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

The main purpose of this ratio is to examine that portion of commercial banks and finance's total working fund that has been invested into investment on share and debentures. This ratio is calculated by dividing investment on share and debenture by total working fund.

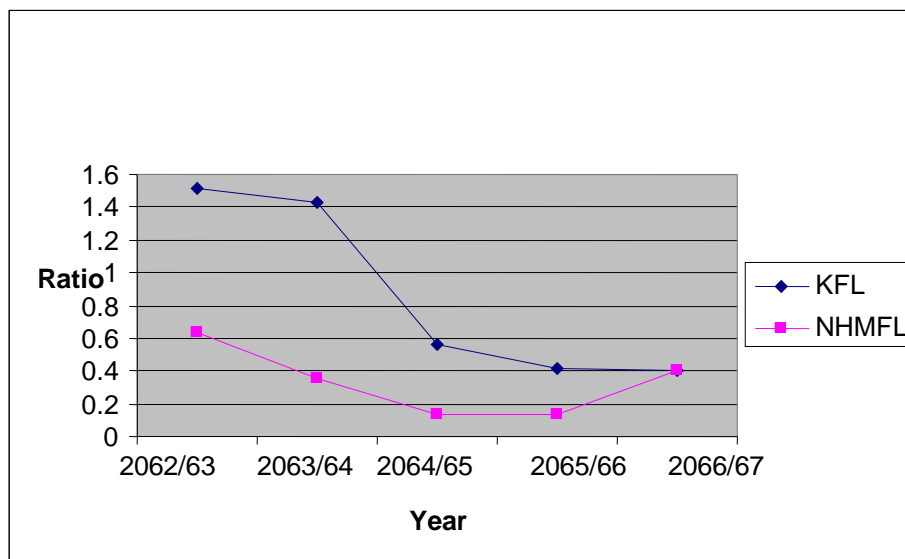
Table: 4.8

Investment on Shares and Debentures to Total Working Fund Ratio

| Year | Ratio (%) | |
|----------|-----------|------|
| | KFL | NHMF |
| 2062/063 | 1.52 | 0.64 |
| 2063/064 | 1.43 | 0.36 |
| 2064/065 | 0.56 | 0.14 |
| 2065/066 | 0.41 | 0.13 |
| 2066/067 | 0.40 | 0.40 |
| Mean | 0.86 | 0.33 |

(Source: Appendix -8)

Figure: 4.8
Investment on Shares and Debentures to Total Working Fund Ratio



Source: Table No.4.8

The table 4.8 and figure 4.8 shows that the investment on share and debenture to total working fund of KFL is in decreasing trend whereas these ratios of NHMF are in decreasing trend in all year except in 2066/067. The highest ratio of KFL is 1.52% and NHMF is 0.64% in 2062/063. And the lowest ratio of KFL is 0.40% in 2066/067 and of NHMF is 0.13% in 2065/066. From

the table we notice that mean ratio of KFL and NHMF are 0.86% and 0.33% respectively. KFL has higher ratio in every year and mean also, it means KFL has invested more money in risky assets out of its total assets than that of NHMF. In another word, NHMF has emphases on more govt. securities rather than investment on share and debenture.

4.3.1.3 Profitability Ratios

a) Return on Loan and Advances Ratio

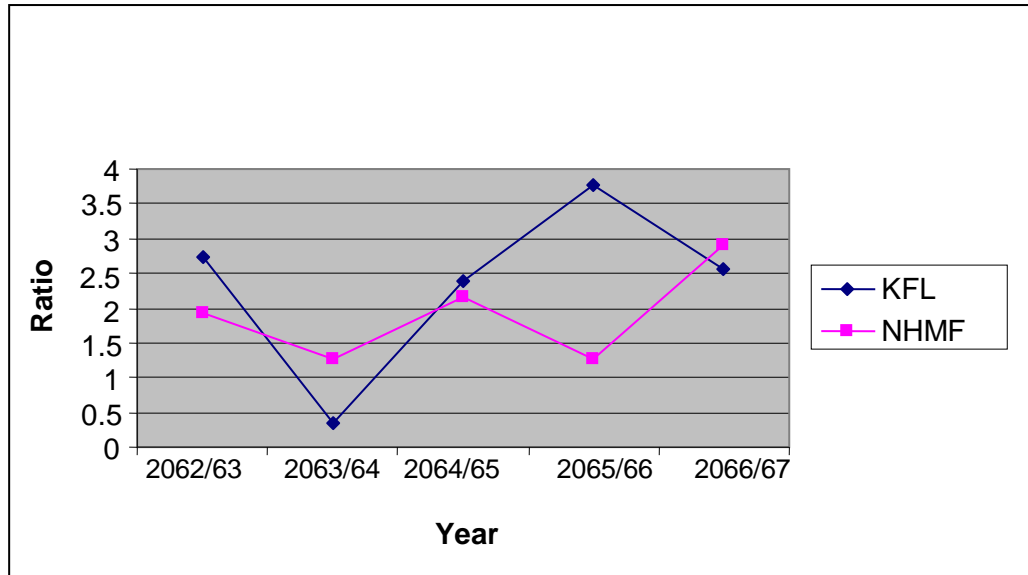
Return on loan and advances ratio measures the earning capacity of a commercial bank on its deposit mobilized on loan and advances higher the ratio greater will be the return and vice versa.

Table: 4.9
Return on Loan & Advances Ratio

| Year | Ratio (%) | |
|----------|-----------|------|
| | KFL | NHMF |
| 2062/063 | 2.73 | 1.93 |
| 2063/064 | 0.35 | 1.26 |
| 2064/065 | 2.38 | 2.15 |
| 2065/066 | 3.78 | 1.28 |
| 2066/067 | 2.56 | 2.92 |
| Mean | 2.36 | 1.91 |

(Source: Appendix-9)

Figure: 4.9
Return on Loan and Advances Ratio



Source: Table No.4.9

From the table 4.9 and figure 4.9, shows that return on loan and advances ratio of KFL and NHMF are in fluctuating trend. The highest ratio of KFL is 3.78% in the year 2065/066 and lowest ratio 0.35% in year 2063/064. The mean ratio is 2.36%. This shows the normal earning capacity of KFL in loan and advances. Whereas highest ratio of NHMF is 2.92% in year 2066/067 and lowest ratio is 1.26% in 2063/064. The mean ratio is 1.91% of NHMF. From the table we notice that KFL has higher mean ratio. So it seems successful by generating higher ratio. It can be concluded that KFL has better utilized the loan and advance for the profit generation in comparison with NHMF.

b) Return on Total Working Fund Ratio

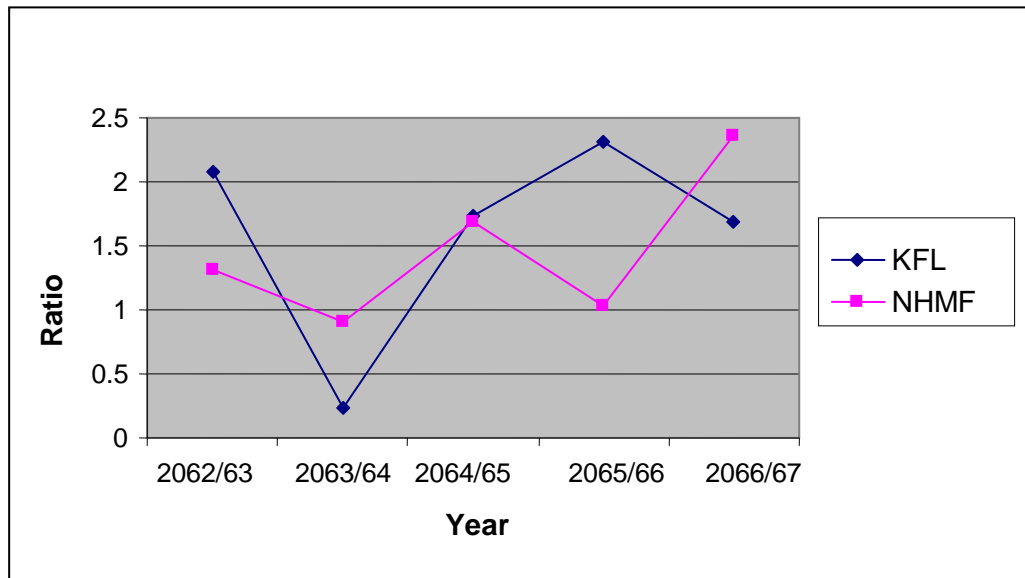
Return on total working fund ratio measures the earning capacity of a commercial bank on its deposit mobilized on total working fund, higher the ratio greater will be the return and vice versa.

Table: 4.10
Return on Total Working Fund Ratio

| Year | Ratio (%) | |
|----------|-----------|------|
| | KFL | NHMF |
| 2062/063 | 2.08 | 1.32 |
| 2063/064 | 0.24 | 0.90 |
| 2064/065 | 1.74 | 1.69 |
| 2065/066 | 2.32 | 1.03 |
| 2066/067 | 1.69 | 2.36 |
| Mean | 1.61 | 1.46 |

(Source appendix 10)

Figure: 4.10
Return on Total Working Fund Ratio



Source: Table No.4.10

From the table 4.10 we notice that ROA of both companies are in fluctuating trend however KFL seems successful in managing and utilizing the available assets in order to

generate revenue since its ROA ratio is higher than that of NHMF(i.e. 1.61%>1.46%)of total assets in an average.

c) Total Interest Earned to Total Working Fund Ratio

This ratio actually reveals the earning capacity of commercial banks by mobilizing its working fund. Higher the ratio higher will be the income as interest.

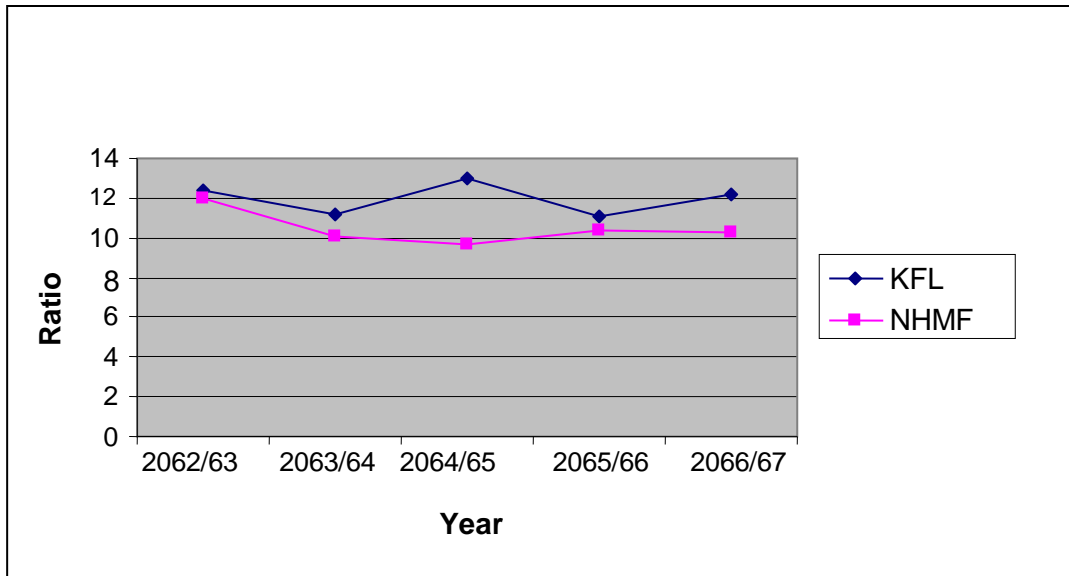
Table: 4.11
Total Interest Earned to Total Working Fund Ratio

| Year | Ratio (%) | |
|----------|-----------|-------|
| | KFL | NHMF |
| 2062/063 | 12.38 | 11.98 |
| 2063/064 | 11.14 | 10.04 |
| 2064/065 | 13.00 | 9.66 |
| 2065/066 | 11.04 | 10.41 |
| 2066/067 | 12.15 | 10.24 |
| Mean | 11.94 | 10.46 |

(Source: Appendix -11)

Figure: 4.11

Total Interest Earned to Total Working Fund Ratio



Source: Table No.4.11

The table 4.11 and figure 4.11 shows that both banks have fluctuating trend of ratio. However, KFL seems more conscious about managing its assets in order to earn more interest ratio because it has higher ratio in each year and average ratio is also higher. KFL has 11.94% average ratio whereas NHMF shows 10.46% average ratio. The mean ratio of KFL is more than that of NHMF. In comparison, KFL seems effective in earning interest to some extent although it has lower earning of interest income but it must break the decreasing trend in coming year.

d) Total Interest paid to Total Working Fund Ratio

This ratio actually reveals the paying capacity of commercial banks by mobilizing its working fund. Higher the ratio higher will be the paying capacity of interest.

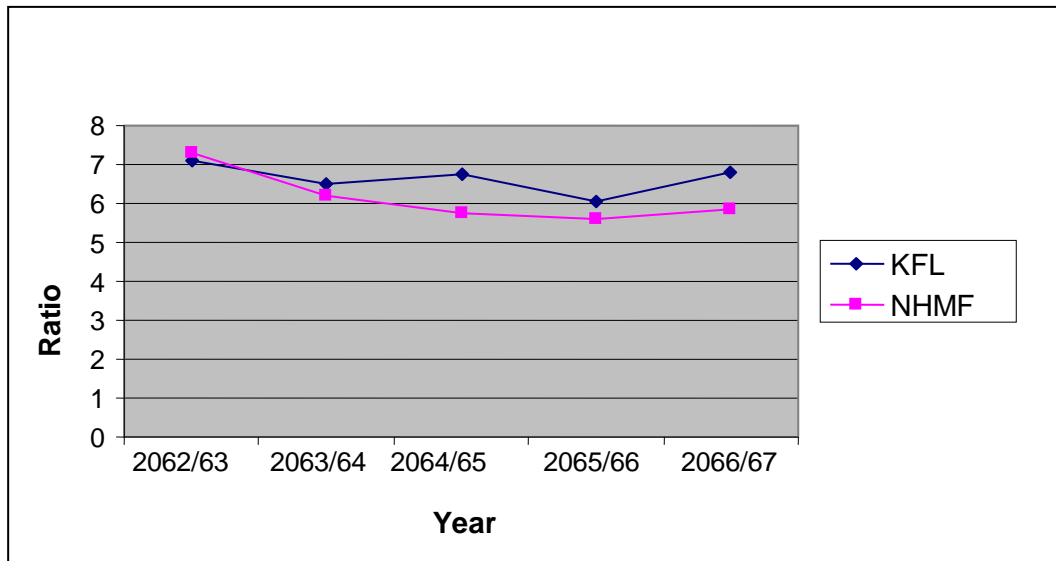
Table: 4.12

Total Interest Paid to Total Working Fund Ratio

| Year | Ratio (%) | |
|----------|-----------|------|
| | KFL | NHMF |
| 2062/063 | 7.10 | 7.32 |
| 2063/064 | 6.49 | 6.21 |
| 2064/065 | 6.73 | 5.74 |
| 2065/066 | 6.03 | 5.60 |
| 2066/067 | 6.81 | 5.85 |
| Mean | 6.63 | 6.14 |

(Source: Appendix -12)

Figure: 4.12
Total Interest Paid to Total Working Fund Ratio



Source: Table No.4.12

Above table 4.12 and figure 4.12 shows that KFL has fluctuating trend of ratio whereas NHMF has decreasing trend of ratio except in 2066/067. Due to the higher ratio in each year and average too of KFL, it seems less conscious about borrowing cheaper fund.

4.3.1.4 Measurement of Risk

For this study, following risk ratios are used to analyze and interpret the financial data and investment policy.

Credit Risk Ratio

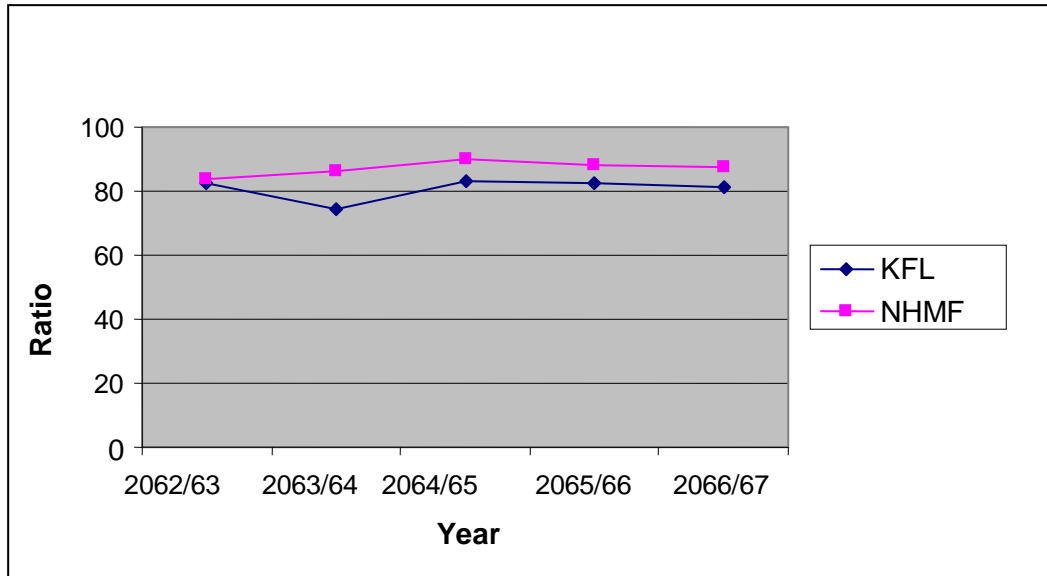
In general, credit risk ratio shows the proportion of non-performing assets in the total investment plus loan and advances of a bank.

Table: 4.13
Credit Risk Ratio

| Year | Ratio (%) | |
|----------|-----------|-------|
| | KFL | NHMF |
| 2062/063 | 82.37 | 83.87 |
| 2063/064 | 74.58 | 86.26 |
| 2064/065 | 83.32 | 90.19 |
| 2065/066 | 82.24 | 88.12 |
| 2066/067 | 81.43 | 87.76 |
| Mean | 80.79 | 87.24 |

(Source: Appendix-13)

Figure: 4.13
Credit Risk Ratio



Source: Table No.4.13

The above table shows that KFL and NHMF have the credit risk ratio in fluctuating trend. KFL has highest and lowest ratio of 83.32% and 74.58% in the year 2064/065 and 2063/064 respectively. And NHMF has the highest and lowest ratio of 90.19% and 83.85% in the year 2064/065 and 2062/063 respectively. The mean ratio of KFL is lower than that of NHMF (i.e.80.79 % < 87.24%).

4.1.1.5 Growth Ratio

Growth ratio denotes that how well the banks are preserving their economic or financial position. To calculate, check and analyze the expansion and growth of the selected bank the following ratios are calculated:

a) Growth Ratio of Total Deposits

To measure such growth percentage and analysis the following formula are used:

$$\text{Growth Percentage} = \frac{\text{Ending Value} - \text{Beginning Values}}{\text{Beginning Value}} \times 100$$

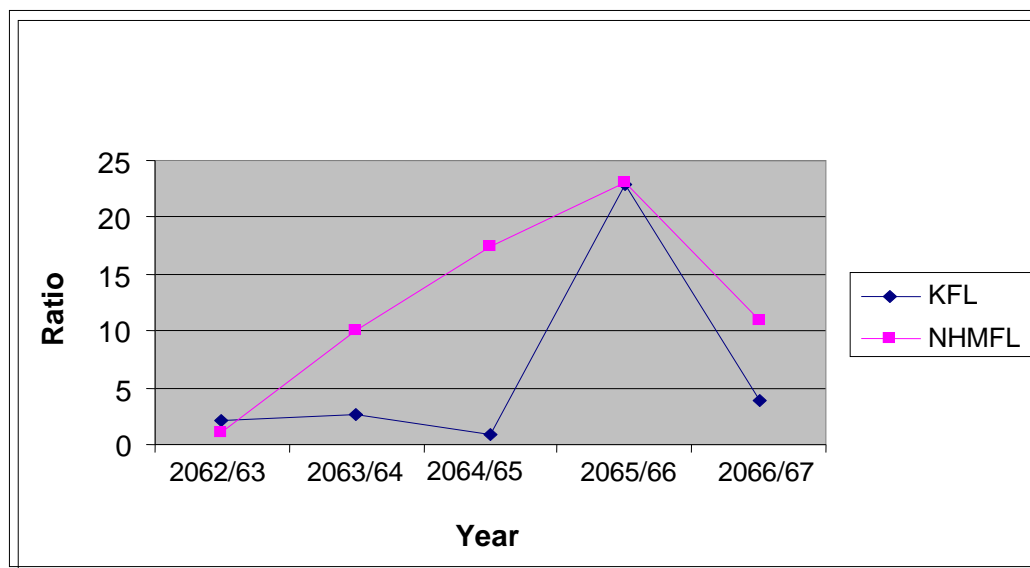
Table: 4.14
Growth Ratio of Total Deposits (in %)

| Name | Year and Growth Ratio | Average Growth Rate |
|------|-----------------------|---------------------|
|------|-----------------------|---------------------|

| | 2062/063 | 2063/064 | 2064/065 | 2065/066 | 2066/067 | (%) |
|-------------|----------|----------|----------|----------|----------|--------------|
| KFL | 2.15 | 2.59 | 0.95 | 22.83 | 3.84 | 6.47 |
| NHMF | 1.08 | 9.97 | 17.49 | 23.13 | 10.90 | 12.51 |

(Source: Appendix-14)

Figure: 4.14
Growth Ratio of Total Deposits



Source: Table No.4.14

The table 4.14 and figure 4.14 shows that KFL has fluctuating trend and NHMF has increasing trend of total deposits except in 2066/067. The growth ratio of KFL and NHMF are 6.47% and 12.51% respectively. The growth ratio of NHMF seems to be higher than that of KFL.

b) Growth Ratio of Loan and Advances

To measure such growth percentage and analysis the following formula are used:

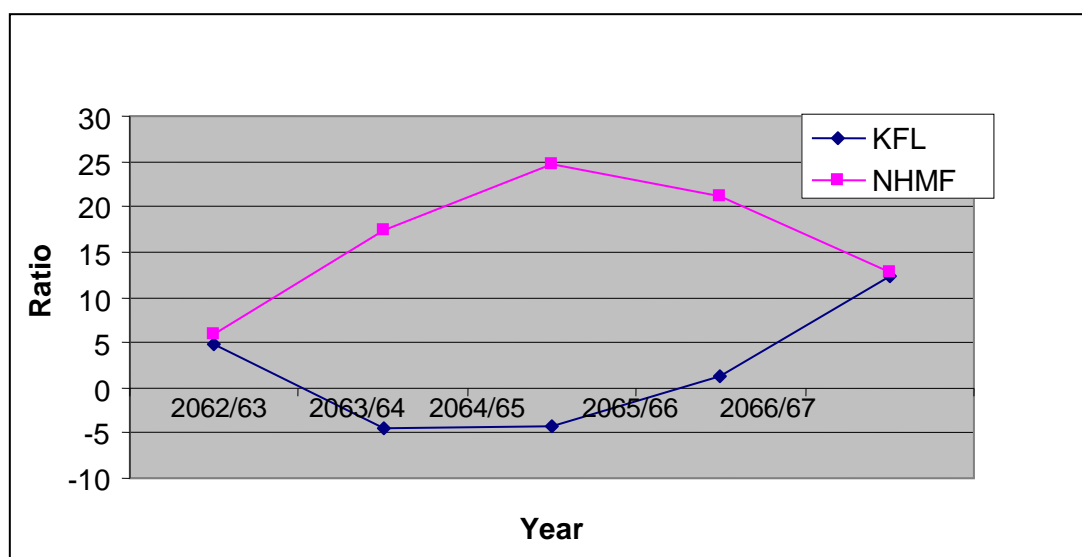
$$\text{Growth Percentage} = \frac{\text{Ending Value} - \text{Beginning Values}}{\text{Beginning Value}} \times 100$$

Table: 4.15
Growth Ratio of Loan and Advances (in %)

| Name | Year and Growth Ratio | | | | | Average Growth Rate (%) |
|-------------|-----------------------|----------|----------|----------|----------|-------------------------|
| | 2062/063 | 2063/064 | 2064/065 | 2065/066 | 2066/067 | |
| KFL | 4.82 | -4.51 | -4.30 | 1.20 | 12.38 | 1.92 |
| NHMF | 6.02 | 17.47 | 24.77 | 21.20 | 12.81 | 14.04 |

(Source: Appendix-15)

Figure: 4.15
Growth Ratio of Loan and Advances



Source: Table No.4.15

The above analysis shows that NHMF has higher growth rate than that of KFL (i.e. 14.04% > 1.92%). KFL has decreasing trend and NHMF has increasing trend in first three years and in decreasing trend in last two years growth rate of loans and advances.

c) Growth Ratio of Total Investment

To measure such growth percentage and analysis the following formula are used:

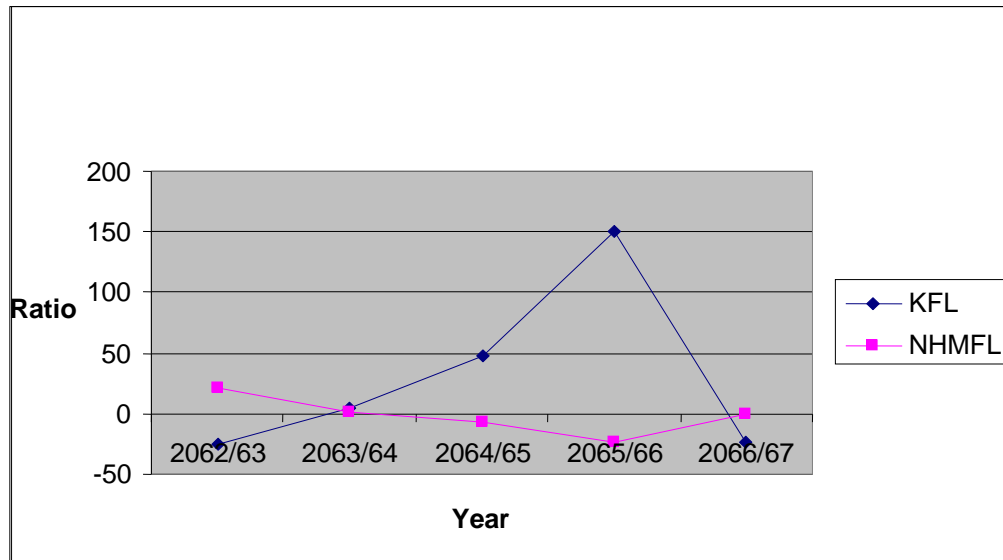
$$\text{Growth Percentage} = \frac{\text{Ending Value} - \text{Beginning Values}}{\text{Beginning Value}} \times 100$$

Table: 4.16
Growth Ratio of Total Investment

| Name | Year and Growth Ratio | | | | | Average Growth Rate(%) |
|-------------|-----------------------|----------|----------|----------|---------|------------------------|
| | 2062/063 | 2063/064 | 2064/06 | 2065/06 | 2066/06 | |
| | | | 5 | 6 | 7 | |
| KFL | -25.82 | 5.15 | 47.10 | 149.97 | -22.76 | 30.73 |
| NHMF | 21.37745 | 1.087853 | -6.82788 | -22.8039 | 0.36046 | -1.36 |

(Source: Appendix -16)

Figure: 4.16
Growth Ratio of Total Investment



Source: Table No.4.16

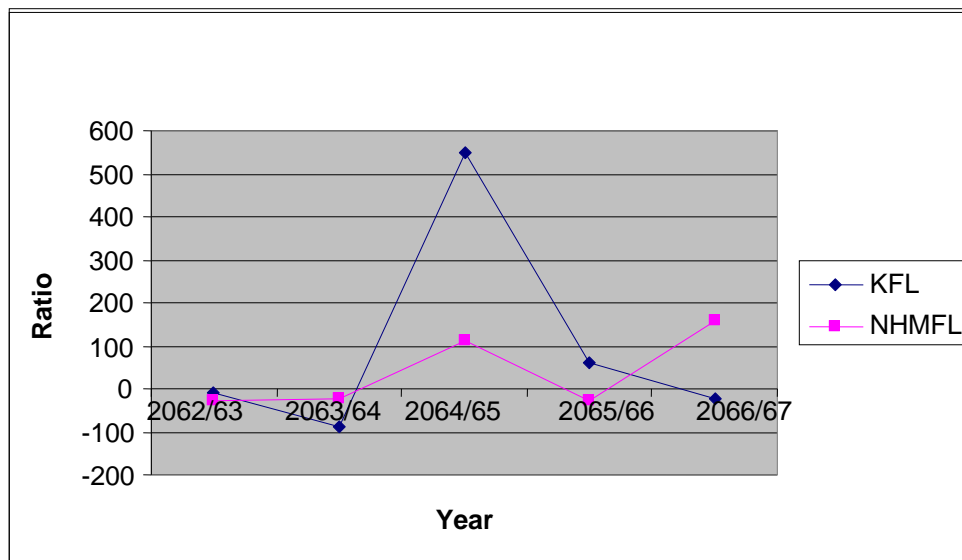
The growth rate of total investment of KFL seems to be higher than that of NHMF i.e. 30.73% > -1.36%. KFL has negative trend in 1st & last period and in increasing trend in remaining years but NHMF has decreasing and negative trend of growth ratio of investment.

Table: 4.17
Growth Ratio of Net Profit

| Name | Year and Growth Ratio | | | | | Average Growth Rate (%) |
|-------------|-----------------------|----------|----------|----------|----------|-------------------------|
| | 2062/063 | 2063/064 | 2064/065 | 2065/066 | 2066/067 | |
| KFL | -8.64931 | -87.7253 | 548.7365 | 60.7123 | -23.6727 | 97.8 |
| NHMF | -27.4558 | -23.503 | 113.1471 | -27.9109 | 157.1611 | 38.29 |

(Source: Appendix-17)

Figure: 4.17
Growth Ratio of Net Profit



Source: Table No.4.17

From the table 4.17 we can conclude that KFL has growth rate of 97.8% and NHMF has the growth rate of 38.288%. It seems that KFL has higher growth rate than that of NHMF. Both banks followed a fluctuating trend on the growth ratio of net profit.

4.4 Statistical Analysis

4.4.1. Coefficient of Correlation

a) Correlation between Total Deposits and Total Investment

The following table describes the relationship between total deposits and total investment of KFL and NHMF of five years study period. In this case, total deposits are independent variables say (X) and total investment is dependent variable say (Y).

Table: 4.18
Correlation between Total Deposits and Total Investment

| Name | Base of Evaluation | | | |
|-------------|--------------------|----------------|--------|----------|
| | r | R ² | P.E. | 6 x P.E. |
| KFL | 0.929 | 0.863 | 0.0413 | 0.248 |
| NHMF | -0.962 | 0.925 | 0.023 | 0.136 |

(Source: Appendix-18)

The table 4.18 shows that coefficient of correlation between deposits and investment of KFL is 0.929 i.e. high degree of positive correlation between these two variables. And the value of coefficient of determination (R²) is also 0.863 which means 86.3% of investment decision depend upon deposit and only 13.7% investment is depend upon other variables. Similarly probable error is 0.0413 and 6 x P. E. is 0.248 which shows that R² is highly greater than 6 x P. E. Therefore, it reveals that relationship between deposits and investment is significant i.e. correlation is certain. Likewise, in case of NHMF, coefficient of correlation between investment and deposit (r) is -0.962 that means there is a high degree of Negative correlation between two variables. The value of coefficient of determination (R²) is also 0.023 which means only 2.3% of investment decision depend upon deposit and rest 97.7% investment is depend upon other variables. Similarly probable error is 0.023 and 6 x P. E. is 0.136 which shows that R² is just greater than 6 x P. E. Therefore it reveals that relationship between deposit and investment is significant i.e. correlation is certain.

b) Correlation between Total Deposits and Loans and Advances

The following table describes the relationship between total deposits and loan and advances of KFL and NHMF with comparatively under five-year period. In this case, total deposits are independent variable say (X) and loan and advances is dependent variable say (Y).

Table: 4.19
Correlation between Total Deposits and Loans and Advances

| Name | Base of Evaluation | | | |
|------|--------------------|----------------|------|----------|
| | r | R ² | P.E. | 6 x P.E. |

| | | | | |
|-------------|-------|-------|--------|-------|
| KFL | 0.305 | 0.093 | 0.274 | 1.64 |
| NHMF | 0.996 | 0.992 | 0.0024 | 0.015 |

(Source: Appendix-19)

From the table 4.19 we can find that the coefficient of correlation between deposits and loan and advances of KFL and NHMF are 0.305 and 0.996 respectively. This shows the positive relationship between these two variables i.e. loan and advances and deposits of both banks. By considering coefficient of determination (R^2), the value of R^2 is 0.093 in case of KFL and 0.992 in case of NHMF.

The value of R^2 of KFL is 0.093, which means only 9.3% of loan and advances decision is determined by deposit and rest 90.7% loan and advances depend upon other variables. The value of R^2 of NHMF is 0.992, which means that 99.2% of loan and advances is determined by deposit and only 0.8% loan and advances depend upon other variables.

In view of the probable error of KFL and NHMF, the value of R^2 of KFL is less than the 6 times of P.E. (i.e. $1.64 > 0.093$) which indicates there is significant relationship between deposits and loan and advances. Similarly value of R^2 of NHMF greater than the 6 times of P.E. (i.e. $0.992 > 0.015$) insignificant relationship between deposit and loan and advances.

4.4.2. Trend Analysis

Here, trend analyses of various Ratios are projected for the five years. The measure of trend analysis shows the behavior of given variables in series of time. This trend analysis is carried out to see average performance of the Finance companies for next five years.

Sample of trend analysis are as follows

- Loan and Advance to Total Deposit
- Total Investment to Total Deposit Ratio
- Return on Loan and Advance Ratio

a) Trend Analysis of Loan and advance to Total Deposit Ratio

In this topic an effort has been made to analyze the trend of loan and advances to total deposits ratio of KFL and NHMF with comparatively of five years study period and projection of next five years. The following table describes the trend values of loan and advances to total deposits ratio of KFL and NHMF.

$$Y = a + b x$$

Where,

Y = dependent variable, a =Y- intercept, b = slope of trend line or annual growth rate,

X = deviation from some convenient times.

The following graph helps to show the trend lines of total deposit for the projected five years.

The equations are

$$Y_c = 89.54 - 6.522x \text{ of KFL}$$

$$Y_c = 90.177 + 2.643x \text{ of NHMF}$$

Table: 4.20

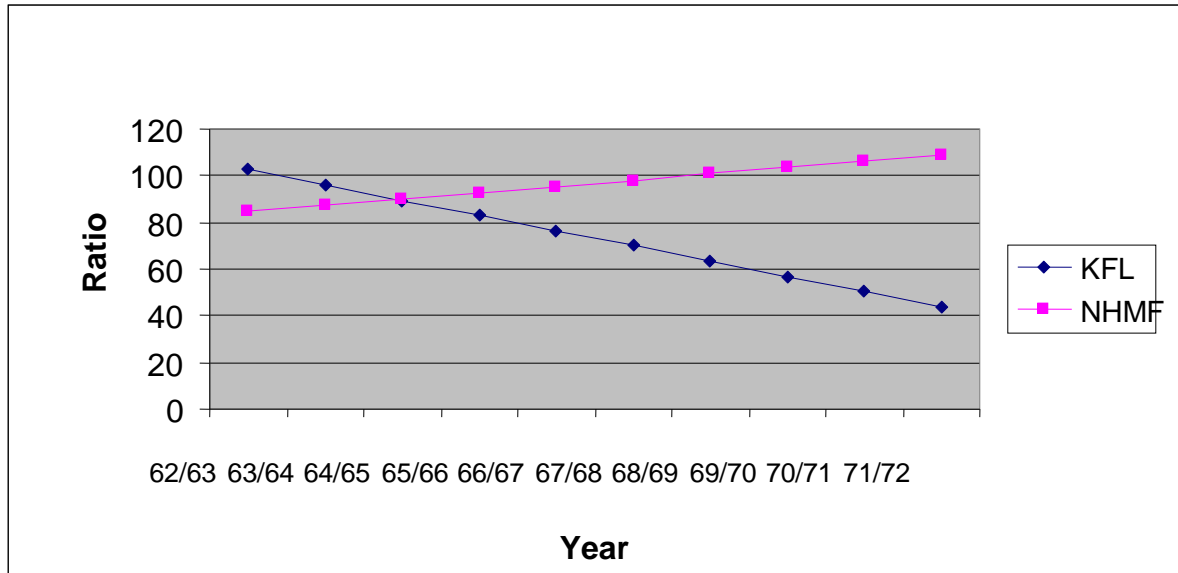
Trend Analysis of Loan and advance to Total Deposit (in %)

| Year | KFL | NHMF |
|-------------|------------|-------------|
| 2062/063 | 102.584 | 84.884 |
| 2063/064 | 96.062 | 87.527 |
| 2064/065 | 89.54 | 90.17 |
| 2065/066 | 83.018 | 92.813 |
| 2066/067 | 76.496 | 95.456 |
| 2067/068 | 69.974 | 98.099 |
| 2068/069 | 63.452 | 100.742 |
| 2069/070 | 56.93 | 103.385 |
| 2070/071 | 50.408 | 106.028 |
| 2071/072 | 43.886 | 108.671 |

(Source: Appendix -20)

Figure: 4.18

Trend Analysis of Loan and Advance to Total Deposit



Source: Table No.4.18

Above Figure 4.18 shows that Trend of Loan and advance to Total Deposit of KFL is decreasing. Its means total deposits are not utilize efficiently. The Trend of Loan and advance to Total Deposit of NHMF are slightly increasing up warding. It mean total deposit utilizing in loan and advance so trend of NHMF has smooth and regular up warding position.

b) Total Investment to Total Deposit Ratio

The heading analyze the trend of total investment to total deposits ratio of KFL and NHMF with comparatively under five years study period and projects the trend of coming five years. The following table describes the trend values of total investment to total deposits ratio of KFL in comparison to NHMF for ten years. The following graph helps to show the trend lines of total deposit for the projected five years. The equations are

$$Y_c = 14.848 + 3.818x \text{ of KFL}$$

$$Y_c = 13.54 - 3.147 X \text{ of NHMF}$$

Table: 4.21

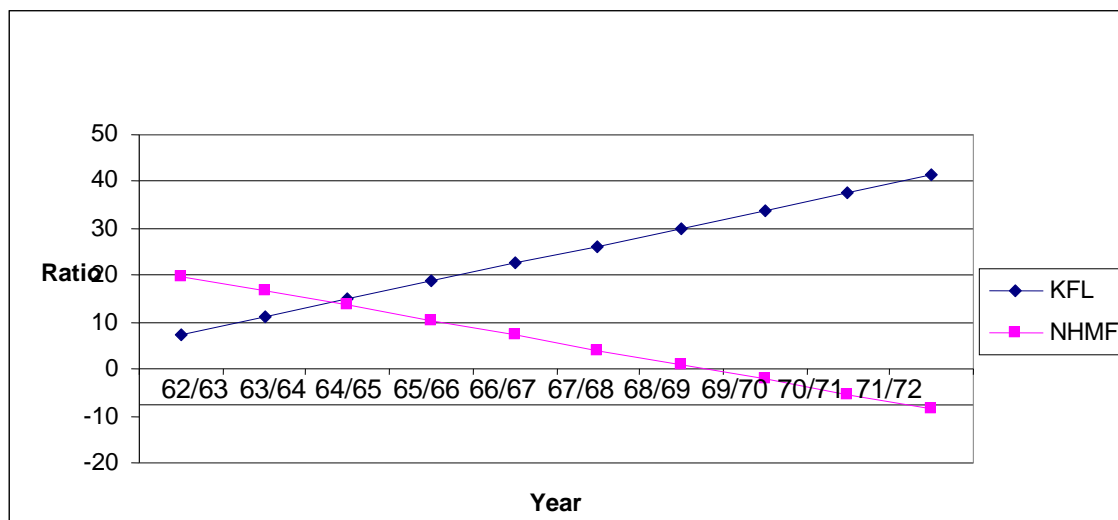
Trend Analysis of Total Investment to Total Deposit Ratio (in %)

| Year | KFL | NHMF |
|----------|--------|--------|
| 2062/063 | 7.212 | 19.84 |
| 2063/064 | 11.03 | 16.693 |
| 2064/065 | 14.848 | 13.546 |
| 2065/066 | 18.666 | 10.399 |
| 2066/067 | 22.484 | 7.252 |

| | | |
|----------|--------|--------|
| 2067/068 | 26.302 | 4.105 |
| 2068/069 | 30.12 | 0.958 |
| 2069/070 | 33.938 | -2.189 |
| 2070/071 | 37.756 | -5.336 |
| 2071/072 | 41.574 | -8.483 |

(Source: Appendix -21)

Figure: 4.19
Trend Analysis of Total Investment to Total Deposit



Source: Table No.4.19

Figure 4.19 show that the trend of total investment to total deposit of KFL is slightly increasing trend. Its mean total deposit utilized on total investment. The trend of total investment to total deposit ratio of NHMF is decreasing trend it indicate that the income from total investment to total deposit is decreasing trends.

c) Trend Analysis of Return on loan and advance ratio:

The headings analyze the trend Return on loan and advance ratio of KFL and NHMF with comparatively, under five years study period and projects the trend of coming five years. The following table describes the trend values of the trend Return on loan and advance ratio of KFL in comparison to NHMF for ten years.

The following graph helps to show the trend lines of total deposit for the projected five years. The equations are

$$Y_c = Y_c = 2.36 + 2142.8x \text{ of KFL}$$

$$Y_c = 1.908 + 0.2 X \text{ of NHM}$$

Table: 4.22
Trend Analysis of return on loan and advance ratio (in %)

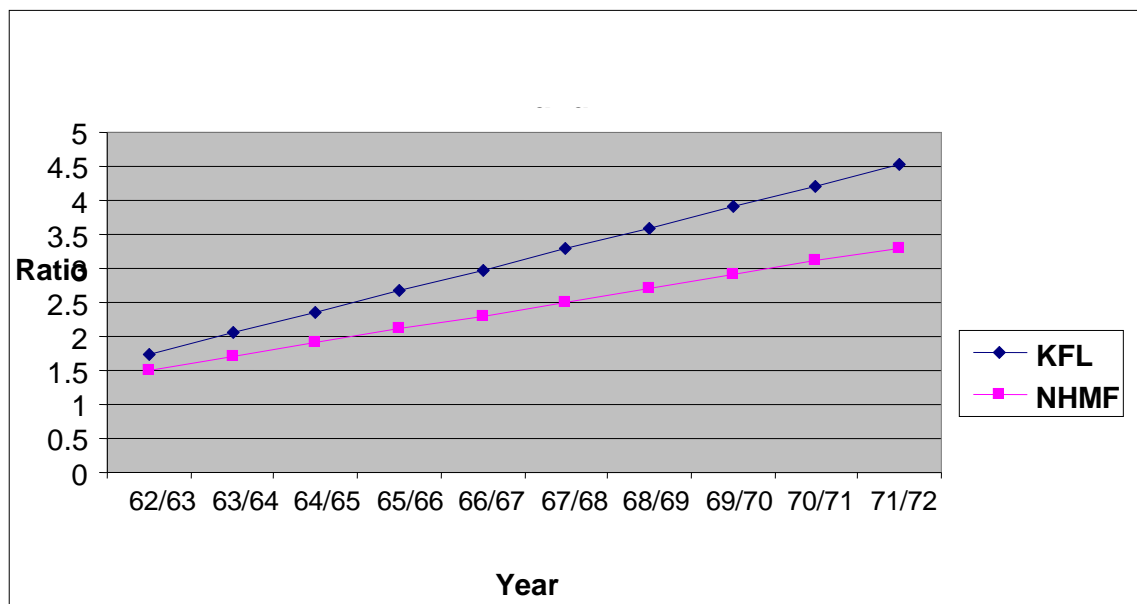
| Year | KFL | NHMF |
|-------------|------------|-------------|
| 2062/063 | 1.742 | 1.508 |
| 2063/064 | 2.051 | 1.708 |
| 2064/065 | 2.36 | 1.908 |
| 2065/066 | 2.669 | 2.108 |
| 2066/067 | 2.978 | 2.308 |
| 2067/068 | 3.287 | 2.508 |
| 2068/069 | 3.596 | 2.708 |
| 2069/070 | 3.905 | 2.908 |
| 2070/071 | 4.214 | 3.108 |
| 2071/072 | 4.523 | 3.308 |

(Source: Appendix -22)

The Table 4.22 and figure 4.20 shows that the trend of return on loan and advance ratio of KFL is highly increasing trend. It means return from loan and advance is little higher than the NHMF. The trend of return on loan and advance ratio of NHMF has smooth and regular up

ward increasing trend. Hence return from loan and advance of both finance companies is positive and increasing trend.

Figure: 4.20
Trend Analysis of Return on Loan and Advance Ratio



Source: Table No.4.20

4.5 Major Findings of the Study

From the analysis of the data collected from various sources following findings have been made.

- The mean ratio of cash and bank balance to total deposits of KFL is higher than NHMF. It means the liquidity position of KFL is higher than NHMF. It shows the higher

position regarding the meeting of demand of its customer on their deposit at any time than NHMF.

- The average study of cash and bank balance to current assets ratio of KFL is higher than NHMF. It shows that NHMF has taken more risk to meet the daily requirement of its customer's deposit than KFL.
- NHMF has invested more portions of current assets on government securities than KFL according to average study. It means NHMF is more sensitive in investment in productive sector than KFL. It means NHMF has invested more money in risk free assets than that of KFL. In another word KFL has emphasizes on more loans and advances and other short term investment than investment in govt. securities.
- In average KFL has mobilized 89.54% of its collected deposit in loan and advances that is slightly less than that of NHMF.
- According to NRB directives above 70% to 90% of loan and advances to total deposit ratio is able to better mobilization of collected deposit. So all of the year both KFL and NHMF has met the NRB requirement or it has properly utilized its deposit to provide loan.
- The mean ratio of the total investment to total deposit KFL and NHMF are 14.85% and 13.55% respectively so KFL has higher ratio. It signifies KFL has successfully allocated its deposit in investment portfolio in comparison with NHMF.
- loan and advances to total assets ratio of KFL is in fluctuating trend whereas ratio of NHMF is in increasing trend While observing their ratios; NHMF is better mobilizing of fund as loan and advances and it seems quite successful in generating higher ratio in each year.
- Mean ratio of investment on government securities to total working fund of KFL and NHMF are 0.21% and 3.25%. Respectively. NHMF has higher ratio in every year and mean too. It means NHMF has invested more money in risk free assets out of its total assets than that of KFL. In another word KFL has emphasizes on more loans and advances and other short term investment than investment in govt. securities.
- Mean ratio of investment on share and debenture on working fund of KFL and NHMF are 0.86% and 0.33%. Respectively. KFL has higher ratio in every year and mean too. It means KFL has invested more money in risky assets out of its total assets than that of NHMF. In another word NHMF has emphasizes on more govt securities rather than investment on share and debenture.
- KFL has higher mean ratio of return on loan and advances. So it seems successful by generating higher ratio. It can be concluded that KFL has better utilized the loan and advance for the profit generation in comparison with NHMF.

- ROA of both companies are in fluctuating trend however KFL seems successful in managing and utilizing the available assets in order to generate revenue since its ROA ratio is higher than that of NHMF (i.e. $1.61\% > 1.46\%$) of total assets in an average.
- KFL seems more conscious about managing its assets in order to earn more interest ratio because it has higher ratio in each year and average ratio is higher. KFL has 11.94% average ratio whereas NHMF shows 10.46% average ratio. The mean ratio of KFL is more than that of NHMF. In comparison, KFL seems effective in earning interest to some extent although it has lower earning of interest income but it must break the decreasing trend in coming year.
- KFL has fluctuating trend of interest paid to working fund ratio whereas NHMF has decreasing trend of ratio except in 2066/067. Due to the higher ratio in each year and average too of KFL, it seems less conscious about borrowing cheaper fund
- In case of credit risk ratio, KFL has the lower risk than NHMF.
- The growth ratio on deposit of NHMF seems to be higher than that of KFL. The growth ratio of KFL and NHMF are 6.47% and 12.51% respectively.
- The above analysis shows that NHMF has higher growth rate of loan and advances than that of KFL (i.e. $14.04\% > 1.92\%$).
- NHMF seems weak in increasing total investment in comparison to KFL. The growth rate of NHMF is -1.36% but KFL is 30.73%.
- The yearly growth rate of net profit of KFL is better in comparison to NHMF. NHMF has the growth rate of 38.29% and KFL has 97.80%.
- KFL has the higher degree of correlation coefficient between deposit and investment than NHMF. It states that KFL is in better position in the mobilization of deposits as investment in comparison to NHMF. There is significant relationship between correlation of coefficient of deposit and investment of KFL and but insignificant relationship between correlation of coefficient of deposit and investment of NHMF.
- Correlation coefficient between deposit and loan and advances of KFL is lower than NHMF. It indicates that NHMF is successfully mobilizing its deposits as loan and advances. There is significant relationship between correlation coefficient of deposits and loan and advances KFL and NHMF.
- The Trend of Loan and advance to Total Deposit of KFL is decreasing. Its means total deposits are not utilize efficiently. The Trend of Loan and advance to Total Deposit of NHMF are slightly increasing up warding. It mean total deposit utilizing in loan and advance so trend of NHMF has smooth and regular up warding position.
- The trend of total investment to total deposit of KFL is slightly increasing trend. Its mean total deposit utilized on total investment. The trend of total investment to total

deposit ratio of NHMF is decreasing trend it indicate that the income from total investment to total deposit is decreasing trends.

- The trend of return on loan and advance ratio of KFL is highly increasing trend. It means return from loan and advance is little higher than the NHMF. The trend of return on loan and advance ratio of NHMF has smooth and regular up ward increasing trend. Hence return from loan and advance of both finance companies is positive and increasing trend.

CHAPTER– V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This is final chapter of this research work, so that in this chapter all of findings are presented as in summary, conclusions, and recommendations of research work.

Government makes a budget and implements it in country. It is also invest of capital; in fact, the development of economy of the country is result of substantial investment in such productive sectors. In order to boost up the economy and social life. It is extremely essential to have a mechanism through which small amount of saving can be collected and transferred into effective uses. Hence, finance company pays a vital role and thus contributes in the economic development of nation. Financial institutions and banks can provide such services. Here the selected study is credit management of selected financial institutions. Financial institution includes banks, finance companies, co-operative organizations and insurance companies. All of them do contribute something to the economy of the country. Financial institutions play a vital role in the proper functioning of an economy. KFL has excess liquidity rather than that of NHMF because of poor investment opportunities. NHMF has taken more risk to meet the daily requirement of its customer's deposit than KFL as it has lower cash and bank balance to current ratio. NHMF has made enough investment in government securities than KFL. In another word KFL has emphases on more loans and advances and other short term investment than investment in govt. securities. In view of assets management side of two companies, it can be concluded that KFL is in slightly weak position in mobilizing the collected deposits as loan and advances. However, in all year both companies have met the NRB requirement in regarding utilization of deposit to provide loan. KFL has successfully allocated its deposit in investment portfolio in comparison with NHMF. Summary shows the research work in short point listed and main theme of the study is shown in brief. Development of any country depends on capital

invest and mobilize it in productive sectors like as, industry, trade (export and import) and business. Among them, banking sector plays an important role in the economic development of the country. Finance companies are one of the vital aspects of this sector, which deals in the process of channelizing the available resources in the needed sectors. It is the intermediary between the deficit and surpluses of financial resource.

Every financial institution collects funds from different sources and mobilizes it into the different sectors, which is always surrounded by risk. Credit risk is one part of that risk. Credit risk is the potential financial loss resulting from the failure of customer to pay their debt in time. As in order from, credit risk is crucial part of risk arises among in the banking industry. The study had been carried based on finance companies i.e. KFL and NHMF for credit risk management. The major objective for the study was. To analyze the lending position of finance companies in Nepal. To determine the impact of deposit in liquidity and its effect on lending practices of finance companies. To evaluate strength and weakness in credit risk management of finance companies. To provide necessary suggestions and recommendations for concerned parties. at last .Comparatively study about credit management of KFL and NHMF to get actual position in particular study area.

To achieve the objectives of the study, descriptive an analytical research design has been used. Some statistical and financial tools have also been applied to examine facts. Many descriptive techniques have been adopted to evaluate credit risk of KFL and compare it with NHMF Limited. The study is based on secondary data. So the descriptive and analytical research designs have been used. In this study only two finances companies have been taken as sample. All the finance companies in Nepal are the population of the study. The samples taken are Katmandu finance Limited and Nepal housing and merchant Ltd. The research is based on secondary source of data. The data relating to the investment, deposit, loan and advances, assets and profit are directly obtained from the balance sheet and Profit and Loss A/C of the concerned company's annual reports. Supplementary data and information are collected from number of institution and authoritative sources like Nepal Rastra Bank, Security Exchange Board, Nepal Stock Exchange Ltd., Ministry of Finance, Budget speech of different fiscal years, Economic survey and National Planning Commission etc. To achieve the objectives of the study various financial and statistical tools have been used. After collecting the data from the different sources, it is analyzed by using financial tools and statistical tools. Findings are drawn by applying various financial tools namely liquidity ratio, assets management ratio, profitability ratio, growth ratio and risk ratio. In the same way, statistical tools have been used namely mean, coefficient of correlation and least square method trend.

5.2 Conclusions

From the viewpoint of profitability, KFL has higher mean ratio of return on loan and advances. So it seems successful by generating higher ratio. It can be concluded that KFL has better utilized the loan and advance for the profit generation in comparison with NHMF. KFL seems successful in managing and utilizing the available assets in order to generate revenue since its ROA ratio is higher than that of NHMF. KFL seems effective in earning interest to some extent although it has lower earning of interest. Due to the higher ratio in each year and average too of KFL, it seems less conscious about borrowing cheaper fund. In case of credit risk ratio, KFL has the lower risk than NHMF.

The recovery of the loan is most challenging job for banks. Increasing in non-performing assets leads to failure of commercial bank in recovery of loan. Therefore it has been better that for both they should follow liberal lending policy when sanction of loan and advances have been done with adequate guarantee and should implement sound collection policy with proper identification of creditworthiness of customers, continual follow up and legal procedure if required.

It can recommend to increase their investment on shares and debentures on different sectors to earn more interest and dividend income to increase its net profit. KFL seems less conscious about borrowing cheaper fund. Therefore, it should give more priority on this matter. From the analysis of the liquidity position of KFL and NHMF, liquidity position of KFL is higher than NHMF. It shows the higher position regarding the meeting of demand of its customer on their deposit at any time than NHMF. NHMF has invested more money in risk free assets out of its total assets than that of KFL has invested more money in risky assets. Out of its total assets than that of NHMF .it has made enough investment in government securities than KFL. In another word KFL has emphasizes on more loans and advances and other short term investment than investment in govt. securities.

From the growth ratio of total deposits, it can be concluded that NHMF has more collection capacity than NABIL. Growth rate of NHMF on loan and advances is better in comparison to HBL. Growth rate of total investment of KFL seems good than HBL similarly KFL has better position than that of NHMF with respect to growth rate of net profit. Correlation coefficient between deposits and total investment and deposits and loan and advances of KFL and NHMF indicates the positive relationship or there is high degree of positive correlation. In most of the cases, it has been found that loan and advances and investment decision depends upon other variables. From the calculation of probable error it can be concluded that the relationship between deposits and investment and loan and advances and deposits of both companies is significant.

By considering the trend values, Trend of Loan and advance to Total Deposit of KFL is decreasing. Its means total deposits are not utilize efficiently. The Trend of Loan and advance to Total Deposit of NHMF are slightly increasing up warding. It means total deposit utilizing as loan and advance of NHMF has smooth and regular up warding position. Trend of total investment to total deposit of KFL is slightly increasing trend. The trend of total investment to total deposit ratio of NHMF is decreasing trend. Trend of return on loan and advance ratio of KFL is highly increasing trend. It means return from loan and advance is little higher than the NHMF. The trend of return on loan and advance ratio of NHMF has smooth and regular up ward increasing trend. Hence return from loan and advance of both finance companies is positive and increasing trend.

5.3 Recommendations

Based on the presentation and analysis of data and major of this study, following recommendations has been made:

- The ratio of cash and bank balance to total deposits and current assets of KFL is higher than NHMF. It means NHMF should increase its liquidity position on the other hand KFL has higher idle cash and bank balance. It may decrease over all profit of bank. So for KFL is recommended to activate its idle cash and bank balance in productive sector.
- Both institutions are suggested not to be surrounded and limited within the interest and status of big clients like multinational companies, manufacturer and exporter. The banks have to preserve the banking and saving habits of the low-income people of the kingdom. Because the main source of the collecting deposits of commercial banks are from public sector.
- It is also recommended to collect more funds as deposits through different schemes from different level of public, through assortment of deposit schemes and facilities like housing schemes, education loan, vehicle loan, and deposit for housewife house maker etc.
- As for KFL the bank has higher cash and bank balance than NHMF. Therefore, it is recommended to invest in government securities instead of keeping idle.
- It should be better for financial institutions; to invest in many securities issued by government is free of risk, liquid and highly saleable in the marketplace. By doing so the institution can be, improve in his goodwill among its investors.
- Both companies have earned more income from interest income which is not good for long term view. So both have to increase their revenue through other banking activity for long-term survival and to avoid bad debt risk.

- KFL has successfully allocated its deposit in investment portfolio in comparison with NHMF. So NHMF should successfully allocate its deposit in invest portfolio.
- Both banks should be careful in increasing profit of the bank to maintain the confidence of shareholders, depositors and all its customers. NHMF profitability position is not better than that of KFL. So, NHMF is strongly recommended to utilize risky assets and shareholders fund to gain high amount of profit.
- NRB has given directives to financial institution to invest their certain percentage of investment in deprive and priority sector. Both companies have earned profit from profitable and private sector. Therefore, they are recommended to strictly follow up the directives issued by NRB and should make investment on public utilities sector like health, sanitation, education, drinking water, agriculture etc.

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Appendix - 1

(A). Liquidity Ratio:

(1) Cash and bank balance to total deposit ratio.

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

(Rs. In thousands)

| Year | Cash and bank balance of KFL | Total deposit of KFL | Cash and bank balance of NHMF | Total deposit of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|------------------------------|----------------------|-------------------------------|-----------------------|---------------------|----------------------|
| 2062/063 | 16337 | 239779 | 24216 | 459920 | 6.81 | 5.27 |
| 2063/064 | 32066 | 245981 | 27856 | 505766 | 13.04 | 5.51 |
| 2064/065 | 34036 | 248324 | 23598 | 594204 | 13.71 | 3.97 |
| 2065/066 | 48398 | 305008 | 32120 | 731670 | 15.87 | 4.39 |
| 2066/067 | 54832 | 316730 | 50296 | 811421 | 17.31 | 6.20 |
| Mean | | | | | 13.35 | 5.07 |

Appendix - 2

(2) Cash and bank balance to current assets ratio

$$\text{Cash and Bank Balance to Current Assets ratio} = \frac{\text{Cash and Bank Balance}}{\text{Current Assets}}$$

(Rs. In thousands)

| Year | Cash and bank balance of KFL | Current assets of KFL | Cash and bank balance of NHMF | Current assets of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|------------------------------|-----------------------|-------------------------------|------------------------|---------------------|----------------------|
| 2062/063 | 16337 | 38884 | 24216 | 46076 | 42.01 | 52.56 |
| 2063/064 | 32066 | 54186 | 27856 | 65078 | 59.18 | 42.80 |
| 2064/065 | 34036 | 40452 | 23598 | 82098 | 84.14 | 28.74 |
| 2065/066 | 48398 | 52357 | 32120 | 55876 | 92.44 | 57.48 |
| 2066/067 | 54832 | 66734 | 50296 | 53456 | 82.17 | 94.09 |
| Mean | | | | | 71.99 | 55.14 |

Appendix - 3

(3) Investment on Govt. securities to current assets ratio

$$\text{Investment on Govt. Securities to Current Assets} = \frac{\text{Investment on Govt. Securities}}{\text{Current Assets}}$$

(Rs. In thousands)

| Year | Invest. on Govt. securities of KFL | Current assets of KFL | Invest. on Govt. securities of NHMF | Current assets of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|------|------------------------------------|-----------------------|-------------------------------------|------------------------|---------------------|----------------------|
|------|------------------------------------|-----------------------|-------------------------------------|------------------------|---------------------|----------------------|

| | | | | | | |
|-------------|------|-------|-------|-------|-------------|--------------|
| | | | NHMF | | | |
| 2062/063 | 1750 | 38884 | 28556 | 46076 | 4.50 | 61.98 |
| 2063/064 | 1750 | 54186 | 27500 | 65078 | 3.23 | 42.26 |
| 2064/065 | 0 | 40452 | 27500 | 82098 | 0 | 33.50 |
| 2065/066 | 0 | 52357 | 12500 | 55876 | 0 | 22.37 |
| 2066/067 | 0 | 66734 | 12500 | 53456 | 0 | 23.38 |
| Mean | | | | | 1.55 | 36.70 |

Appendix - 4

(B). Assets Management Ratio:

(1) Loan and Advance to total deposit:

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

(Rs. In thousands)

| Year | Loan and advances of KFL | Total deposit of KFL | Loan and advances of NHMF | Total deposit of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|--------------------------|----------------------|---------------------------|-----------------------|---------------------|----------------------|
| 2062/063 | 248104 | 239779 | 380104 | 459920 | 103.47 | 82.65 |
| 2063/064 | 236917 | 245981 | 446521 | 505766 | 96.32 | 88.29 |
| 2064/065 | 226720 | 248324 | 557109 | 594204 | 91.30 | 93.76 |
| 2065/066 | 229436 | 305008 | 675197 | 731670 | 75.22 | 92.28 |
| 2066/067 | 257846 | 316730 | 761720 | 811421 | 81.41 | 93.87 |
| Mean | | | | | 89.54 | 90.17 |

Appendix - 5

(2) Total investment to total deposit:

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

(Rs. In thousands)

| Year | Total investment of KFL | Total deposit of KFL | Total investment of NHMF | Total deposit of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|-------------------------|----------------------|--------------------------|-----------------------|---------------------|----------------------|
| 2062/063 | 20186 | 239779 | 88523 | 459920 | 8.42 | 19.25 |
| 2063/064 | 21226 | 245981 | 89486 | 505766 | 8.63 | 17.69 |
| 2064/065 | 31223 | 248324 | 83376 | 594204 | 12.57 | 14.03 |
| 2065/066 | 78049 | 305008 | 64363 | 731670 | 25.59 | 8.80 |
| 2066/067 | 60284 | 316730 | 64595 | 811421 | 19.03 | 7.96 |
| Mean | | | | | 14.85 | 13.55 |

Appendix - 6

(3) Loan and advance to total working fund:

$$\text{Loan and Advances to TWF Ratio} = \frac{\text{Total Loan and Advances}}{\text{Total Working Fund}}$$

(Rs. In thousands)

| Year | Loan and advances | Total working fund of KFL | Loan and advances of | Total working fund of NHMF | Ratio of KFL (in %) | Ratio of NHMF |
|------|-------------------|---------------------------|----------------------|----------------------------|---------------------|---------------|
|------|-------------------|---------------------------|----------------------|----------------------------|---------------------|---------------|

| | | | | | | |
|-------------|--------|--------|--------|--------|--------------|--------------|
| | of KFL | | NHMF | | | (in %) |
| 2062/063 | 248104 | 325718 | 380104 | 558747 | 76.17 | 68.03 |
| 2063/064 | 236917 | 346138 | 446521 | 621397 | 68.45 | 71.86 |
| 2064/065 | 226720 | 309578 | 557109 | 710128 | 73.24 | 78.45 |
| 2065/066 | 229436 | 373885 | 675197 | 839301 | 61.36 | 80.45 |
| 2066/067 | 257846 | 390663 | 761720 | 941514 | 66.00 | 80.90 |
| Mean | | | | | 69.04 | 75.94 |

Appendix - 7

(4) Investment to govt. securities to total working fund:

$$\text{Investment on Govt. Securities to Total Working Fund} = \frac{\text{Total Investment on Govt. Securities}}{\text{Total Working Fund}}$$

(Rs. In thousands)

| Year | Investment to govt. securities of KFL | total working fund of KFL | Investment to govt. securities of NHMF | total working fund of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|---------------------------------------|---------------------------|--|----------------------------|---------------------|----------------------|
| 2062/063 | 1750 | 325718 | 28556 | 558747 | 0.54 | 5.11 |
| 2063/064 | 1750 | 346138 | 27500 | 621397 | 0.51 | 4.43 |
| 2064/065 | 0 | 309578 | 27500 | 710128 | 0 | 3.87 |
| 2065/066 | 0 | 373885 | 12500 | 839301 | 0 | 1.49 |
| 2066/067 | 0 | 390663 | 12500 | 941514 | 0 | 1.33 |
| Mean | | | | | 0.21 | 3.25 |

Appendix - 8

(5) Investment on share and debenture to total working fund:

$$\text{Inv. on Shares and Debenture to TWF Ratio} = \frac{\text{Inv. on Shares and Debentures}}{\text{Total Working Fund}}$$

(Rs. In thousands)

| Year | Inv. on share and debenture of KFL | Total working fund of KFL | Inv. on share and debenture of NHMF | Total working fund of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|------------------------------------|---------------------------|-------------------------------------|----------------------------|---------------------|----------------------|
| 2062/063 | 4936 | 325718 | 3590 | 558747 | 1.52 | 0.64 |
| 2063/064 | 4936 | 346138 | 2208 | 621397 | 1.43 | 0.36 |
| 2064/065 | 1723 | 309578 | 1025 | 710128 | 0.56 | 0.14 |
| 2065/066 | 1549 | 373885 | 1067 | 839301 | 0.41 | 0.13 |
| 2066/067 | 1549 | 390663 | 3787 | 941514 | 0.40 | 0.40 |
| Mean | | | | | 0.86 | 0.33 |

Appendix - 9

(C) **Profitability Ratio:**

1) Return on loan and advance:

$$\text{Return on Loan and Advances Ratio} = \frac{\text{Net Profit / Loss}}{\text{Loan and Advances}}$$

(Rs. In thousands)

| Year | Net profit of KFL | Loan and advances of KFL | Net profit of NHMF | Loan and advances of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|-------------------|--------------------------|--------------------|---------------------------|---------------------|----------------------|
| 2062/063 | 6770 | 248104 | 7348 | 380104 | 2.73 | 1.93 |
| 2063/064 | 831 | 236917 | 5621 | 446521 | 0.35 | 1.26 |
| 2064/065 | 5391 | 226720 | 11981 | 557109 | 2.38 | 2.15 |
| 2065/066 | 8664 | 229436 | 8637 | 675197 | 3.78 | 1.28 |
| 2066/067 | 6613 | 257846 | 22211 | 761720 | 2.56 | 2.92 |
| Mean | | | | | 2.36 | 1.91 |

Appendix - 10

(2) Return on total working fund ratio:

$$\text{Return on Total Working Funds Ratio} = \frac{\text{Net Profit / Loss}}{\text{Total Working Fund}}$$

(Rs. In thousands)

| Year | Net profit of KFL | Total working fund of KFL | Net profit of NHMF | Total working fund of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|-------------------|---------------------------|--------------------|----------------------------|---------------------|----------------------|
| 2062/063 | 6770 | 325718 | 7348 | 558747 | 2.08 | 1.32 |
| 2063/064 | 831 | 346138 | 5621 | 621397 | 0.24 | 0.90 |
| 2064/065 | 5391 | 309578 | 11981 | 710128 | 1.74 | 1.69 |
| 2065/066 | 8664 | 373885 | 8637 | 839301 | 2.32 | 1.03 |
| 2066/067 | 6613 | 390663 | 22211 | 941514 | 1.69 | 2.36 |
| Mean | | | | | 1.61 | 1.46 |

Appendix - 11

3) Total interest income to total working fund ratio:

$$\text{Total Interest Earned to Total Working Funds Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Working Fund}}$$

(Rs. In thousands)

| Year | Interest income of KFL | Total working fund of KFL | Interest income of NHMF | Total working fund of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|------------------------|---------------------------|-------------------------|----------------------------|---------------------|----------------------|
| 2062/063 | 40315 | 325718 | 66958 | 558747 | 12.38 | 11.98 |
| 2063/064 | 38548 | 346138 | 62380 | 621397 | 11.14 | 10.04 |
| 2064/065 | 40257 | 309578 | 68593 | 710128 | 13.00 | 9.66 |
| 2065/066 | 41267 | 373885 | 87380 | 839301 | 11.04 | 10.41 |
| 2066/067 | 47459 | 390663 | 96376 | 941514 | 12.15 | 10.24 |
| Mean | | | | | 11.94 | 10.46 |

Appendix - 12

(4) Total interest paid to Total working fund ratio:

$$\text{Total Interest Paid to Total Working Funds Ratio} = \frac{\text{Total Interest Paid}}{\text{Total Working Fund}}$$

(Rs. In thousands)

| Year | Interest paid of KFL | Total working fund of KFL | Interest paid of NHMF | Total working fund of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|----------------------|---------------------------|-----------------------|----------------------------|---------------------|----------------------|
| 2062/063 | 23142 | 325718 | 40873 | 558747 | 7.10 | 7.32 |
| 2063/064 | 22448 | 346138 | 38568 | 621397 | 6.49 | 6.21 |
| 2064/065 | 20840 | 309578 | 40772 | 710128 | 6.73 | 5.74 |
| 2065/066 | 22533 | 373885 | 46978 | 839301 | 6.03 | 5.60 |
| 2066/067 | 26619 | 390663 | 55049 | 941514 | 6.81 | 5.85 |
| Mean | | | | | 6.63 | 6.14 |

Appendix - 13

Credit Risk Ratio:

$$\text{Credit Risk Ratio} = \frac{\text{Total Investment} + \text{Total loan and Advances}}{\text{Total Assets}}$$

(Rs. In thousands)

| Year | Total investment of KFL | Loan and advance of KFL | Total assets of KFL | Total investment of NHMF | Loan and advance of NHMF | Total assets of NHMF | Ratio of KFL (in %) | Ratio of NHMF (in %) |
|-------------|-------------------------|-------------------------|---------------------|--------------------------|--------------------------|----------------------|---------------------|----------------------|
| 2062/063 | 20186 | 248104 | 325718 | 88523 | 380104 | 558747 | 82.37 | 83.87 |
| 2063/064 | 21226 | 236917 | 346138 | 89486 | 446521 | 621397 | 74.58 | 86.26 |
| 2064/065 | 31223 | 226720 | 309578 | 83376 | 557109 | 710128 | 83.32 | 90.19 |
| 2065/066 | 78049 | 229436 | 373885 | 64363 | 675197 | 839301 | 82.24 | 88.12 |
| 2066/067 | 60284 | 257846 | 390663 | 64595 | 761720 | 941514 | 81.43 | 87.76 |
| Mean | | | | | | | 80.79 | 87.24 |

Appendix - 14

(D). Growth Ratio

1) Growth Ratio of Total Deposit

$$\text{Growth Ratio} = \frac{\text{Ending Value} - \text{Beginning Values}}{\text{Beginning Value}} \times 100$$

(Rs. In thousands)

| Year | Total Deposit of KFL | Total deposit of NHMF | Growth Ratio of KFL (in %) | Growth Ratio of NHMF (in %) |
|-------------|----------------------|-----------------------|----------------------------|-----------------------------|
| 2060/61 | 234732 | 455006 | - | - |
| 2062/063 | 239779 | 459920 | 2.15 | 1.08 |
| 2063/064 | 245981 | 505766 | 2.59 | 9.97 |
| 2064/065 | 248324 | 594204 | 0.95 | 17.49 |
| 2065/066 | 305008 | 731670 | 22.83 | 23.13 |
| 2066/067 | 316730 | 811421 | 3.84 | 10.90 |
| Mean | | | 6.47 | 12.51 |

Appendix - 15

2) Growth Ratio of Loan and Advances

$$\text{Growth Ratio} = \frac{\text{Ending Value} - \text{Beginning Values}}{\text{Beginning Value}} \times 100$$

(Rs. In thousands)

| Year | Loan and Advances of KFL | Loan and Advances of NHMF | Growth Ratio of KFL (in %) | Growth Ratio of NHMF (in %) |
|-------------|--------------------------|---------------------------|----------------------------|-----------------------------|
| 2060/61 | 236695 | 358521 | - | - |
| 2062/063 | 248104 | 380104 | 4.82 | 6.02 |
| 2063/064 | 236917 | 446521 | -4.51 | 17.47 |
| 2064/065 | 226720 | 557109 | -4.30 | 24.77 |
| 2065/066 | 229436 | 675197 | 1.20 | 21.20 |
| 2066/067 | 257846 | 761720 | 12.38 | 12.81 |
| Mean | | | 1.92 | 14.04 |

Appendix - 16

3) Growth Ratio of Total Investment

$$\text{Growth Ratio} = \frac{\text{Ending Value} - \text{Beginning Values}}{\text{Beginning Value}} \times 100$$

(Rs. In thousands)

| Year | Total Investment of KFL | Total Investment of NHMF | Growth Ratio of KFL (in %) | Growth Ratio of NHMF (in %) |
|-------------|-------------------------|--------------------------|----------------------------|-----------------------------|
| 2060/61 | 27212 | 17487 | - | - |
| 2062/063 | 20186 | 21226 | -25.82 | 21.38 |
| 2063/064 | 31223 | 78049 | 5.15 | 1.09 |
| 2064/065 | 60284 | 88523 | 47.10 | -6.83 |
| 2065/066 | 89486 | 83376 | 149.97 | -22.80 |
| 2066/067 | 64363 | 64595 | -22.76 | 0.36 |
| Mean | | | 30.73 | -1.36 |

Appendix - 17

4) Growth Ratio of Net Profit

$$\text{Growth Ratio} = \frac{\text{Ending Value} - \text{Beginning Values}}{\text{Beginning Value}} \times 100$$

(Rs. In thousands)

| Year | Net Profit of KFL | Net Profit of NHMF | Growth Ratio of KFL (in %) | Growth Ratio of NHMF (in %) |
|-------------|-------------------|--------------------|----------------------------|-----------------------------|
| 2060/61 | 7411 | 10130 | - | - |
| 2062/063 | 6770 | 7348 | -8.65 | -27.46 |
| 2063/064 | 831 | 5621 | -87.72 | -23.50 |
| 2064/065 | 5391 | 11981 | 548.74 | 113.15 |
| 2065/066 | 8664 | 8637 | 60.71 | -27.91 |
| 2066/067 | 6613 | 22211 | -23.67 | 157.16 |
| Mean | | | 97.88 | 38.29 |

Appendix - 18

(i) Calculation of Correlation Coefficient Between Total Deposit and Total Investment of KFL.

| FY | Total Deposit (X) | Total Investment (Y) | XY | X ² | Y ² |
|--------------|-------------------|----------------------|------------------|-------------------|------------------|
| 2062/063 | 239.779 | 20.186 | 4840.179 | 57493.969 | 407.475 |
| 2063/064 | 245.981 | 21.226 | 5221.193 | 60506.652 | 450.543 |
| 2064/065 | 248.324 | 31.223 | 7753.420 | 61664.809 | 974.876 |
| 2065/066 | 305.008 | 78.049 | 23805.569 | 93029.880 | 6091.646 |
| 2066/067 | 316.730 | 60.284 | 19093.751 | 100317.893 | 3634.161 |
| Total | 1355.822 | 210.968 | 60714.113 | 373013.203 | 11558.701 |

Here,

$$N = 5$$

$$\sum X = 1355.822, \sum Y = 210.968, \sum XY = 60714.113, \sum X^2 = 373013.203,$$

$$\sum Y^2 = 11558.701$$

Where,

N = No. of observation of X and Y

$\sum X$ = Sum of the observations in series X

$\sum Y$ = Sum of the observations in series Y

$\sum x^2$ = Sum of the square of observations in series X

$\sum y^2$ = Sum of the square of observations in series Y

$\sum XY$ = Sum of the product of the observations in series X and Y

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

or,

$$r = \frac{5 \times 60714.113 - 1355.822 \times 210.968}{\sqrt{5 \times 373013.203 - (1355.822)^2} \times \sqrt{5 \times 11558.701 - (210.968)^2}}$$

$$\text{or, } r = \frac{303570.565 - 286035.056}{\sqrt{1865066.015 - 1838253.296} \times \sqrt{57793.505 - 44507.497}}$$

$$\text{or, } r = \frac{17535.510}{163.746 \times 115.265}$$

or,

$$\text{or, } r = 0.929$$

and,

$$r^2 = (0.929)^2$$

$$\text{or, } r^2 = 0.863$$

and,

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

$$\text{or, } \text{P.E.} = 0.6745 \times \frac{1-(0.929)^2}{\sqrt{5}}$$

$$\text{or, } \text{P.E.} = 0.0413$$

(ii) Calculation of Correlation Coefficient Between Total Deposit and Total Investment of NHMF.

| FY | Total Deposit (X) | Total Investment (Y) | XY | X ² | Y ² |
|--------------|----------------------|----------------------------|-------------------|--------------------|------------------|
| 2062/063 | 459.920 | 88.523 | 40713.498 | 211526.406 | 7836.321 |
| 2063/064 | 505.766 | 89.486 | 45258.976 | 255799.247 | 8007.744 |
| 2064/065 | 594.204 | 83.376 | 49542.353 | 353078.394 | 6951.557 |
| 2065/066 | 731.670 | 64.363 | 47092.476 | 535340.989 | 4142.596 |
| 2066/067 | 811.421 | 64.595 | 52413.739 | 658404.039 | 4172.514 |
| Total | 3102.981 | 390.343 | 235021.042 | 2014149.615 | 31110.712 |

N = 5

$$\Sigma X = 3102.981, \Sigma Y = 390.343, \Sigma XY = 235021.042, \Sigma X^2 = 2014149.615, \\ \Sigma Y^2 = 31110.712$$

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

$$\text{or, } r = \frac{5 \times 235021.042 - 3102.981 \times 390.343}{\sqrt{5 \times 2014149.615 - (3102.981)^2} \times \sqrt{5 \times 31110.712 - (390.343)^2}}$$

$$\text{or, } r = \frac{1175105.21 - 1211226.912}{\sqrt{10070748.08 - 9628491.086} \times \sqrt{155553.56 - 152367.657}}$$

$$\text{or, } r = \frac{-36121.702}{665.024 \times 56.444}$$

$$\text{or, } r = -0.962$$

and,

$$r^2 = (-0.962)^2$$

$$\text{or, } r^2 = 0.925$$

and,

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

$$\text{or, } \text{P.E.} = 0.6745 \times \frac{1-(-0.962)^2}{\sqrt{5}}$$

$$\text{or, } \text{P.E.} = 0.023$$

Appendix - 19

**(i) Calculation of Correlation Coefficient Between Total
Deposit and Loan & Advances of KFL.**

| FY | Total Deposit (X) | Loan and advances of (Y) | XY | X ² | Y ² |
|--------------|----------------------|--------------------------------|-------------------|-------------------|-------------------|
| 2062/063 | 239.779 | 248.104 | 59490.129 | 57493.969 | 61555.595 |
| 2063/064 | 245.981 | 236.917 | 58277.081 | 60506.652 | 56129.665 |
| 2064/065 | 248.324 | 226.720 | 56300.017 | 61664.809 | 51401.958 |
| 2065/066 | 305.008 | 229.436 | 69979.815 | 93029.880 | 52640.878 |
| 2066/067 | 316.730 | 257.846 | 81667.564 | 100317.893 | 66484.560 |
| Total | 1355.822 | 1199.023 | 325714.606 | 373013.203 | 288212.559 |

Here,

N = 5

$$\Sigma X = 1355.822, \Sigma Y = 1199.023, \Sigma XY = 325714.606, \Sigma X^2 = 373013.203, \\ \Sigma Y^2 = 288212.559$$

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

or,

$$r = \frac{5 \times 325714.606 - 1355.822 \times 1199.023}{\sqrt{5 \times 373013.203 - (1355.822)^2} \times \sqrt{5 \times 288212.559 - (1199.023)^2}}$$

or,

$$r = \frac{1628573.03 - 1625661.762}{\sqrt{1865066.015 - 1838253.296} \times \sqrt{1441062.795 - 1437656.155}}$$

or,

$$r = \frac{2911.268}{163.746 \times 58.366}$$

or,

or,

$$r = 0.305$$

and,

$$r^2 = (0.305)^2$$

or, $r^2 = 0.093$

and,

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

or, $\text{P.E.} = 0.6745 \times \frac{1-(0.305)^2}{\sqrt{5}}$

or, $\text{P.E.} = 0.274$

(ii) Calculation of Correlation Coefficient between Total Deposit and Total Loan & Advances of NHMF.

| FY | Total Deposit (X) | Loan and advances of (Y) | XY | X ² | Y ² |
|--------------|-------------------|--------------------------|--------------------|--------------------|--------------------|
| 2062/063 | 459.920 | 380.104 | 174817.432 | 211526.406 | 144479.051 |
| 2063/064 | 505.766 | 446.521 | 225835.140 | 255799.247 | 199381.003 |
| 2064/065 | 594.204 | 557.109 | 331036.396 | 353078.394 | 310370.438 |
| 2065/066 | 731.670 | 675.197 | 494021.389 | 535340.989 | 455890.989 |
| 2066/067 | 811.421 | 761.720 | 618075.604 | 658404.039 | 580217.358 |
| Total | 3102..981 | 2820.651 | 1843785.961 | 2014149.615 | 1690338.839 |

$N = 5$

$$\sum X = 3102.981, \sum Y = 2820.651, \sum XY = 1843785.961, \sum X^2 = 2014149.615,$$

$$\sum Y^2 = 1690338.839$$

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

or, $r = \frac{5 \times 1843785.961 - 3102.981 \times 2820.651}{\sqrt{5 \times 2014149.615 - (3102.981)^2} \times \sqrt{5 \times 1690338.839 - (2820.651)^2}}$

$$\text{or, } r = \frac{9218929.805 - 8752426.461}{\sqrt{10070748.08 - 9628491.086} \times \sqrt{8451694.195 - 7956072.064}}$$

$$\text{or, } r = \frac{466503.344}{665.024 \times 704.004}$$

$$\text{or, } r = -0.996$$

and,

$$r^2 = (0.996)^2$$

$$\text{or, } r^2 = 0.992$$

and,

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

$$\text{or, } \text{P.E.} = 0.6745 \times \frac{1-(0.996)^2}{\sqrt{5}}$$

$$\text{or, } \text{P.E.} = 0.0024$$

Appendix – 20

(E). Trend Analysis

1) Trend Analysis of Loan and Advances to Total Deposit Ratio.

Calculation of KFL

| Year | loan and advance to total deposit(Y) | X=x-2063/064 | X ² | XY |
|----------|--------------------------------------|--------------|----------------------|-------------|
| 2062/063 | 103.47 | -2 | 4 | -206.9 |
| 2063/064 | 96.32 | -1 | 1 | -96.32 |
| 2064/065 | 91.3 | 0 | 0 | 0 |
| 2065/066 | 75.22 | 1 | 1 | 75.22 |
| 2066/067 | 81.41 | 2 | 4 | 162.82 |
| N=5 | ∑Y = 447.72 | ∑X = 0 | ∑X ² = 10 | ∑XY = 65.22 |

(Source: Annul report of KFL)

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

Here,

$$a = \frac{\sum y}{N}$$

$$= \frac{447.72}{5} = 89.54$$

$$b = \frac{\sum xy}{\sum x^2}$$

$$= \frac{-65.22}{10} = -6.522$$

Substituting these values of a and b in eq (I) we get the required trend line

$$Y_c = 89.54 - 6.522x$$

Calculation of NHMF

| Year | Loan and Advance to Total Deposit(Y) | X=x- 2063/064 | X ² | XY |
|--------------|---|------------------|----------------------------|--------------------|
| 2062/063 | 82.65 | -2 | 4 | -165.3 |
| 2063/064 | 88.29 | -1 | 1 | -88.29 |
| 2064/065 | 93.76 | 0 | 0 | 0 |
| 2065/066 | 92.28 | 1 | 1 | 92.28 |
| 2066/067 | 93.87 | 2 | 4 | 187.74 |
| N = 5 | ∑Y = 450.85 | ∑X = 0 | ∑X² = 10 | ∑XY = 26.43 |

(Source: Annul report of NHMF)

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

Here,

$$\begin{aligned} a &= \sum y / N \\ &= \frac{450.85}{5} \\ &= 90.177 \end{aligned}$$

$$\begin{aligned} b &= \sum xy / \sum x^2 \\ &= \frac{26.43}{10} \\ &= 2.643 \end{aligned}$$

Substituting these values of a and b in eqⁿ (I) we get the required trend line

$$Y_c = 90.177 + 2.643x$$

Appendix – 21

2) Trend Analysis of Total Investment to Total Deposit Ratio.

Calculation of KFL

| Year | total investment to total deposit(Y) | X=x-2063/064 | X ² | XY |
|--------------|--------------------------------------|--------------|----------------|--------------|
| 2062/063 | 8.42 | -2 | 4 | -16.84 |
| 2063/064 | 8.63 | -1 | 1 | -8.63 |
| 2064/065 | 12.57 | 0 | 0 | 0 |
| 2065/066 | 25.59 | 1 | 1 | 25.59 |
| 2066/067 | 19.03 | 2 | 4 | 38.06 |
| N = 5 | 74.24 | 0 | 10 | 38.18 |

Let trend line be

$$Y = a + b x \dots \dots \dots (I)$$

Where x = X - Middle year

Here,

$$\begin{aligned} a &= \sum y / N & b &= \sum xy / \sum x^2 \\ &= \frac{74.24}{5} = 14.848 & &= \frac{38.18}{10} = 3.818 \end{aligned}$$

Substituting these values of a and b in eq. (I) we get the required trend line

$$Y_c = 14.848 + 3.818x$$

$$Y_c = 2.36 + 0.309X$$

Calculation of NHMF

| Year | Total Investment to Total Deposit(Y) | X=x- 2063/064 | X ² | XY |
|--------------|---|------------------|----------------|---------------|
| 2062/063 | 19.25 | -2 | 4 | -38.5 |
| 2063/064 | 17.69 | -1 | 1 | -17.69 |
| 2064/065 | 14.03 | 0 | 0 | 0 |
| 2065/066 | 8.8 | 1 | 1 | 8.8 |
| 2066/067 | 7.96 | 2 | 4 | 15.92 |
| N = 5 | 67.73 | 0 | 10 | -31.47 |

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

Here,

$$a = \sum y / N$$

$$= \frac{67.73}{5}$$

$$= 13.546$$

$$b = \sum xy / \sum x^2$$

$$= \frac{-31.47}{10}$$

$$= -3.147$$

$$Y_c = 13.54 - 3.147 X$$

Appendix - 22

3) Trend Analysis of Return on loan and advance Ratio.

Calculation of KFL

| Year | Return on loan and advance ratio | X=x- 2063/064 | X ² | XY |
|--------------|----------------------------------|------------------|----------------|-------------|
| 2062/063 | 2.73 | -2 | 4 | -5.46 |
| 2063/064 | 0.35 | -1 | 1 | -0.35 |
| 2064/065 | 2.38 | 0 | 0 | 0 |
| 2065/066 | 3.78 | 1 | 1 | 3.78 |
| 2066/067 | 2.56 | 2 | 4 | 5.12 |
| N = 5 | 11.8 | 0 | 10 | 3.09 |

(Source: Annul report of KFL)

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where x = X - Middle year

Here,

$$\begin{aligned}
 a &= \sum y / N \\
 &= \frac{11.5}{5} \\
 &= 2.36
 \end{aligned}$$

$$\begin{aligned}
 b &= \sum xy / \sum x^2 \\
 &= \frac{3.09}{10} \\
 &= 0.309
 \end{aligned}$$

Substituting these values of a and b in eq. (I) we get the required trend line

$$Y_c = 2.36 + 0.309x$$

Calculation of NHMF

| Year | Return on Loan and Advance Ratio | X=x- 2063/064 | X ² | XY |
|--------------|-------------------------------------|------------------|----------------|----------|
| 2062/063 | 1.93 | -2 | 4 | -3.86 |
| 2063/064 | 1.26 | -1 | 1 | -1.26 |
| 2064/065 | 2.15 | 0 | 0 | 0 |
| 2065/066 | 1.28 | 1 | 1 | 1.28 |
| 2066/067 | 2.92 | 2 | 4 | 5.84 |
| N = 5 | 9.54 | 0 | 10 | 2 |

Source: Annual report of NHMF

Let trend line be

$$Y = a + b x \dots\dots\dots (I)$$

Where $x = X - \text{Middle year}$

Here,

$$\begin{aligned} a &= \sum y / N \\ &= \frac{9.54}{5} \\ &= 1.908 \end{aligned}$$

$$\begin{aligned} b &= \sum xy / \sum x^2 \\ &= \frac{2}{10} \\ &= 0.2 \end{aligned}$$

Substituting these values of a and b in eq. (I) we get the required trend line

$$Y_c = 1.908 + 0.2 X$$