CAPITAL STRUCTURE, CAPITAL ADEQUACY AND PROFITABALITY MANAGEMENT OF BANK OF KATHMANDU LIMITED AND MACHHAPUCHCHHRE BANK LIMITED

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RECOMMENDATION

This is to certify that the thesis

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CAPITAL STRUCTURE, CAPITAL ADEQUACY & PROFITABILITY MANAGEMENT OF BOKL & MBL

has been prepared as approved by this department in the prescribed format of faculty of management. This thesis is forwarded for evaluation.

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DECLARATION

I hereby declare that the work done in this thesis entitled **"Capital Structure, Capital Adequacy & Profitability Management of BOKL & MBL"** submitted to Balkumari College, Faculty of Management, Tribhuvan University is my original work. It is done in the form of partial fulfillments of the requirement of the degree of Master of Business Studies (M.B.S.) under the supervision and guidance of Mr. Baburam Panthi, Lecturer of Balkumari College.

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ABBREVIATIONS

B&FI's	:	Bank and Financial Institutions
BOKL	:	Bank of Kathmandu Limited
BS	:	Bikram Sambat
CAR	:	Capital Adequacy Ratio
CCAR	:	Core Capital Adequacy Ratio
Co.	:	Company
CV	:	Coefficient of Variation
DC	:	Debt Capital
DE	:	Debt Equity
DPBs	:	Domestic Private Banks
Ed.	:	Edition
EPS	:	Earning Per Share
FY	:	Fiscal Year
i.e.	:	That is
ICR	:	Interest Coverage Ratio
MBL	:	Machhapuchchhre Bank Limited
NIM	:	Net Interest Margin
NPBT	:	Net Profit Before Tax
NRB	:	Nepal Rastra Bank
PE	:	Probable Error
Pvt. Ltd.	:	Private Limited
ROA	:	Return on Assets
ROE	:	Return on Equity
SCAR	:	Supplementary Capital Adequacy Ratio
SD	:	Standard Deviation
T.U.	:	Tribhuvan University
Viz.	:	Namely

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Commercial banks are important in all type of business either they are private or public (low, medium and high size of business) deals with money markets. The role of commercial bank is increasing day to day. Commercial banks are one of the major financial intermediaries whose primary function is the transaction of monetary resources from saver to the user. So the commercial bank plays the vital role in the economic development of the countries. Commercial bank, Saving institution and Credit union are the three major groups of financial institutions. Commercial banks are financial intermediaries that collect and disburse the funds from surplus to deficit unit.

In every organization, Capital is very essential factors to open and run smoothly. The past trend of entering into a joint venture, with a foreign bank is gradually vanishing and most of the new banks are indigenous. Now there is no need to look up to a foreign equity holder to guide towards new technology and new product. The banks in Nepal have unique natures. From the ownership point of view, the commercial bank in Nepal can be broadly classified into two categories; public Banks and private banks. The direction and guidance provides by NRB is the major policy statement for the Nepalese commercial banks. The banks which are owned or controlled by the government are labeled as public banks while the banks that are owned controlled by the private sector and categorized as a private bank (DPBS) and joint venture banks.

Banks are the financial institution. A bank cannot be imagined without sufficient capital. The total sum of equity, capital and borrowed capital is

called capital structure. A bank collects capital by issuing ordinary equity shares which are banks owned capital. In a banking sector, the capital collected by issuing the banks is called share capital. Banks collects capital from other sources is called borrowed capital.

Adequacy and Inadequacy of bank capital is directly effect the banking transaction. The adequacy of the bank capital is most importance aspect of the bank. The bank should remove the inadequacy of bank capital through the means by collecting of share capital and borrowed capital. The defect caused by bank capital doesn't lead the bank forwards.

In Nepalese context, NRB has directed all the commercial bank on the basis of risk - weighted assets, effective form FY 2062/063. Every commercial banks should maintain the amount of the core capital of 6% and the total capital fund of 12% of it's total risk weighted assets. The supplementary capital should not also exceed the amount of core capital. *(www.nrb.org.np)*

Capital is the major crucial factor for the development of the nation due to least developed country. Domestic capital formation is very difficult task for Nepal. The banks are not to develop and spread industry to boost the trade and commercial activities and to generate employment. Banks are essential financial institution in our economy. They are the principal sources of credit that provides short term working capital for business and long term business loans for new plant and equipment. The commercial bank is simply a business corporation organized for the purpose of maximizing the value of shareholder's wealth invested in the bank at the accepted level of risk. Bank also generate income by providing the service for other which they charges fees and commission, meanwhile, banks have also entered into financial advisory services, foreign trading processing and investment.

Capital can be acquired through issuing debt, preferred stock, common stock and using retained earnings. The combination of such component of capital

is called capital structure that differs from company to company. It should pay fixed charge for debt capital as interest from company's earning balance is available to enquiry share holders. Out of which certain individual are declared. In this way, interest on debt capital decrease earning available to equity shareholders. Equity share holder can earn total amount of profit if there is no presence of debt capital in capital structure.

Long term debt is the least cost sources of financing because interest on debit is tax deductible and credits or debenture holders .consider debit as a relatively less risky investment and require lower rectum .Debit provides flexibility in the financial structure of the corporation. The company can issue debit or repay whenever required to make financial structure flexible. Creditors and debenture holders have no interference in business operation because they have not entitled to vote. The Company can enjoy on tax saving on interest expense.

Profit is tone of the measurement at operating efficiency at organization that depends on capital structure, optimal capital structure of capital, the maximize value of the firm and minimize the overall cost of capital, capital structure that maximize EPS, over the expected EBIT. Optimal capital structure can be defined in terms of risk and return because different sources of capital consists of different risk and return which maximize the price of stock, here a brief introduction to BOKL and MBL are presented.

1.1.1 Brief Introduction of Sample Banks

- **Bank of Kathmandu Limited (BOKL)**

Bank of Kathmandu limited (BOKL) has become a permanent name in the Nepalese banking sector BOKL has today become a land mark in the Nepalese banking sector, by being a few commercial banks which is entirely managed by Nepalese professionals and owned by the general public. BOKL

started it's operation in march 1995 with the objective to stimulate the Nepalese economy and take it to newer heights to facilitate the nation's economy and to become more competitive globally having head office in Kamaladi, Kathmandu. The bank expanded it's branches in Kamal Pokhari, Thamel, New Road Kathmandu, Butwal, Hetauda, Nepalgunj, Dhangadi, Pokhara, Biratnagar, Birgunj, Amlekhgunj, Ithari, Janakpur, Kohalpur, Gongabu, Tatopani, Jawalakhel, Surkhet, Khairenitar, Panauti, Balkhu, Narayangarh, Ghorai, Balaju, Atariya, New Baneshwor, Gyaneshwor, Tripureshwor, Chabahil, Bhaktapur, Tikapur, Guleriya, Dadekdhura, Urlabari, Sankhuwasaba. BOKL has made substantial progress in development of a management information system by using internationally acclaimed software, Financial in order to support expansions and new services. Entire branches and outlets are connected online with a central database, which has facilitated better organization, risk minimization and flexibility in operation.

BOKL has the most sophisticated banking software enabling in to provide modern banking, point of sale, services, SMS banking, ATM facilities, LC services and many more. BOKL has an authorized capital 2 billion rupees out of which 1,182,157,100 million rupees have been paid up capital. The ownership share structure is derived as promoter's shares 42% and general public share 58%.

- **Machhapuchhere Bank Limited (MBL)**

Machhapuchhere Bank Limited (MBL) registered in 1998 is the first commercial bank in western part of kingdom of Nepal having head office in Prithvi Chowk, Pokhara. It started banking transaction from October 2000 in its own land with well building. The bank with a perception of tremendous business potentials outside Kathmandu, in very short span of time having a total 29 number of branches expanded branch in Putalisadak, Birgunj ,

Bhairahawa, Damauli, Mahendrapul, Rambazar, Jomsom, Banepa, Newrosd, Lalitpur, Baliwatar, Tlhapathali, Ithari, Aanbukhaireni, Beni, Illam bazaar, Butwal, Narayangarh, Bhaktapur, Sanothimi, Baglung, Swayambu, Biratnagar,BouddhaPepsicola, Chapagaun, Phidim, Birtamod, Nepalgunj, Dhangadi, Lazimpat, MBL is a pioneer in introducing new technology in banking in the country. It is the first bank to introduce centralized banking software named GLOBUS BANKING SOFTWARE developed by TEMENUD MU, Switzerland. The bank provides modern banking facilities such as Anywhere Banking and Internet banking to it's total valued customer. MBL strives to facilitate it's customer needs by delivering the best service in combination with the state of art technologies and best international practices. MBL has the best sophisticated GLOBUS BANKING SOFTWARE enabling it to provides Modern Banking, Tele Banking, Internet Banking, SMS Banking, On line Banking Online Mobile Bill Payment, Point of Sale services, ATM facilities, WIFT transfer and many more, The Sophisticated communication technology has interlinked all it's branches to has enabled the bank to provide anywhere banking facilities to it's entirely valued customer. MBL has an authorized capital of 2 billion rupees and 1.479 billion have been paid up capital.

This capital base is sufficient for conducting commercial banking activities in Nepal under the policy of MCB. The ownership share 70.0% and general public 30% (including 5% of Employers shared.

1.2 Focus of the study

The role of banking industry is increasing in these days without modern banking system, the development of the country is only a dream, capital is the most important factor from beginning of the business organization .The success of every industry depends upon the proper composition of debt equity in capital structure, which helps to generate the high return and to

maintain long-term solvency position. Investor invests their fund in the business organization as an ownership capital or debt capital with expectation of getting favorable profit in future. Without proper capital utilization, it fails to meet their expectation and damage the image and credit worthiness of the organization and leads to fall the market value. This thesis is focused on analysis of capital structure capital adequacy and profitability management of BOKL and MBL, finding true facts and recommendation for corrective measures pointing out the problems.

This study is based on the secondary data provided by the particular concerned banks, which focus to evaluate the capital structure to test the impact of the capital structure on profitability. Debt to equity ratio and capital adequacy ratio that affect the profitability or not is the main concentrates issues on the thesis. This study mainly focused on the capital structure, capital adequacy and profitability management of these two banks.

1.3 Statement of the Problem

Due to increasing number of commercial banks in day by the banking industry has to face growing competition environment. So, most of the commercial banks are being operated in worse condition due to inadequate capital management. Some of them, banks are suffering from lack of knowledge for proper utilization of their resources. In this new economic environment there is less protection, subsidy and monopoly of market. So the business firm can take advantages through appropriate capital structure decision because long-run profitability depends upon it's capital structure besides other factor. Higher debt to equality ratio is more risky for the company through high leverage has it's own advantages. On the other hands an appropriate balance of debt and owner's equity is essential to avoid financial risk. So highly lowered capital structure with insufficient return represents the weak financial aspect of the banks.

The study of capital structure for banking business is very essential since the business is operated with customer's fund. Under new policy of commercial banks NRB directed all the commercial bank to increase the capital to Rs. 2 billion by mid may 2002. Therefore these banks are being highly sensitive business; NRB directed all the commercial bank FY mid May 2002. Therefore, these banks are being highly sensitive business, NRB reform their policy from time to time in favours of depositors and owners of the company. So this study traced out the problem order inefficiency and weakness based on the capital structure, capital adequacy and profitability of sampled banks in Nepal BOKL and MBL.

1.4 Objective of the Study

The main objective of the study is to examine the comparative analysis of Capital structure, Capital adequacy and profitability management of DPBS in Nepal between well-known Nepalese competitive banks BOKL and MBL. This study also helps to find and suggests the ways of improving their performance. The major objectives of the study are given below:

1. To analyse the trend of paid up capital between BOKL and MBL.
2. To analyse the debt serving capacity between BOKL and MBL.
3. To examine the ratio of debt and equity capital.
4. To evaluate the capital adequacy situation of BOKL and MBL.
5. To examine the relationship of capital adequacy with other related variables such as profitability.

1.5 Research Questions

1. What is the trend of debt capital and equity capital?
2. What is the trend of paid-up capital between BOKL and MBL in FY 2005/06 to 2009/10?
3. How far the sampled banks are able to serve the debt?

4. What is the relation between capital structure, capital adequacy and profitability of these sampled banks?
5. How the capital adequacy condition of these to banks?
6. How efficiently sampled banks are able to earn profit?
7. Are these sampled banks are satisfied with their profitability?

1.6 Significance of the Study

Research itself is very important because it aims to gain Knowledge and add new literature in existing field. Thus the research has its own importance. The earning nature of these organization helps to adopt appropriate mix of total debit and equality in toward profitability. Thus the out comes of the study helps to suggest the effective measures which banking sector can follow to convert the bad capital structure. It aims to help the policy making activities. It also provides the literature to the research in the same to carryout further research in the same avenues. So the financial institution holding lender and owner are more concerned with the firms long term financial strength. In this study capital structure helps to indicate and to follow the appropriate mix of debit and owners equality in the banking industry. Similarly profitability analysis would helps to indicate the condition of earnings. On account of this significance, the capital structure and profitability of the banking industry is justified as a specific subject matter. This study also help to the researches to analyse and provided signaling information about organization. Therefore an important effort has been contributed to the comparative case study about the capital structure, capital, capital adequacy and profitability management of DPBS in Nepal.

1.7 Limitation of the Study

The research study has been conducted within certain limitation and boundaries so that researcher may not try to go across.

a. This study is related only within capital structure, capital adequacy and profitability.

b. The study concern with only these two banks (i.e BOKL and MBL)

c. The study covers only five years period form the FY 2005/06 to 2009/10.

d. The study is based on secondary data collected.

1.8 Organization of the Study

This study is organized into five chapters. Each chapter is denoted to some aspects of the study. The rationale behind this kind of organizations is to follow research methodology. The content of the study for chapters are mentioned below.

Chapter One

The first chapter deals with introduction which includes general background, focus of the study, statement of the problem, objective of the study, research questions, significance of the study, limitation of the study and organization of the study.

Chapter Two

Second chapter deals with the review of available literature, it includes the conceptual review and research review in related studies.

Chapter Three

Third chapter explains the research methodology used in the study, which includes research design, population and sampled nature and sources of data, data collection procedures, data processing and analysis and data analysis tools and techniques as well as limitation of methodology.

Chapter Four

Fourth chapter deals with presentation and analysis of data which includes the presentation and analysis of data and major finding of the study with the helps of various financial and statistical tools and techniques.

Chapter Five

Finally, Fifth chapter discuss the summary of main findings, conclusions and recommendation of the study, which are important aspect to solve the problems associated to the present analysis and offers recommendation for the further improvement in future.

At the end of this study bibliography and appendix are attached.

CHAPTER TWO

REVIEW OF LITERATURE

Conceptual framework is a most important part of everyday, without knowing the clear concept on the subject matter the study may not go through right way. Therefore, the review of literature is taken as very important essential part, which works as a cornerstone of the study. This chapter focuses on the review of relevant theoretical literatures & provides related studies. It provides the guidelines for further study, which help to avoid the unnecessary duplication in research work. The chapter divided into two parts-theoretical review and research review. Theoretical review includes definition and summery of different books and authors and research review includes the review of article published in different journal and other relevant unpublished past studies.

2.1 Conceptual Review/ Theoretical Review

This sub chapter section represent the theoretical aspect of the study, which includes the concept of commercial banks, commercial banking in Nepal; evaluation and present scenario functions of commercial bank, bank capital management sucrose and uses, bank capital adequacy system NRB directly related to capital adequacy, concept of capital structure and profitability concept and their theories. As this research study deals with compare the study between two sampled banks VIZ BOKL and MBL on capital structure, capital adequacy and profitability of BPB_s in Nepal, have is almost necessary to maintain the conceptual thoughts behind it.

2.1.1 Concept of Commercial Banking Industry

Commercial banks play the vital role in the economic development of the country being major sources of credit. Commercial banks saving institution and credit unions are the three major groups of financial institution.

Commercial bank is the largest financial institution whose primary business is providing service to primary business firm as well as to the people. It's mission, goals, objectives and polices are similar to those of other financial institutions. So, that commercial bank is profit seeking business firm for long run sustaining the business by long run profits leading and investing fund at their disposal at a long financial institutions rate of return as its consistent with an appropriate degree of safety of principal. Commercial bank is the oldest and quantitatively by the largest financial institutions in any country. So, Commercial banks have the highest share in the total net issues of financial institutions as all times and for all groups of countries. Commercial bank of offers the public both deposit and credit services as well as a growing list of newer and more innovative services, such as investment advice, security underwriting and financial planning. (Rose, 1997: 82)

Commercial banks is established with a view to provide short-term debt necessary for trade and commerce of the country along with other necessary banking business such as collection the surplus in the form of deposit, goods in security, acting as agent of the client (Upadhya and Tiwari, 1980: 78). Flow of the fund across the national boundaries is providing very significant role of money market, the money market is founded on the large amounts of funds, which companies, bank and other financial institutions wish to hold in highly liquid form to meet short term fluctuations in their finance. The money market in divisible under two sectors organized and unorganized. The organized market comprises NRB- the central banks and commercial banks. It is called organized because the activities of commercial bank are systematically coordinated by the central bank. The unorganized market is a largely made of indigenous bankers and money leaders. It is unorganized because NRB does not systematically coordinated the activities of theses indigenous bankers and money lenders (Shrestha, Poudel and Bhandari 2003: 40-41). Therefore principally commercial bank accepts deposit and

provides loans primarily to business firm: on the other hand, the broad concept of commercial banks holds that the commercial bank is a banking institution other than central bank. (Abrol and Gupta, 2002:230)

Commercial banks is relationship to medium and long-term credit is often compared with that of a young maiden's to her child (Stutzel, 1963:20). Where, a young lady can remain maiden's only as long as she does not have a child. Similarly, a commercial bank remains in effect a commercial bank only when it does not have medium and long term lending. If it does have it is no longer a commercial bank in the traditional sense of the term.

By directly financing the industries and fostering the capital market, the industrial development of such under development countries (like Nepal) from the commercial banks to expect a measurable contribution. The resulting benefits from it will be enjoyed by the bank is not a small degree. "No institution has a greater or closer interest in well-established, expanding and successful industry and agriculture than a commercial bank any thing which contributes a economic development, contributes to growth and propensity of commercial bank" (Nevin, 1961, 70). So, now there seems to be an increasing realization on the part of developing nations on the need for a more active role of commercial banks in financial industrial development.

In the context of Nepal, according to commercial banks and financial Act. 2063 section 47, and as per the minimum paid-up capital requirement prescribed by NRB (Economic Report, 2006). Banks and financial institutions are to be classified under four categories such as KA, KHA, GA and GHA & licenses issued. "KA" classes financial institutions are called Bank, in which minimum paid up capital should have 200 cores for National Level Bank. In these days banking is becoming an increasingly international business for accepting deposit and granting loans. Whole the nationality of the lending international banks has changed from time to time; the overall

trend of international banking has been the same rapid expression. Similarly, banking closer to the concept of universal banking in which commercial bank activities coverage with investment banking and insurance as well as other financial services (Rose, 2002:91). According to international Banking Act. 1978, The Act. required each foreign bank to select as its "Home State". It would then be treated in terms of branching. This Act also extended to foreign banks in the United States regulations that applied to domestic Banks.

Formerly, a Commercial bank alas defined as a firm that both accepted demand deposit and made commercial loans. These two products, which were traditionally associated only with commercial banks, are now also offered by many different types of firms. Including finance companies, insurance companies, personal fund, general retail stores, credit unions etc. Commercial banks in turn, offer a variety insurance, real estate and investment banking service they were once defined (Koch and Macdonald, 2004:41). There is a distinction between the legal definition and financial definition of what bank do the legal definition of a commercial bank is important because other types of financial institutions offer the same of similar services but are not subject to the same regulations so bank (Gupta and Kolari, 2005).

The United Sate experienced several phases of regulating the link between the commercial bank and investment banking industries. Similarly defined, commercial banking is the activity of deposit taking and commercial lending; investment banking is the activity of underwriting, issuing and distributing (via private and public placement) securities (Saunders and Cornet, 2004, 406). In such a way that the commercial bank can be explained as the function they perform as well as framework of legal provisions.

2.1.2 Commercial Banking Industry in Nepal; Evolution and Present Scenario

A broad and brief picture of the progress of commercial banking in Nepal in terms of growth, in the number, number of branches, total deposits and total advances, which has been increased continuously day by day, so the (evolution of banking industry has started a long time back, during in ancient time in the context of world. The origin of the banking system is traceable to the ancient Assyrians, Babylonians and Athersian, but the fore runner of modern banks are considered to be the Bank of Vanice (1171 A.D.). The banks of various and Bank of Genoa Continued to operate until the end of eighteenth century. With the expansion of commercial activities in Northern Europe and slowly it spread through out the world. Similarly, in almost all countries the logical historical order of the development of commercial banks has gone through different steps age stages. Which starts from rudimentary economy in which the commodity money such as gold and silver coins generally accepted as a means of payment? Involvements of landlords, rich merchants, shopkeeper and other individual money lender have acted as fence to institutional credit in presence of unorganized money lender, Through establishment of banking industry was very recent; some crude bank operation were in practice even in the ancient time.

In the context of Nepalese chronicle, the development of banking industry is relatively recent. The record of banking system of Nepal gives detail account of mixture life. It was recorded that the new era known as Nepali Sambat was introduced by Shankadhar, a Sudra merchant of Kantipur in 879-880 A.D., after having paid all the outstanding debts in the country. Which is shows the basis of money lending practice in ancient of Nepal. At the end of 8^{th} century, during Gunakam Dev had burrowed money to rebuild the Kathmandu valley. In the 11^{th} century, During Malla regime there was an

evidence of professional moneylenders and bankers. The silver coin age, which come in to existence in Nepal, in the 12th century is said to have marked a new epoch in the economic history. However, due to the absence of regulatory bodies, the money lenders used to change high rate of interest and other extra due. On loans extended. At the end of 14th century, we further came across the term 'Tanka Dhari' meaning money dealer, which is one of the sixty-four caste classified on the basis of occupation.

During the year 1877 A.D.; establishment of 'Tajarath Adda' by government of Kathmandu valley, the banking system was flourished which helped general public to provide credit facilities as very low interest rate. Where, Tejarath Adda extended the loan to the public against the collateral to gold and silver. Hence the establishment of Tejarath Adda, could be taker as pioneer foundation of banking in Nepal. At the time, the Tejarath Adda could not run and extended the advance requirement to general public due to the lack of financial support as no other financial institution were setup. Again, as unorganized money lender became active. In the mean time, government stated to establish trade relationship between, Tibet and India. The needed to banking institution was realized when there was as need of finance for the reinstruction of work on 1934 A.D. earthquake. Considering this, Industrial Development Board was formed in 1936 A.D., which for by lasted the "Company act" and "Nepal Bank Act" in 1937 A.D. definitely, It has started an evolution of modern banking in Nepal.

Nepal Bank ltd. established in 1937 A.D., is the first bank of the country with an objective to render services to the people and contribute the nation's development. Similarly establishment of Nepal Rastra Bank (in April 26th 195) undoubtedly was an important event in the economic history of Nepal. Under the Rastra Bank Act 1955 with objective of supervising protecting and directing the functions of commercial banking service. Following the

establishment of NEB, a number of financial institutions were established. Out of these establishment of Nepal industrial Development Corporation in 1959, Rastriya Banijya Bank in 1996, and Agriculture Development Bank in 1968 and securities exchange center in 1977 were the prominent ones for the development of financial market.

In 1980 A.D. government introduced 'financial sector reforms' which facilitated the establishment of different private Bank and financial institution in Nepal. In such historical development of financial system in Nepal Significantly in the decades of 1980's the financial liberalization policy introduced by the government in mid-eighties pared the way for the faster, healthier and competitive development of finical system in Nepal. The financial liberalization initiated by the establishment of Nepal, likewise Nepal Arab Bank Ltd. in 1984 opened and run a new vista for the establishment and promotion of financial institution. Nabil Bank Limited (in 1984 established at as first joint venture bank in Nepal, likewise Nepal Indo-suez Bank limited in 1986 (later it has been called Nepal investment Bank Ltd.) and Nepal Grindays Bank Limited in 1987 (later it has been called standard chartered Bank Limited). Nepal Bangladesh Bank Limited (in 1994 were established under joint venture, As a result a number of commercial banks increased dramatically Viz. Himalayan Bank Ltd. Nepal SBI Bank Ltd, Everest Bank Ltd., Bank of Kathmandu Ltd, Lumbini Bank Ltd., Machhapuchhre Bank Ltd., Laxmi Bank Ltd., etc.

2.1.3 Functions of Commercial Banks

Commercial banks represent the largest group of depository institution measured by assets size. Nature of business and the structure of the industry have change drastically in last decades; the role and important of commercial banks have been rapidly are also commonly known in all industrialized countries. They perform functions similar to those of saving institution and

credit union those of saving institution and similar to those of saving institutions and credit unions. They accept deposits and make loan. According to American Institute of Banking (1972:345) the major four functions of commercial bank are receiving payments handling payments, making loans and investment and creating money by extension of credit, similarly Upadhya and Tiwari (198:89) have argued that there are three major functions of commercial bank. Which are; primary function (accept deposits, provide loans and credit), agency functions (Sales and Purchase of securities, working as an agent and trustee of a customer, transfer of funds provide financial information), general functions (sales and purchase of securities; working as an agent and trustee of a customer, transfer of funds, provide financial information) general function (sat of variable assets, issue of credit instruments dealing with foreign exchange, provide trade information and statistics).

The spread between the prices received by banks on the funds lent and the price paid by than on the funds mobilized is one of them crucial factors which determine the viability of the banking operation commercial banks in Nepal provide the following main banking functions.

Accepting Deposits:

Commercial ban accepts deposits from individuals, partnership firm and corporations and also from center government (Shrestha and Bhandari, 2004:154). Accepting deposit is the major function of a commercial bank and the banker used to change commission for keeping the money in it's custody when the banking industry was known as developing institutions. In these known as developing institutions. In these days, a bank accepts mainly three types of deposits from it's customers saving deposits on which the bank pays interest relatively at low rate to the depositor customer. Depositor are allowed to with draw their money by cheque, up to limited amount during a

prescribed time period by bank, similarly, another, form of deposit is current account on which bank does not pay interest by charges certain amount instead of providing services to it's customer, businessman and traders keep their deposits in current accounts known as demand deposits. They can withdraw any amount available in their current account by cheque without notice. likewise, a bank accept fixed or time deposits from saver who do not need money for a stipulated paid from 6 months to longer periods ranging up to 10 years or more which are encouraged to keep it in fixed deposits account because there is always the maximum limit of the interest rate on fixed deposit. Fixed depositors customer relatively receives higher interest rate due to carry a fixed maturity and a stipulated interest rate but may be of any denomination maturity and yield agreed upon by the bank and its depositors. Large negotiable CPs that may be traded in open market in million of rupees that bank uses to raise money their most well to do customers (Rose, 2002;119) Nepalese banks provide 7.25 to 8.50 percent interest on 1 year deposit and 7.50 to 9 percent on 2 years and in above only fixed deposit receipt is given as an evidence of deposit.

Providing Loans:

Another primary function of commercial banks is to advance loan to its customers. A bank lends a certain percentage of the cash lying in deposits at higher interest rate then it pays on such deposits. This is how it earns profit and carries or long run sustaining the business smoothly. The banks advance loans can be mentioned in the following ways:

Cash Credit:

Cash Credit advancing loans is the collateral based loans to business man or trader's against certain specified securities. The amount of the loan is created to the current account of burrower in the case of new customer, a loan

account is opened and borrower can withdrew money through cheque according to their requirements but pays interest on the full amount.

Call Loans:

These are very short - term loan advanced to the bill bankers for not more than fifteen days, they are advanced against first classes bill or securities. Such loans can be recalled at a very short notice they can also be renewed in normal time.

Overdraft:

A bank allows the borrower to over draw his current account up to a sum equal to the loan sanctioned; Bank provides the overdraft facility up to a specific amount to the businessman's. However, bank charges interest only on the overdraft account.

Discounting Bills of Exchange:

Banks purchase bills of exchange offer discounting i.e. charging rate of interest for the time to maturity; if the holder wants its proceeds before maturity. Bank is reimbursed by the accepting on maturity. It deposits the bill in the current account if the bill holder after deducting it's rate of interest for the period of the loan not more than 90 days.

Bank Charges interest on any loans, which are usually higher than those offered on other deposits. Since the bank in Nepal is now fired to fix interest rater, the rate of interest on both deposits and loan various from bank to bank.

Credit Creation:

Credit creation is one of the most important functions of commercial banks. Commercial banks become able to grant more loan than it has own capacity. Thus, such credit creation activities fulfill the supply of money that

eventually helps to promote trade and industry in the country (Shrestha, 2052: 106-107). Bankers are dealers of money who deals other people's money i.e. bank accept deposits in the different forms and advance loans on credit to customers the bank usually synchronizes the withdrawals and deposits from their experiences. It opens a current account in their name maintaining small cash in reserve and allows win to withdraw the required to other customer also. Because there one numerous transitions have taken place. Therefore, it is true that the loans are children of deposit one credit or deposits by keeping small cash in reserves and lending the remaining amount of deposits. Therefore, the loans make of increase in the total amount of deposit in other words, loans by banks create deposits or credit is credited by banks.

Financing Foreign Trade:

A commercial banks finance foreign trade of it's customer by accepting foreign bills of exchange and collection them from foreign banks. It also transects other foreign exchange business buying and selling of foreign currency.

Agency Services:

A bank acts as an agent of it's customers while collecting and paying cheque bills of exchange, drafts, dividends etc. It also buys and sells shares, securities, debentures etc. for it's customers. Further, it pays subscriptions, insurance premium, utilities bills and other similar changes on be half of it's clients. It also acts as a trustee and executor of the property will of it's customer moreover the bank acts as consultants to it's clients for these services, the bank charges a normal fee while it renders other fee of charge.

Miscellaneous Services:

Besides these functions, Bank also act as customer of valuable of the customer by providing locker facilities where they can keep their jewelry and valuable documents. It issues various forms of credit instruments such cheque, drafts and traveler cheque act. Which facilities transactions it renders under writing services to companies and helps in the collection of funds from the public. Finally, it provides statistics on money market and business trades of the economy.

2.1.4 Introduction to Bank Capital Management

Banks are the financial institution that needs capital carryout financial transaction. A bank cannot be imagined without capital. So any legal persons company and institutions need capital to product business. Bank capital has different natures which are considered very importantly. The nature of the structure of total capital that is required for any business is called capital structure in the other words, the total sum of equity capital and the borrowed capital is called capital structure. In business issuing different types of securities can accumulate necessary capital. The management of of company should know as to what sorts of and how many securities is to be issued. It is the facts that capital and shares. Which is needed for any company or firm? Bank capital is subject to detailed regulatory requirements that attempt to ensure adequate capital to absorb normal lends of operating loser. So doing depositors are protected as well as the deposit insurer (Gupta and Kolari; 2005:343).

Money is needed to establish and operate a bank is called capital. "it is not possible to establish and operate a bank with out capital. "In this way the amount received by the bank from different sources to establish the bank to operate the banking system is called bank capital fund subscribed and paid by stockholder representation ownership in a bank regulatory capital also

includes debt components and loss reserves (Koch and Macdonald, 2004:466). Only the structure of capital for establishment of bank are described, It is clear that is necessary to establish and operate a bank is known bank capital.

The meaning of the capital varies in different place, situation and the circumstances. Amount included by any person for business and industry is called capital. The money and industry is called capital. The money contributed by the proprietors loan organization to enable it to functions; thus share capital is the amount provided by may of shares and the loan capital is the amount provided by may of loans. However, the capital of the proprietors of the companies not only consists of the share and loan capital, it also includes retained profit, which accrues to the holders of the ordinary shares. Share capital is necessary to establish any bank. At first, authorized capital is in product in share capital. This right of banks a company to collect total capital is the authorized capital. From that authorized capital the company attempts to collect certain portion immediately. The share holders may pay only partial amounts an issued capital. Such capital is called paid up capital. Hence, the NRB has ultimate power of right to decide how much capital is needed for a bank and nor bank financial institutions.

2.1.4.1 Sources of Bank Capital

Bank Collects capital from different sources i.e. capital is collected by issuing share for by taking loans from the fundamental or main sources of bank capital. In the other word, the capital can be classified in to equity capital of bank and the borrowed capital of bank. The capital collected by issuing the bank shares is called share capital. The capital received from shares, which is incrusted in the bank by the shareholders is legality considered the property of the bank (itself). The bank need not return the

amount collected from the shareholder in any form until the bank is dissolved.

(A) Equity Capital of Bank

Total equity capital equals the sum of common stock, surplus, undivided profit and capital reserves and net unrealized holding gains (loser) on available for sale securities, cumulative foreign currency translation adjustments and perpetual preferred stock (Koch and Macdonald, 2004:472-473). Owned or equity capital of a bank comprises of the amount raised from the following sources (Bhandari; 2003: 213-217)

Ordinary Shares:

A Bank accepts to take share capital as it's strongest and the most believable sources, A bank is as public limited company. The persons of the institutions, who want to form a bank by taking some shares by signing, necessary documents after getting the permission from the NRB, go to the office of the company registrant to have it registered. The persons or the institutions are called the promoters. Them the company may again callout the public people to buy the rest portion of shares by accomplishing certain legal process the bank collects the cash by selling the shares to the public. This ways the bank gets the longest part of the bank capital from the promoter share holders and the ordinary shareholders.

Preference Shares

Preference share means the share, which gets preference over the ordinary in dissolving the bank. But in Nepal the bank can't issue preference share except in special condition. The banks can collect capital by issuing preference share if the NRB gives the permission.

Bonus Share:

Bonus share means the share issued by capitalizing the saving fund of reserve fund from the profitability of company and issuing as additional share to the shareholder that word also denotes growth in the paid up price of share by capitalizing the reserve or saving fund. Giving the certificate of bonus shareholders, a bank keeps the cash fund in it.

Retained Earnings:

The bank gets income by incrusting in different sectors because the objectives of the bank are to gain profit. The bank incrusts. It's capital in the productive, profitable industry and business. The bank gains more or less income from it in a fiscal y ear, amount earned (relined) in such a way is too considered as sauces of bank capital.

Reserve Fund:

In the course of banking transaction the bank keeps some part of it's capital in the reserve fund. The ratio of this amount is based on the legal rules and regulations. The bank must some part of its income in the reserve fund. The bank invests the amount kept in such fund, in liquid sector and gains some income.

Undistributed Dividend:

A bank earns profit; such profit may be a lot or little. After it gains the profit, the bank performs the task of distributing the dividend. But the banks, to keep its financial condition strong dues net distribute the entire dividend share. It distributes some of the part of the dividend to the share holders and keeps rest of the dividend in the bank and again invests it, for which the bank should complete necessary legal process.

(B) Borrowed Capital of Bank:

In addition to above mention sources the bank collects from other sources too, the capital collected in such way called borrowed or loan capital. Following types sources can be described the loan capital.

Sales of Debentures:

The debenture means debenture bond issued by the company against pledge or guarantee of its assets. The commercial banks are considered the public limited companies because they are registered under the company act 2053 (1996), Commercial Bank Act 203 (1974) and the Nepal Rastra Bank Act 2058 (2002).if it feels the necessity up capital; it can collect capital by issuing debenture.

All type of Deposits:

A bank accepts all sorts of deposits from the person organization and institutions who opens account with it. The amount collected in the current, saving and fixed account is called borrowed capital. The amount is deposited in the above given three accounts as deposits. The bank as deposits is called bank capital bank as deposits is called bank capital it is a reliable and strong of bank capital.

Loan from the Central Bank:

The NRB is the central bank is our country. This bank is the most powerful and supreme bank. To obey the policy and instruction given by it is the legal duty of others banks, so the central bank provides the loan to the commercial banks in need.

Loan from the Financial Institutions:

In the time of need a bank can take debt from financial institution. The financial institutions too provide loan. Thus the loan amount taken by the bank from the financial institutions as loan too.

Loan from the Commercial Bank:

The commercial banks can obtain the debt with or without internal contract. Thus, during the economic crests, the commercial banks solve the problem by taking the loan borrowed as internally.

Loan from the Central Office and Branch Office:

If the central office of a bank needs the cash amount it an loan from it's branch offices, similarly of the branch offices are in need of loan they can take loan cash amount from the central offices, Branch Offices of a bank can take loan from are another known as temporary sources of loan capital.

2.1.4.2 User or Function of Bank Capital:

Any task is not performing without any causes, similarly in a bank, capital is collected for specific purpose, many reasons behind it. Naturally the banks are established with the concept of gaining profit. The function of bank capital is thus to reduce bank risk. It dues so in tree bask ways; it provides a cushion to absorb unexpected operating losses, to provide ready access to financial markets and to be a service of fund and it constraints growth and limits risk taking (Koch and Macdonald, 2004:481). The bank should gain profit for its administrative expenditure as well as for its share holders. It is not possible without the collection of capital. Therefore the following reasons for collecting bank capital or the functions of the bank capital are as following (Bhandari, 2003:217).

Payment of All types of Deposits:

The most important function of bank capital is to make cash payment to its customers. At any times; the customers, may ask the payment of amount deposited in current saving and fixed accounts in the bank, Thus, the bank should be able to give the amount, which is asked, if the bank can't give the payment, the trust of public upon the bank may decrease, and there will be

had effect upon banking transaction. The bank needs to keep necessary quantity of capital to pay the amount of deposits with its interest to its customers.

Administrative Expenses:

A bank has to make more or less expenses for its daily business transactions. It needs the capital to bear such expenses. The administrative function of the bank can't be run without capital which are incurred for salary, allonlance advertising expenses, stationary, rent, insurance, donation, commission expenses income tax and other charges.

Maintenance of Cash Reserve Ratio:

The capital is necessary to maintain cash reserve ratio. A bank has to deposit certain amount. Stack in the NRB as a cash reserve. The commercial bank should such provision. Even thought commercial bank cannot gain benefit immediately, when there is economic crisis, it given a great help. The ratio of deposit deposited in the NRB by the commercial bank, which is a compulsory Legal Provision.

Purchase of Fixed Assets:

To establish a bank, a house and land is needed. It needs a great amount of capital to buy furniture vehicles including computers and raw materials concerned with the bank. These materials are compulsory for operation of a bank. The bank has to open branches and sub branches and it needs the fixed assets, without capital such things are impossible to do.

Investment in Joint Venture:

If bank should more its investment in a rapid speed to manage itself more effectively. Sometimes it writes to invest in the profitable sectors. It can make such investment. by joining with many persons and institutions. The bank should require capital for such investment too.

Providing Loan:

Capital is required to on great extent to provide loan, among the function of bank capital, providing loans is the most important function. Especially a bank provides the following loan in the following sectors, today, of the various typeset the loan the bank provides, the loan provided in business sector keeps as special importance. In fact, still there is a tradition to provide loan by a bank through taking gold, silver, diamond, and similar important things and ornaments as securities. Bank capital fund is used to provide loan in the priority sectors. According to the policy and instruction of government and the NRB. Such loan is invested with the objective of giving economic contribution to the all round economic development of the country.

Transfer Fund:

The transfer of fund may be both national and foreign. Some part of the bank capital is used for transfer of fund. The major means for the work of transfer of fund the bank draft, postal transfer telegraphic transfer etc.

Investment in First Class Security:

In addition to above mention other uses of bank capital mention below; to distribute the divided to the shareholders, to bear the loss of banking property in purchasing and selling to bear the expenses in repairing. The house (building), machine and future etc. to pay the interest of the loan taken from other institution, to keep the reserve fund. Thus the user of the bank capital is very important, necessary and wide, in facts, by investing bank capital; a bank can gain more and more profit.

2.1.4.3 Bank Capital Adequacy System:

Capital refers principally to funds contributed by the bank's owners. Consisting mainly of stocks reserve and those earning that are retained in the bank (Rose, 2002:475) according to the accounting definition capital equals

the cumulative value of assets minus cumulative value of liabilities and represents ownership interest in a firm. In banking, the regulatory concept of bank capital differs substantiality from accounting capital. Specially, regulations include certain firms of debts and loan loss reserves when measuring capital adequacy (Koch and MacDonald, 2004:417). Capital is a source of financial support to protect an institution against unexpected losses, and therefore, it is a key contributor to the safety and soundness of the bank, Bank must meet minimum capital requirements before they can be careened, and they must hold at least the minimum requirement before they can be chartered and they must hold at least the minimum required level of capital throughout their corporate life. The federal Deposit Insurance corporation improvement Act (FDICIA) of 1991, which is created a like between enforcement actions and the lend of capital held by bank. This supervisory link is commonly known as prompt correcting action (PCA) and aims to resolve banking problems early and at the least cost to the bank insurance fund PCA has classified as (Koch and MacDonald, 2004:474

Tier 1 (Core) capital, must equal or exceed 4% of total risk heighten assets.

Tier 2 (supplementary) capital total of tier2 is limited to 100% of tier1.

Total capital (tier1+iter2) must equal or exceed 8% of total risk weighted assets.

Adequacy and inadequacy of bank capital directly affects the banking transaction. The adequacy of bank capital must important aspect of bank. If there is inadequacy of capital, the bank should take step for the adequacy of capital as pay legal requirement. The bank should remove the inadequacy of bank. Capital through the medium of collecting of ownership and borrowed capital. To have the ownership owner capital is most for the bank. It creates many opportunities. The bank should reduce the amount of the borrowed capital as for as possible. It is not good for a bank to collect borrowed

capital. Also it is not great for it to have crisis of capital. If the bank can't maintain the adequate capital, it may give birth to many defects. The defects caused by the bank capital, doesn't lead the bank for watch, therefore special attention should be given to the adequacy system of the bank capita. If them is security of capital in a bank. Bank's economic aspect can't be regarded capable and healthy. The adequacy of the bank capital is necessary for the following functions (Bhandari, 2003:223)

The payment of all types of Deposits:

Adequacy of bank capital is necessary for a bank, to give the payment of the amount of all types of deposits to it's customers, hence the adequacy of the bank capital is needed to gain trust from it's

To meet the demand of all types of cash reserve funds:

It bank should deposits the amount in different types of funds. This is a legal obligation which is created in to ways one obligation accurse by the provision of law and another obligate and directive issued by the NRB.

Investment for Banking Transaction and Business:

With the lack of an adequate bank capital, the bank can't meet daily administrative expenditure and the investment in different sectors to gain profit. A bank can't be operated unless it performs both of these functions. Directly, the above mentioned functions affects to the adequacy of bank capital.

Advantages of adequacy of bank capital and disadvantages of inadequacy of bank capital are mentioned as follows.

If the bank has an adequate capital people trust upon such bank, such bank becomes, successful to gain the trust of all sectors. If can invest in to any sector at any time from which the bank gets success to gain a lot of profit. It can invest in priority sectors, in any big project. It can move a head with its

investment. The bank does not need to take loan, and does not have to pay interest. The bank doesn't face problem to collect the capital. There will be not possibility of liquidation of bank.

If there is inadequacy of bank capital, the bank can't get the trust from any other area. It's respect and population remains in endanger (put in danger). The bank should take loan from other different areas and it needs to pay interest. The bank can't invest in its will whatever it likes. It is not possible to gain profit without investment. The bank can't give the payment to amount deposited with it the bank can't solve any crises of financial rise and fall that accurse upon it.

2.1.4.4 Implementations of BASEL II capital Accord:

Basel capital accord is a capital adequacy framework developed by the Basel Committees on banking supervision (BCBS). BCBS is a committee of banking supervisory authorities that was established by the central bank governors of the group of ten countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Nether Lands, Spain, Sweden, Switzerland, the united Kingdom and the United States, It usually meets at the Bank for international settlement (BIS) in Basel; Switzerland. Where it permanent senatorial is located. Basel II is the new international capital standard set by BCBS. It aims to replace Basel I which was issued in 1998 with an amendment in 1996 to make the capital framework risk sensitive (about the Basel committee on Banking Supervision) (http://www.his.org/bcbs). The BCBS recommendation on capital accord is important guiding framework for the regulatory capital requirement to the banking industry all over the world and Nepal is no exception.

Basel II is a major revision of the international standard on bank's capital adequacy, which requires bank to implement risk management polices that align capital adequacy assessment with underlying credit risk, market risk, and operational risk. As the BIS require all new standards to be implemented by 2007, Basel II compliance is probably the greatest challenge as well as opportunity for banks during next few years.

In the Nepalese context of implementing Basel II from July 2007, NRB organized a workshop to inform the officers and employees of Bank supervision Department and Banks and financial institution regulation department of NRB (Economic Report, 2006:75) likewise with a view to implementing Basel II in Nepalese banking sector an accord Implementation Group (AIG) with a participation of commercial banks representatives was formed to prepare their draft capital adequacy frame work with detailed guidelines on each of the three mutually entering pillars. In Basel II the minimum capital requirements, supervisory review of capital adequacy and market discipline are set as piller1, pillar2, pillar3. This framework is expected to come in to effect by 2007/08. This framework outlines the NRB's proposed guidelines based on internal convergence of capital misalignment and standard or Basel II framework. A class financial institution, licensed to conduct banking business in Nepal under Bank and financial institution Act 2063 are subject to this capital framework. NRB has developed and enforced capital adequacy based on international practices with opportunities level of customization based on domestic state of market developments.

2.1.4.5 NRB Directives Related to Capital Adequacy:

The total capital fund is the sum up cone capital and supplementary capital according to the NRB. United directive for bank and non bank FIS issue number G. Pra. Ni. No.1/061/62 (Ashad 2062 B.S.), The cone capital (tier1)

includes paid up capital, share premium irredeemable preference share, general reserve fund, accumulated profit or loss, capital redemption reserve, capital adjustment fund and other free reserve, amount of goodwill amount of invested in the financial instruments issued by an organized institution in excess to the limit specified by NRB amount invested in the financial instruments issued by the organized institution having their own financial interest, and fictitious assets. If any exists are deducted for the purpose of calculating core capital. The supplementary capital (tier2) includes general loan loss provision assets revaluation reserve, hybrid capital instruments subordinated term loan exchange equalization reserve, excess loan loss provision and investment adjustment reserve. (For format of total capital fund and NRB standard see appendix).

On the basis of risk-Weighted assets effective from FY 2062/063 every commercial bank should maintain the prescribed proportion of minimum capital fund as below:

- A cone capital of 6% at total risk weighted assets.
- Supplementary capital is not more than cone capital fund.
- A total capital fund of 12% of total weighted assets.

Also, NRB has directed the entire commercial. If capital base is inadequate, the board of director will have to recommend for it's capital enhancement plan and program and submit them to NRB with in 35 days for is a proud. If capital fund is in adequate, dividend and bonus distribution will not be allowed, as per the new regulations.

2.1.4.6 Regarding Paid up Capital Requirement:

- To establish a new commercial bank of national level the paid up capital of such bank must be at Rs. 2 billion.

- Banks that are already in operation are required to enhance their capital level to Rs. 2 billion by the end of Ashad 2070 nB.S. through constant paid up capital investment each y ear the end of Ashad 2064 being the base year.

2.1.5 Concept of Capital Structure:

The term financial structure refers the composition of all sources and fund to invest in business. Thus it represents the entire capital and liability side of the balance sheet or the other hand the term capital structure is used unrestrictive sense. It refers to the composition of long term sources of finance such as preference share capital debenture long term debt and equity capital including reserve surpluses (i.e. retained earning and exclude short term debt). This capital structure is a part of financial structure capital structure is about analysis of the capital composition of the company. "Capital Structure is the permanent financing of the firm, represented by long term debt, preferred stock and common stock but excluding all short term credit, Thus a firm's capital structure is only a part it's financial structure. i.e. common stock, capital surplus and accumulated retained earning (western and Brigham, 1989:666) capital structure or the capitalization of the firm is the permanent financing represented by long term debt., preferred stock and shareholders equity. Thus a firm's capital structure is only part of it's financial structure (western and Copeland, 1992:565). The term capital structures used to represent the proportionate relationship between debt and equity the market value of share may be affected by the capital structure decision (Pandey 1995:573)

Financial manager must strive to obtain the best financing mix or option capital structure for his/her firm. The firm's capital substructure is optimum when the market value of share is maximized. The used of debt affects the return and risk of shareholder this will increase the return on equity but also,

the risk at the market value per share will be maximized and the firm's capital structure would be optimum (Pandey, 1995:663). Both debt and equity are used in most large corporations. The choice of the amount of debt and equity is made after a comparison of certain characteristics of each kind of security, of internal factors related to the farm's operation and external factor that can affect the firm's (Hampton 1986:42) the choice of the debt and equity largely depends on the three factors such as cash, risk and control. The cost of capital is required rate of return for the fir. The risk ness of a firm alert with the charges in debt equity mix and so on earning and maintaining control can be favorable whenever capital structure decision are made.

2.1.6 Optimum Capital Structure:

An optional capital structure would be obtained at the combination of debt and equity that maximize the total value of the firm (value of debt plus value of stock or minimize the WACE (Pandey, 1995:675). Capital structure decision affect the value of firm earning per share and cost of capital, the objective of the company are always related to maximizing the value of firm, earning per share and minimizing the overall cost of capital. To achieve this objective company should make the appropriate composition of capital structure, which is also known as optional capital structure.

Optional capital structure can be defined as that mix of debt and equity which will maximize the market value of this firm. If such as optional does exists it maximizes the value of the company and heave the wealth of its owners maximizes. It minimized the company is cost of capital, which is turn increase its abilities to find new wealth creating increasing opportunities (Ezra, 1969). The optional capital structure is is the one that strikes the optional balance between risks and return and then by maximizes the value of the firm, earning per share and minimize the weighted average or overall

cost of capital. Therefore the firm should determine appropriate capital structure, to achieve its targeted objective of maximizing the shareholders wealth "Although, it is theoretically possible to determine the optional structure, as a practical manner we can not estimate this structure with precision" (Weston and Brigham, 1989:719)

2.1.7 Basic Assumption and Definitions:

It is necessary to make some assumption in order to have the better understanding about capital structure theories the theories of capital structure make certain assumption to show signs of the influence of mix debt in the capitalization on the valuation of the firm. Using more debt raiser the risk burned by shareholders and leads to a higher expected rate of return on equity. To present the analysis as simple as possible we have the following assumption (Van Horne, 1983:252)

- There are no corporate and personal income taxes, no bankruptcy cost (letter we remove these assumption)
- The ratio of debt to equity for the firm can be changed by issuing debt to repurchase stock or issuing stock to payoff debt, but the firm is total assets remain constraint. In this regard, there is no transaction cost.
- The company pays 100% of its earning as dividend.
- The expected value of the subjective probability distribution of expected future operation earning for each company are the same for all investors in the market.
- Company's operating earning remain constant that mean neither increase nor decrease, so the growth rate is equal to zero.
- Firms employ only two types of capital i.e. debt and equity.
- The life of firm is per perpetual.

Cost of capital and their respected values can be calculated by using following formulas:

Cost of debt (K_d) $= \frac{I}{D}$

Market value of Debt (D) $= \frac{I}{KD}$

Cost of equity (K_e) $= \frac{EBIT - I}{V - B} = \frac{NI}{S} = \frac{EBT}{S} = \frac{\text{earning available to equity}}{S}$

Market value of equity (S) $= \frac{NI}{Ke}$

Overall Cost of Capital is the weighted average cost of equity and cost of debt.

Thus, overall cost of Capital (K_0)

$$= \frac{Kd\left(\frac{D}{D+S}\right)}{Ke} + Ke\left(\frac{S}{D+S}\right) = \frac{EBIT}{V}$$

The value of the firm is combined value of debt capital and equity capital, so,

$$V = (D + S) = \frac{EBIT}{Ko}$$

Where,

S	=	Market value of stock (equity)
D	=	Market value of Debt
V	=	Total market value of firm (S+D)
K_e	=	Equity capitalization rate
K_o	=	Overall capitalization rate
K_d	=	Lost of debt
I	=	Amount of annual interest in total
EBIP	=	Earning before interest and taxes
EBI	=	Earning before taxes

2.1.8. Theories of Capital Structure:

Capital structure is the determinant of overall cost of capital and it affects the value of the firm by affecting either in expected earning or in the cost of capital or in both Alternatively, the use of debt in capital structure affects value of the firm through the cost of capital and optional capital structure exists in practices optional capital structure is the mix of that capital component which leads maximum value and minimum overall cost of capital in the firm. There are various theories relating the capital structure the firm, capital structure decision affects the total market value of the firm earning per share and firm's cost of capital. So the theories of capital structure closely related to the firm's cost of capital so the theories of capital structure closely related to the firm's cost of capital. so the theories of capital structure have been developed in the structure have been developed in the field of financial management. Some of them are considered below:

- Net Income (NI) approach
- Net operating income (NOI) approach.
- Traditional Theory
- Modigliane and millor model
- Millar model

Net Income (NI) approach

A theory of capital structure in which WACC and total value of firm with change when financial leverage (DIS) changes. Under NI approach the cost of debt and cost of equity remains unchanged, when leverage radio (DIS) Charges. The WACC declines and the total value of the firm rise with increased value of leverage. Then essence of net income approach is that the firm can increase its value of lower the firm can increase its value of lower the overall cost of capital by men easing the proportion of debt in the capital structure" (Pandey, 1995:678).

- Change in leverage does not change the risk perception of investors. As a result, cost of equity (K_e) and cost of debt (K_d) remain constant with the change in leverage.
- Cost of debt (K_d) is less than cost of equity (K_e)
- When leverage in crease, overall cost of capital decreases but value of the firm increase, the corporate income taxes do not exist.

The overall lost of capital is measured by following formula.

Value of Stock (S) $= \frac{NI}{Ke}$

Value of the firm (V) $= B + S$

Overall cost of capital (K_0) $= \frac{EBIT}{V}$

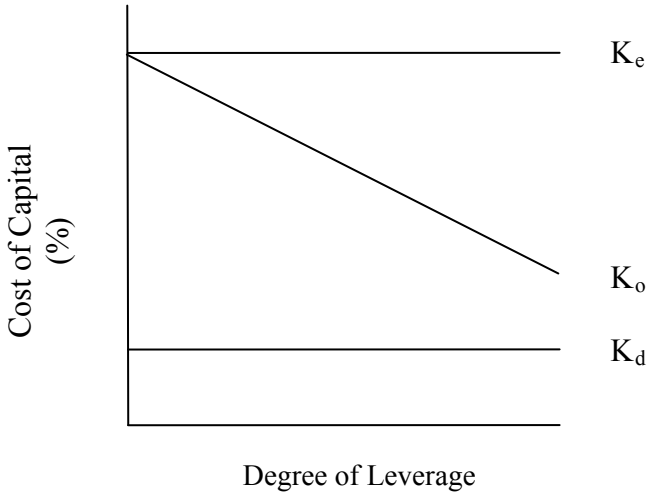
The overall cost of capital can also be measure by using the following the formula equation:

$$K_o = W_d K_d + W_e K_e = kd\left(\frac{D}{V}\right) + ke\left(\frac{S}{V}\right)$$

As per assumption of NI approach, when leverage ratio changes cost of rate and cost of equity remains unchanged. Cost of dept is less then cost of equity. When leverage ratio increase overall cost of capital (K_o) decreases due to receive higher weight by dept in the calculation of WACC. The effect of leverage on the cost of capital under NI approach can be shown by the following figure:

Figure No. 2.1

The effect of leverage on cost of capital (under NI approach)



Source: Bhattarai, 2003: 345

In the figure 2.1, the degree of financial leverage is shown in the horizontal axis and cost of capital (K_e, K_d, K_o) in the vertical axis. Under NI approach, K_e and K_d are assumed net to change with leverage as the portion of debt is increased in the capital structure. It causes WAC to decrease. The optimal capital structure would occur at the point where the value of the firm is maximized, which minimizes WACE.

Net operating Income (NOI) Approach

A theory of capital structure in which WACE and total value of firm (V_O) remain constants where financial leverage is changed as a result the WACE remain constant and the total value of the firm also remain constant as leverage is change or the market value of firm is not effected by the capital structure changes.

The NOI approach is dramatically opposite to NI approach. The concentrate of this approach is that the leverage of capital structure decision of the firm is irrelevant. Any changes in that total value of the firm and market price of

the share as the overall cost of capital is independent of the degree of leverage. The critical assumptions of NOI approach are (Pradhan, 1992:359).

- The market uses an overall capitalization rate (K_o) to capitalize the NOI, K_0 depends upon the business upon the business risk is assumed to remain unchanged, K_0 is constant.
- Debt capitalization rate (K_d) remains contants.
- If the use of less costly debt fund increase the risk of the shareholders increase so, the equity capitalization rate (K_e) increase.
- Return on equity (K_e) increase linearly with increase in debt ratio.
- The corporate income takes do not exists; the market value of equity is the residual value.

The cost of equity (K_e) is considered as follows:

Value of firm (V) $= \frac{EBIT}{Ko}$

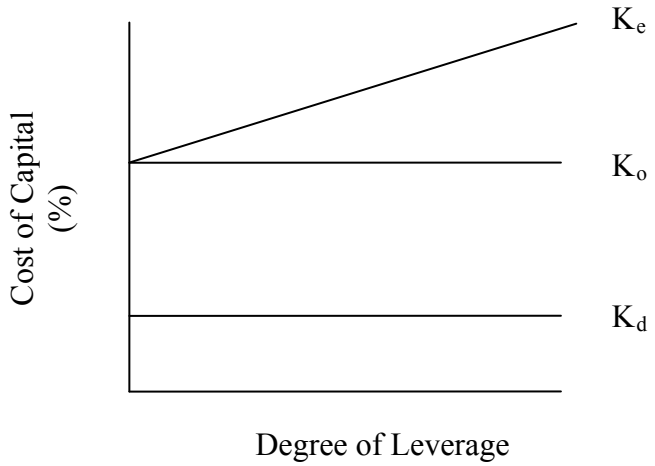
Value of the equity (S) = V – D

Cost of equity (K_e) $= \frac{EBIT - I}{V - D} = \frac{EBT}{S} = \frac{NI}{S}$

The effects of leverage on the cost of capital under NOI approach can be presented as below,

Figure No. 2.2

The Effect of Leverage on Cast of Capital under NOI Approach



Source: Bhattarai, 2003: 345

In the figure 2.2, it can found that the overall capitalization rate (K_o), and debt capitalization rate (K_d), is constant and the equity capitalization rate (K_e) increase with leverage continually. Its the cost of capital (K_o) is constant, this approach implies that there is not any unique optional capital structure. In other words, as the cost of capital is the same at all level of leverage so, every capital structure is optional. Like NI approach the NIO approach also assumes a constant rate of K_d, which means that the debt holders do not demand high rate of interest for high level of leverage risk But equity holders do reach to higher leverage risk and demand higher rate of return for high debt equity ratio (Van Horne, 1983:254).

Traditional Approach

The traditional theory of capital structure has popularized by Soloman Ezra which is also known as intermediate approach a compromise between NI approach and NOI approach. "The traditional approach to valuation and leverage assumer that there is an optional capital structure that the firm can increase the total value at the firm through the judicious use of leverage the approach suggest that the firm the firm initially can lower its cost of capital

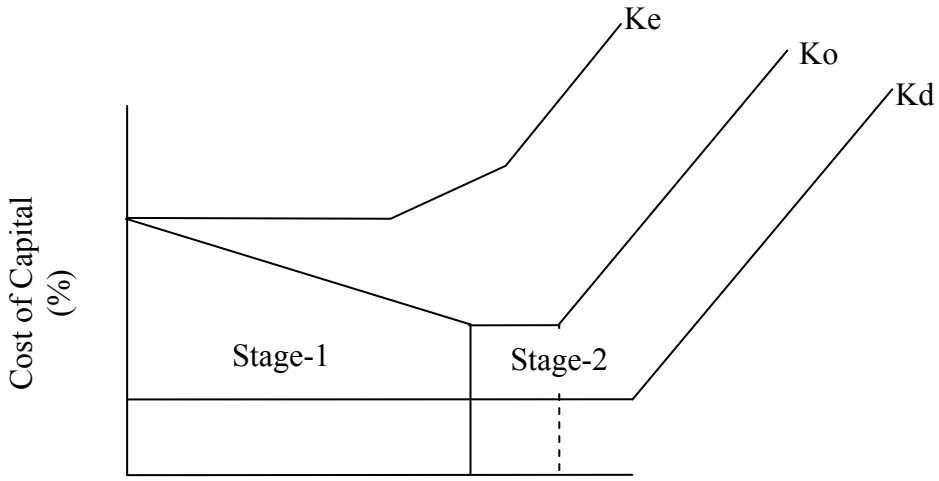
and raises its value through leverage" (Van Horne 1983:254). Both K_d and K_e are relatively constants up to some point of leverage then both cost begin to rise sharply with increase in leverage. As a result, 'U' Shaped of WACC indicates value of the firm first raises, then reach a pick and finally declines as a leverage increase, main proposition of tradition approaches are.

- Cost of debt (K_d) remain more or less constant up to a certain degree of leverage but rises there after an increasing leverage.
- Cost of equity (K_e) remains more or less constant or rises after certain degree of leverage sharply.
- The overall cost of capital firstly decrease up to a certain point, then mine or less uncharged and finally rises beyond certain leverage.

According to the traditional position, the manner in which the overall cost of capital reach to changes in capital structure can be divided in to three stages (Ezra, 1969:94). Such as, increasing value optimum value (maximum value and dealing value) which can be clearly shown by following figures:

Figure No. 2.3

The Effect of Leverage on Cast of Capital under Traditional Approach



Source: Bhattarai, 2003: 347

In the above figure 2.3 it can be found the dept capitalization rate (K_d) remains constant of to certain degree of leverage but rise there after an increasing leverage and the overall capitalization rate (K_o) firstly decrease up to a certain point then more or less unchanged and finally rises beyond certain leverage and equity capitalization rate (K_e) remains more or less constant or rise after certain degree of leverage sharply.

The optimal capital structure is point X, thus traditional position implies that the cost of capital is not independent of capital structure of the firm and that there an optimal capital structure.

Modigliani and miller approach (MM Model):

Frnco Modigliani and morten miller showed that firms overall cost up capital and value of firm are in depended with capital structure under certain assumptions. The Modigliani and miller (M-M) hypothesis is identical with a NOI approach. M-M argues that, in an absence of taxes, a firm's market value and cost of capital remain invariant to the capital structure changes. In their 1958 article they provide analytically sound and logically consistent behavioral justification in favor of their hypothesis, and reject any other capital structure theory as in correct (Paney 1995:686). The modigliani and miller (M-M) explain their theory based on the following important assumptions.

- Capital market is perfect, information is costless and readily available to all investors. There are no transaction and brokerage cash of buying and selling securities and all securities are infernality divisible.
- No personal ten and corporate tax is assumed. M-M removes this assumption later.
- All investor can borrow or lend at the same rate with out restriction.

- All investors are national and have homogeneous expectation of firm's earning and riskyness of these earning.
- All cash flows are perpetuities, EBIT and bonds are perpetual and all firm expects zero growth.
- From can be categorized into "equivalent return" classes. All firms with in a class have the same degree of business risk.

M-M Hypothesis without Taxes

Proposition I

The proposition assumer that the market value of the firm is independent of its capital structure. The value of the firm is established by capitalizing its net operating income (EBIT) at the constant date which based on the firm's risk class in other words, M-M agree that for the firm in the same risk class, the total market value in independent of the debt equity mix and is given by the rate apporpriate to that risk class. This can be expessed as follows:

Value of firm (V) = Market value of debt (D)+ Market value of equity (S)

$$= \frac{\text{Expected net operating income}}{\text{Expected overall capitalization rate}} \qquad = \frac{\text{EBIT}}{\text{Ko}}$$

For an un-levered firm, $Vu = \frac{\text{EBIT}}{\text{Keu}}$

Where,

K_o = K_eu, in case of un-levered firm

Since, value of firm is constant and then under the M-M model when there are no taxes, the value of firm is independent of its leverage. This also implies that (Bringham, Gapanski and Ehrhardi, 2001:623)

- The WACI of the firm is completely independent of its capital structure.
- The WACC for the firm regard less of the amount of debt used is equal to the cost of equity is it would have if it uses no debt.

According to this proposition, there is no relationship between value of firm and the way its capital structure is made up, nor are they any relationship between the overall costs of capital and capital structure.

Proposition II

According to this proposition, the cost up equity (K_e) is a liner function of leverage, measured by the market value of debt to equity (D/S). The cost of equity of a levered firm (K_{eL}) is equal to the cost of equity of un-levered firm (K_{eU}) in the same risk class plus risk premium where size depends on both differential between un-levered firm's cost of equity and debt and the amount of leverage used.

$$K_{eL} = K_{eU} + \text{Risk Premium}$$

$$K_{eU} + (K_{eU} - K_d)\ D/S$$

Where,

K_{eU} = Cost of equity of un-levered firm

K_{eL} = Cost of equity of levered firm

K_d = Cost of debt

D = Market value of firm's debt

S = Market value of firm's stock

According to the above equation, as the firm's use of debt increase, its cost of equity also rises. Thus proposition shows the impact of financial leverage on the cost of equity Due to the increase in leverage, firms gets the benefit of

cheaper debt but the benefit is exactly off set by an increase in the cost of equity in the form up rise premium expected by the shareholders, against an increase in financial risk.

Taken together, the two M-M propositions imply that the inclusion of ore debt in capital structure will not increase the value of the firm. Because the benefit of cheaper debt will be exactly offset by an increase in the riskyness. Hence in the cost of its equity. Thus M-M argue that in the world with out taxes both the value of the firm and WACE would be unaffected by its capital structure.

M-M Hypothesis with Taxes

Proposition I

The value of levered firm is equal to the value of un-levered firm in the risk class plus. The gain from leverage is the gain from leverage is the value of tax saving found as the product of the corporate tax rate (T_C) times the amount of debt the firm uses.

Value of levered Firm = Value when un-levered +Present value of tax shield

$$V_L=V_U+D.T_C$$

Here, the important point is that when corporate tax introduced, the value of levered firm exceed that of the un-levered the gain from leverage as debt increase in theory a firm's value is maximized at 100% debt financing with zero debt, the value of firm is equal to the firms value of equity. The value of un-levered firm can be found by using following equation.

$$Vu = \frac{EBIT(1 - Tc)}{Keu}$$

Where,

V_l = Value of Levered Firm

V_U = Value of Un-levered Firm

T_c = Corporate Tax Rate

K_{eU} = Cost of equity un-levered Firm

Proposition II

Only this proposition the cost of equity of levered firm is equal to the cost of equity of an un-levered firm in the same risk class plus a risk premium whose size depends on the differential between the cost up equity and debt an un-levered firm, the amount of financial leverage used and the corporate tax rate.

$$K_{eL} = K_{eU} + (K_{eU}-K_d)(1-T)(D/S)$$

Where,

K_{eL} = Cost of equity of levered firm

Cost of equity of levered firm the M-M view under tax consideration suggest that because of tax deductibility of interest charges a firm increase its value or where its cost of capital continuously with leverage. Thus the optional capital structure is reached when the firms employ 100% debt in its capital structure but the observed expenditure does not entirely support this view in practice firm do not employ Lange amount of debt nor are lender ready to lard beyond earlier limits. M-M suggest that firm would adopt a target debt ratio so as net to violate the limit of debt level impost by lenders ready to lend beyond certain limits. M-M suggest that firms would adopt a largest debt ratio so as not to violate the limit of debt level imposed by lenders.

The Miller Model

M-M introduced the theory first by assuming the absence of corporate and personal taxed in 1958. Later on 1963 they developed their theory by considering the corporate taxes. Although, M-M introduced corporate taxes

in the second revision of their model. They did not extend tax model to include personal taxes. "However in his presidential address to the American Finance Association, Merton miller introduced a model designed to show how leverage effect firm's value when both personal and corporate taxes are taken in to account" (Bringham, Gapenski and Ehrhart, 2001:632). Due to the miller argument, charges in the capital structure have no effect on the firm total valuates. This position is the same as M-M's original proposition in the world of no taxes. But it contrasts sharply with their corporate adjustment article, in which they found that debt has substantial advantages.

Miller model suggest that in market equilibrium personal and corporate tax effects cancel out. He assumes that the personal tax on stock income (T_{PS}) is zero. Accordingly his model implies that at the margin, the personal tax rate on debt income (T_{PD}) must equal to corporate tax rate (T_C). When $t_{pd} = t_c$ changes in proportion of debt in the capital structure decisions by the corporation would be irrelevant (Van Horne, 1983:264)

With personal taxes included, under the same set of assumptions used in the M-M model the value of an un-levered firm is found as follows.

$$Vu = \frac{EBIT(1 - Tc)(1 - Tps)}{Keu}$$

The value of levered firm under Miller Model can be found as follows:

$V_l = V_u$+ Present value of debt tax shield

$$Vl = Vu + D\left(1 - \frac{(1 - Tc)(1 - Tps)}{(1 - Tpd)}\right)$$

Where,

T_c = Corporate tax rate

T_{pd} = Personal tax rate on income from debt

K_{eu} = Equity capitalization rate of un-levered firm

2.1.9. General Concept of Profitability

Profit is termed as to depict the surplus resulting after a defined trading period but must be regarded as the first essential charge upon business, being a reward a for engaging resources in condition of speculator risk for the satisfaction of consumer resources of speculative risk for the satisfaction of consumer demand. This is more than the money spent. The term profit can be used in two senses. As a owner oriented concept it refer to amount and share of national income which is paid to the owners of business, that is those who supply equity capital as variant it is described a profitability is a variation of the term profit which explain ability to make a profit is a primarily a measuring rod of success of business enter pries. It is the basic test of per romance of any business simply stating profit is money excess of sale over money spent but the term "profit" is very controversial and they're as several different interpretation about it. In this regard American Institute of banking (1972) says. "Under the free enterprises system like USA, the interest of the nation as well as those of the individual stock holders is supposed to be best served by vigorously seeking profit. But the profit can not be a self objective of an enter pries and an enterprise should not be evaluated just on the ground of the profit it earned. Neither bank nor the community will be best served if the banker unreasonably sacrifices safety funds of the lightest of bank in an effort to increase income".

Profit is the reward of enterprise ships for risk taking. A labor leader might say that it is a measure of low efficiently labour has product and that it provides a base for negotiating a wage increase and investor will view it is a gauge of the return on their money. An internal revenue agent might regard it as a base for determining income taxes. The accountant will define it simply

as the excess of firm's revenue over expenditure of producing revenue in given fiscal period (Lynch and williamson, 19898:99). Every business firm has different types of aspiration profit maximization is the one of goal of business firm. Profit is very important for business firm is equally important as for fish in water to cover costs of staying in business such as replacement of machine market or technical risk etc. profit is essential in the sense to ensure supply of future capital. It provides capital through retained profits according to the self. Financing principal via it provides structure and helps to minimize cost of capital. Profit of business is attraction for investors. So investors would invest their money where there is adequate profit. Hence, profit is required to ensure and satisfy the entire expectation of management share holder's investors, employees and nation all together.

2.1.9.1. Conventional Approach towards Profit

Profit maximization is the conational approach of business environment and economic theory on the ground of profit for firm. So it the managerial economics, to maximize profit is the inner principle. "Profit is the measurement of the business firm's overall performance. A business firm can declare it to be successful if it can maintain maximum profit to give good reason for the worth of return on investment. This helps business firm to since from shortage of funds and provides best opportunities to under take the expansion of assets to enlarge business. (Shrestha, 1980: 23-24). The term profit maximization is deep-rooted in the economic theory. It provides yard stick by which economic performance can judged it leads to efficient allocation of resources it leads to efficient allocation of resources it insure maximum social welfare (Khan and Jain, 1992:12).

The potential of profit provides a strong incentive to owners and manager to act efficiently. Therefore it is common in economic theory to hypothesis that the criteria fro that remains after deducting both explicit and implicit costs,

including normal profit considered of the entrepreneur's services. "Profit is essential every enterprises to survive in the long run as well as to maintain capital adequacy through retained earnings. It is also necessary to accept market for both and equity to provide fund for increased assistance to the productive sector" (Rubinson and Wrightman, 1990, 21-22).

2.1.9.2 Modern Approach towards Profit

Business environment is totally different from earlier period to now. In ancient time, one of core objective of the firm was profit maximization. But in present days, sales maximization is the major objective of the firm. So that firm's objective may be to maximize its growth rate or satisfaction shareholder's health maximization.

Nowadays, every business firm finance by equity owners, creditors professional management in connection with customer employees, government and society concerted with firm. Besides other aim of business firm, wealth maximization of shareholder's is normal objective of firm or other wise a firm should set a standard for reasonable profit. There are intimidation gives to profit maximization and the economists to the profitability concept of firm give so many alternatives. Though there are denials towards economist still do not have unified views to cover the alternative model when market are perfect competitive, monopolistic from, so the profitability model is sill in the existence. A business firm still prefers to maximize profit as for as possible. Business has multiple goals and needs of survival, goodwill security and broth commonly calls for some sacrifice of short term profits. Must business does however rate profitability consistently high between their long objective and it could be argued short-term goal such as security and growth rate infect subordinate to long term profitability (Savage and Small, 1967:30).

2.2. Review of International Journals:

Abor (2005) has conducted a study on "The effect of capital structure on profitability an empirical analysis of listed firms in Ghana this paper seeks to investigate the relation ship between capital structure and profitability of listed firms on the Ghana Stock Exchange (GSE) during a five y ear period. Regression analysis is used in the estimation of functions relating to ROE with measures of capital structure. The results reveals significantly positive relation between the ratio of short term debt to total assets and ROE, However, a negative relationship between total debt and return rates the results shares a significantly positive association between and return on equity. The research suggests that profitable firms depend more on debt as their main financing option. In the Ghanaian case, a high proportion (85%) of the debt is represented in short term debt.

Davis and lee (1997) conducted a study on "A practical Approach to capital structure for Banks" In this article; American's bank's attention to capital structure is reflected in their high level of stock repurchase in recent years. The most important differences comes from regulation. Since the implementation by FDICIA of risk based Capital guidelines in the early 1990, the capital ratios of U.S. banks have increased substantially. In fact, most U.S. bank today carry considerably more capital than is required by the regulation. This tendency to exceed regulatory capital level is especially pronounced for smaller institutions, which can in turn be explained by the riskier profile of smaller banks they also have a much greater degree of co-variance amount their riskier assets. This article recommends using a quantitative economic approach to general a lower bound on the amount of necessary capital. This estimate can then be translated into a largest capital structure taking account of a variety of practical, qualitative considerations including bank preference to maintain capital levels that provide a

comfortable margin above bank regulation "Well capitalized" levels. Although such consideration will very in importance from are bank for another, they will generally include management's risk tolerance regulatory constraints market pressures, the banks prospects and investment plans and for longer banks prospects and investment plans and for longer banks, rating agency requirements.

2.2.1 Review of Nepalese Journals/Articles:

Paudel (2002) has conducted the study on "Investing in shares of commercial Banks in Nepal: An assessment of Return and Risk Elements." The key objective of the study is to examine whether the share of commercial banks in Nepal are correctly priced and to trace their future prices movements when striving toward equability. He has conducted that share here are not in equilibrium with most of share being less risky than the market. While all the shares examined appear to be attractive to the potential investors since they produce higher rates up return than that of the average stocks the various share have degrees of risk with some shares being unable to general minimum rate of return.

Pradhan (2003) has conducted the study on "Role of saving, investment and capital formation in economic development, A case of Nepal". The purpose of this paper has been to investigate the role and impact of saving, investment and capital formation on economic development. The macro economic variables are introduced vide an extension of the econometric model various regression modes. This paper has been based on secondary data only. The necessary data on saving investment, capital formation and gross domestic product has been collected for the period of 1974/75 to 2000/01 at current price and in real tears with the entire study period divided in to different sub periods. The result presented in this paper suggest that in all cases DEP is significantly associated with saving investment and capital

formation both investment and capital formation both of current prices and in real terms. The result of empirical analysis led to three important conclusions. Saving, investment and capital formation have positive impact on economic development. The current values and past values of saving investment and capital formation have positive impaction economic development but the current values have the longest impact there is a story role played by saving and capital formation on economic development while weak role played by investment.

Baral (2005) has conducted the study on "Capital funds and capital Adequacy of commercial banks in Nepal" The main objective and capital adequacy ratio in this paper using the data set published by NRB, commercial banks and Nepal stock exchange ltd. In addition to this an effort to check up the financial health of the commercial banks, in aggregate through debt service ratio, capital adequacy ratio and trend analysis of paid up capital total debt and debt to equity ratio has been made in this study. From this study commercial banks are maintaining the capital adequacy ratios within the limit of the standard set by NRB. This finding concludes that NRB seems successful to regulate and monitor the capital of commercial bank have held the adequate capital to support their risk adjusted assets. During the study, period total debt to equity ratio of commercial banks is quite high. This concludes that commercial banks are highly averaged and they have lower margin of safety to the depositors. But the decreasing trend in debt to equity ratio and increasing trend in interest coverage ratio suggest that they are improving their financial health and increasing the cushion to deposits.

Shrestha (1990) has carried out a study on the article entitled, "Capital Adequacy of Bank; the Nepalese context" has thrown prosecution over to the capital base that it should be to much leading to inefficient allocation of

scare resource nor so weak so as to expose to extreme risk while dealing higher risky transactions to maintain strong capital base. He accepts the fact that the operation of banks and the degree of risk association with them are subject to change country wise, bank wise and time period wise. Therefore the study entirely suggests presenting standard capital adequacy ratio for each individual bank keeping in mind various relevant factors.

2.2.2 Review of Master's Dissertations

This section is concerned with the previous research works done by different scholars. So, it includes the review of dissertations submitted by research pioneers in the field of commercial bank. Several thesis works have been conducted by various researcher regarding different aspects of commercial bank such as capital structure, financial performance investment policy, interest rate structure and resource mobilization. Except from the findings of some for these research works one presented which are relevant for this study.

Pathak (1999) has conducted a study on "Capital Structure and profitability; A comparator case study between Nepal Indosuez bank ltd. and Nepal Grindlays Bank Ltd.," has found that both banks are highly leveraged of capital structure and suggested that the bank are require to maintain imported capital structure by increasing equity base i.e. issuing more capital expanding general reserve and relieving more earning. Both banks having geared up capital structure position and in sufficient return representing weak aspect up these two banks are suggested to use the resources in to the most forfeitable sector.

Devkota (2002) has conducted a study on "An Analysis of capital structure of Necon Air Ltd. has lasted various ratios correlation coefficient and capital structure approaches related to the leverage. Her study is base to find out the debt serving capacity growth rate and capital structure approaches. She

concludes on her study that debt serving capacity of the company in highly positive. Position of debt is higher so most of the assets were financial by debt capital. The relationship between it and interest payment. Company is operating in the risky condition. EPS is in fluctuating trend and revenue generation is normal. So, she recommends the company to well plan it's capital structure, improve in debt serving capacity, control one total expenditures revise the capitalization rate and expand operation.

Sharma (2005) has conducted a research on capital structure of selected commercial banks in Nepal. "The objective of the study was to analyze the proportion of total debt and equity capital as well as the supplementary capital adequacy of the commercial banks. The study was based on the financial data of five years i.e. 2056 B.S. to 2060 B.S. in that study financial tools, capital adequacy ratio core capital adequacy ratio, supplementary capital ratio, total debt to equity ratio, interest coverage ratio were liked on the other hard average, standard deviation, coefficient of variation, least square trend analysis was used in statistical tools. Through his study he brought out the conclusion that the banks are using the higher proportion of total debt in their total financing and the outsiders have invested more in total assets of the bank are compared to the owners. Moreover, the Nepalese commercial banks are highly levered and they are lacing higher advantage of leverage in owning total assets as a result there is lower margin of safety to the outsiders in these institutions. Furthermore, he drew the conclusion that the supplementary capital of the banks is sufficient or adequate. However the banks are trying to decrease the contribution of supplementary capital in capital adequacy due to declining tendency of the ratio.

Alam (2008) has conducted a research on capital structure of selected commercial banks in Nepal. "A comparatively analysis of Capital Structure Management between Nepal Investment Bank Limited and Himalayan Bank Limited". This study has tried to cover the various aspects of capital

structure of the NIBL & HBL for the time period of seven years from FY 2000/01 to 2006/07. Total fixed deposits of NIBL were increasing during every fiscal year except in FY 2002/03. Thus, NIBL was giving more emphasis to increase fixed deposits during every fiscal year but due to high cost of fund, the bank has given importance to decrease fixed deposit in FY 2002/03.

The portion of total debt in shareholders' equity was increasing throughout the study period except in FY 2002/03 and 2005/06. Similarly, the debt to equity ratio of HBL was decreasing except in FY 2005/06.

Return on assets of both the banks was fluctuating throughout the study period and are not satisfactory. In average, NIBL had more return on assets than HBL. The negative change in rate on return of assets shows that the bank had not been able to utilize its resources is most profitable projects. The C.V. of NIBL was more than that of HBL. Thus, there was more variation of return on deposits in NIBL than HBL.

There are various studies have been conducted in the past on intellectual capital financial performance, investment policy, capital structure as well as dividend policy of commercial banks this study is also assumed as an emerging aspect in commercial banking shelters in these day. Therefore an effort has been contributed to study about the capital structure capital adequacy and profitability management of sampled DPBS in Nepal.

2.3 Research Gap

There were so many researches who conducted their research on different headings. Those researchers researched on different headings like: Capital Structure and profitability of different companies and banks. However there is no previous researcher made on Capital Structure, Capital Adequacy and profitability management of BOKL and MBL. The research is based on secondary data. The researcher has used current data from F/Y 2005/06 to 2009/10.

CHAPTER THREE

RESEARCH METHODOLOGY

NRB is chapter provides the overall framework or plan for the collection, presentation and analysis of data required to fulfill the objective of the study. Research methodology is the way to solve the systematically about the research problem. It also specifies the method and procedure for acquiring the information needed to solve the research problems. This chapter includes research design, population and sample, nature and sources of data, method of data collection, data analysis views and limitation methodology. So, research methodology is a sequential procedure and methodology should be adopted (Kothari, 1992:17).

3.1 Research Design

Research design is outline, plan ad strategy of investigator to obtain answer to research question and to control variance. It is proper framework procedure technique that helps to do research in any field at minimum cost and time successfully manner. So it includes analytical, descriptive and evaluative, study of the collected data. The related data with topics are collected through financial statement of the bank and other available source. Here, different financial and statistical tools are applied to examine the facts about the bank capital and sustainable profitability management.

3.2 Population and Sample

NRB is the central bank, which perform regulating and monitoring role of all financial institution in the liberalized financial environment. Altogether, there are 31 commercial banks in Nepal are running out of which 3 banks are public and 28 banks are private sector banks including 6 foreign joint

venture banks including and 25 banks DPBS. To meet the objective of the study only two DPBS viz. Bank of Kathmandu Limited (BOKL) and Machhapuchhre Bank Limited (MBL) are selected purposively by using convenience sampling method.

3.3 Nature and Sources of Data

The required study is based on taking the data from secondary sources such as; annual reports published by relative banks and complied data from the NRB website, unpublished thesis, research studies books, available journals and articles are used as major sources of data.

3.4 Data Collection Procedure

Basically the study is based on secondary data from secondary sources for the purpose of study, annual reports, balance sheet, P&L a/c and other relevant data of the respective DPBS are used as major sources of data. In addition to this, NRB publications are collected from the website of NRB.

3.5 Data Processing and Analysis

First of all, necessary data were extracting from the published documents and audited financial statements were recorded in master sheet manually then data were entered into the spreadsheet to workout the financial ratio and prepare the necessary figures, finally, different ratios were workout with the help of computer programs like MS-Excel, and SPSS.

3.6 Data Analysis Tools and Techniques

In this study, financial and statistical tools have been used for data analysis, according to the pattern of data available to the objective of the study. Data have been transformed from raw to meaningful information and presented in tables and figure as required. Then the results are properly interpreted. The collected data have organized tabulated, processed and analyzed using

financial and statistical tools as described in the following section it's mentioned earlier, this study is confined to the comparative analysis of capital structure, capital adequacy and profitability of the two DPBS. To obtain the objective, the collected data were computed and analyzed using the financial and statistical tools.

3.6.1 Financial Tools

To make rational interpretations, keeping with the objectives of the study, various analytical financial tools have been used in the study, which has mentioned below:

a. Total Dept to Equity Ratio

The debt to equity ratio indicates the relationship between debt and equity capital. It is used to appraise the capital structure of a bank. It measures the relative claim or contribution of creditors and owners against the bank's assets or financing debt to equity ratio can be determined in different ways. For the purpose of this following model is used:

$$\text{D/E Ratio} = \frac{Total\ Debt}{Total\ Equity\ Capital} \times 100$$

Where,

D/E Ratio = Debt to Equity Ratio

Total Debt = Long Term Debts + Current Liabilities

Total Capital = (Share Capital + Share Premium + General Reserve + Accumulated Profit + Other Fee Reserves)

b. Interest Coverage Ratio (ICR)

Interest wherever ratio is another tool to appraise the capital structure of levered bank, which is determined by dividing EBIT to interest charges. It reflects the debt servicing capacity of a firm. Thus the ratio is used to

analyze he debt servicing capacity of the banks. Following is the expressing of interested leverage ratio:

$$\text{Interest Coverage Ratio} = \frac{EBIT}{Interest\,Charges} \times 100$$

Where,

ICR = Interest coverage ratio

EBIT = Earning before interest and taxes

c. Core Capital Adequacy Ratio (CCAR)

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

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

Where

CCAR = Core Capital adequacy Ratio

Core Capital = Paid-up Capital + Share Premium + non-redeemable preference share + general reserve + cumulative profit

d. Supplementary Capital Adequacy Ratio (SCAR)

Supplementary capital adequacy ratio is the extraction of numerical relationship between supplementary capital and total risk adjusted assets further more, it seems the absolute contribution of supplementary capital adequacy of the bank and determined by using the given model:

$$SCAR = \frac{Supplementary\ Capital}{Total\ Risk\ Adjusted\ Assets} \times 100$$

Where,

SCAR = Supplementary Capital Adequacy Ratio

Supplementary Capital = Loan Loss Provision + Exchange Equalization Reserve + Hybrid Capital Instrument + Unsecured Sub-Ordinate Form Debt + Interest Rate Fluctuation Fund + Other Free Reserves

e. Capital Adequacy Ratio (CAR)

Capital adequacy ratio is the relationship between the total capital fund and total risk adjusted assets it measures the adequacy of capital and financial soundness of a bank. Capital adequacy ratio is used to measure the adequacy of capital in the bank. It is worked out by using the following model.

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

Where

CAR = Capital Adequacy Ratio

Total Capital Fund = Core Capital + Supplementary Capital

Total Risk Adjusted = On-balance Sheet Risk Adjusted Assets + Off-balance Sheet Risk Adjusted Assets

f. Total Expenses to Total Income Ratio

The total expenses to total incomes ratio is the expression of the numerical relationship between total expenses in total incomes of company. It measures the proportion of total expenses in total revenues indicates that a firm is operating efficiency. The increasing ratio of expenses to total revenues well

negatively affects profitability of the firm. Following is the expression of total revenues ratio.

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

Where,

Total Expenses = Operating Expenses + Non Operating Expenses + Provision for Staff Bonus + Provision for Taxation

Total Incomes = Operating Incomes + Non Operating Incomes + Write Back of Provision for Possible Loss

g. Return on Equity (ROE)

The return on equity indicates the relationship between net profits after taxes to total equity capital. It is a measure of the rate of return to the firm's share Holder's investment. It approximates the net benefit that the shareholders have received from investing their capital in the financial firm (i.e. placing their funds at risk in the hope of earning a suitable profit) Higher ratio is the more favorable for the shareholder's which represents the sound management and efficient mobilization of the owner's equity.

For the purpose of the study following model is used to determine the return on equity ratio:

$$\text{ROE} = \frac{Net\ Profit\ After\ Taxes}{Total\ Equity\ Capital} \times 100$$

Where,

Total Equity Capital = Paid-up Capital + Reserves Funds and Surplus.

h. Return on Assets (ROA)

Return on Assets express the relationship between net incomes end total assets. It measures the return on all the firm's assets after interest and taxes it is primarily an indicator of managerial efficiency it indicator of management of the firm capable for converting the institution's assets in to net earnings and increasing ratio is favorable . it is calculated by using the following models:

$$\text{ROA} = \frac{\textit{Net Profit After Taxes}}{\textit{Total Assets}} \times 100$$

i. Net Interest Margin (NIM)

Net interest margin is the expression of numerical relationship between net interest income and net earning assets of a firm earning assets are loans and investment on securities made by company for generating interest or fee income. The ratio measures how large a spread between interest revenues and interest costs. Management has the pursuit of the cheapest sources of financing, for the purpose of the study following model is used to determine net interest margin:

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

Where,

Net Interest Income = Interest Income – Interest Expenses

Net Earning Assets = Investment on Security + Loan and Advance

j. Price Earning Ratio (PER)

P/E ratio, or, MPPS divided by EPS, shows how much investor's are willing to pay per rupees of reported profits. P/E ratio is higher for firms with legal high growth prospectus lower decreasing price earning ratio can reflect

inefficiencies in terms of profitability of earning and growth. It is calculated by using the following model:

$$\text{P/E Ratio} = \frac{Market\ Price\ Per\ Share}{Earning\ Per\ Share} \times 100$$

If the liquidity assets management, debt management and profitability ratios all look good, then P/E ratio will be higher and stock price well probably be as high as can be expected.

3.6.2 Statistical Tools

Besides the financial tools as mentioned above, statistical tools are also used to verify the relationship between the variables and to identify the difference between the variables of one bank to another. In which, Average, standard deviation, coefficient of variation, correction coefficient and probable error are used in this study.

a. Average

In this study a simple arithmetic average has been used to find out the average value of different financial ratio of sampled domestic commercial banks. The average is expressed as

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

Where,

$\overline{X}$ = Mean value of Arithmetic Mean

N = Number of Observations

ΣX = Sum of observations.

b. Standard Deviation

In this study standard deviation has been employed to know the dispersion of different ratio of sampled domestic commercial banks in absolute term. Standard deviation is determined in the following ways;

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

c) Karl Persons Coefficient of Correlation

Correlation Coefficient is a statistical tool to measure the relative association between two variables series; it describes how much linear co-movement exits between two variables. Karl Persons measure, known as personas correlation coefficient between two variables (series) X and Y usually denoted by r (X,Y) or simply r can be obtained as;

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

The value of correlation coefficient, r lies between -1 to +1

If r = 1 there is perfect positive relationship

r = -1 there is perfect negative relationship

r= 0 there is no correlation at all

The closer the value of, r is 1 or -1, the closer the relationship between the variables and the closer, r is to 0, the less close relationship.

d) Coefficient of Variation (CV)

The coefficient of variation is measures the relative measures of dispersion, hence capable to compare two variables independently in term of variability.

$$CV = \frac{\sigma}{\bar{X}} \times 100$$

Where,

σ = Standard deviation

$\bar{X}$ = sum of the observation

e) Probable Error (PE)

The probable error of the coefficient of correlation helps in interpreting its value. With the help of probable error, it is possible to determine the reliability of the value of the coefficient in so far as it depends on the conditions of random sampling. The probable error of the coefficient of correlation is obtained as follows:

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

Where,

r = correlation coefficient

n = number of pairs of observation

It is used in interpretation whether calculated value of r is significant or not.

If r < PE, it is insignificant. So, perhaps there is no evidence of correlation.

If r >6PE, it is significant.

In other cases nothing can be concluded.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the presentation and analysis of data. Which collect from different source, annual reports of sample banks and complied data from NRB. As stated in the basic objectives of this case study has been already highlighted in the first chapter analytical and evaluated research methodology has been implemented and an effort been contributed to analyze the comparative case study on capital structure, capital adequacy and profitability management of sampled DPBs. The major findings thereby have emanated as derived from analysis of data.

4.1 Data Presentation and Analysis

In this section, as mentioned earlier in the research methodology to obtain the objective following evaluative components are presented in the table and figure as below.

4.1.1 Financial Leverage (Debt) Management Ratio

Debt management ratio measure the extent to which firm is using debt financing and degree of safety afforded to creditors, where following analysis are made.

4.1.1.1 Analysis of Paid-up Capital

A part of issued that is actually paid by the owners of a bank is called paid-up capital. It is classified under core capital to measure the capital adequacy. Paid-up capital includes the paid-up amount of ordinary shares, bonus shares and the amount of non-redeemable preference shares. It provides an assurance to the depositors and outsiders that the bank continues to run even in the time of financial crisis and adversity. It increases the creditworthiness of banks.

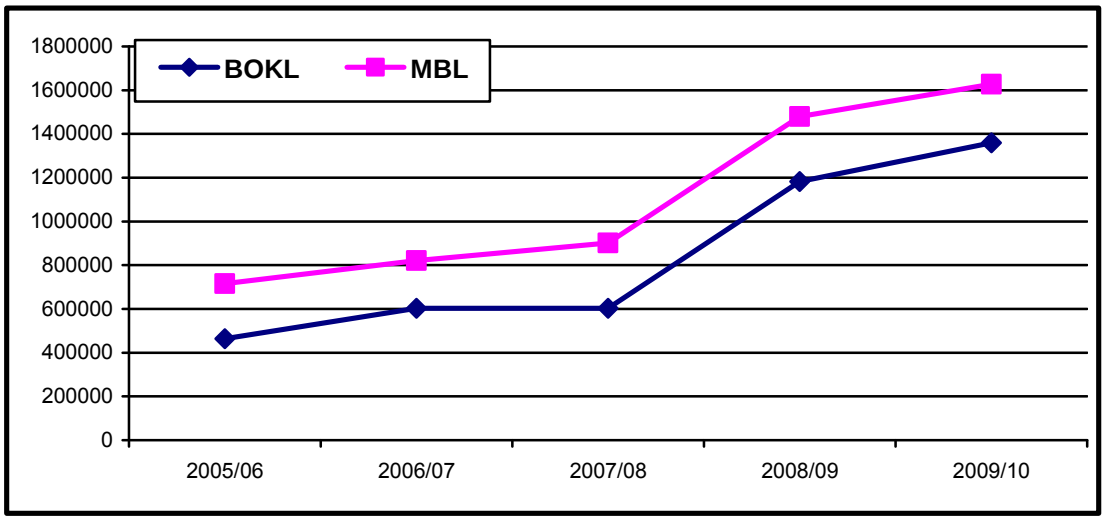
Table No. 4.1
Paid-up Capital *(In Rs. '000)*

Fiscal Year	BOKL	MBL
2005/06	463581	715000
2006/07	603141	821651
2007/08	603141	901339
2008/09	1182157	1479270
2009/10	1359481	1627196
Average	842300	1108891
S. D.	400250	414293
C. V.	47.52%	37.36%

Source: Annual Reports of Concern Banks

Above table presents the amount of paid-up capital of BOKL and MBL for the period from FY 2005/06 to 2009/10. The paid-up capital of BOKL & MBL is increasing trend every fiscal year. The average value of BOKL is Rs. 842300 thousand and MBL is Rs. 1108891 thousand respectively. The S. D. of BOKL & MBL is Rs. 400250 thousand and Rs. 414293 thousand respectively. Same the C. V. is both banks 47.52% and 37.36% respectively.

Figure No. 4.1
Paid-up Capital



Source: Table No. 4.1

4.1.1.2 Analysis of Total Debt to Equity Ratio

D/E ratio or total debt divided by total equity capital is a financial tool to evaluate the capital (financial structure) of a firm. The ratio shows the relative contribute of creditors (outsider's claims) and owners of a bank in its financing. It also reflects the relative claims of creditors and shareholders against the assets of a bank. D/E ratio has important implications from the viewpoint of creditors, owners and the firm itself. The creditors prefer low ratio because it gives the sufficient protection against losses in all the time, more specially, in the event of liquidation. Similarly, the owners prefer a high D/E ratio because the higher use of debt magnifies their earnings and protection from the dilution of control over the firm, which is the golden chance for owners to maximize their values and return by taking the advantage of leverage. Likewise, high D/E ratio is a bad news for outsiders because of the higher risk in their investment and lower margin of safety.

Higher D/E ratio indicates that the outsiders have invested more in the firm than the owners. Thus, creditors will loss more than the owners in the times of financially distress. On the other side, a low D/E ratio shows the lower contribution of outsiders to the total financing of a firm. It reflects that the firm is unable to take the advantage associated with the financial leverage.

In this regard of capital structure, D/E ratio is widely used to measure the relative proportion of total debt and equity. The amount of debt with deposit is highly greater than equity of both banks during the study period due to the greater amount of deposits under different accounts such as: current account, saving account and fixed account. As shown in the below table, the debt (with deposit) to equity ratio of BOKL is increasing from base year up to the FY 2005/06.

Table No. 4.2

Debt to Equity Capital Ratio

Banks	2005/06	2006/07	2007/08	2008/09	2009/10	Avg.	SD	CV
BOKL								
Debt. Capital with Deposit	11438595	13452545	16347047	18692197	21145338			
Debt. Capital without Deposit	953236	1063618	513309	608217	829504			
Equity Capital	839734	993275	1342073	741590	2073530			
D/E ratio (With Deposit)	1362.17	1354.36	1218	1073.28	1019.78	1205.52	157.19	13.04
D/E ratio (W/O Deposit)	113.52	107.08	88.25	84.92	40.00	66.75	39.86	59.71
MBL								
Debt. Capital with Deposit	8138739	9795665	11323514	15778819	18905281			
Debt. Capital without Deposit	245441	320214	221272	182028	369364			
Equity Capital	931091	100729	1163347	1700197	1773510			
D/E Ratio (With Deposit)	874.11	972.4	973.36	928.06	1065.98	962.78	70.57	7.33
D/E ratio (W/O Deposit)	26.36	31.78	19.02	10.71	20.83	21.74	7.94	36.51

Source: Annual Reports of Concern Banks

Above table and below figure shows the debt to equity (with deposit) of BOKL is increasing from FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 in 1362.17, 1354.36, 1218, 1073.28 and 1019.78 respectively. Average debt to equity ratio of BOKL is 1205.52 and SD and CV of BOKL is 157.19 and 13.04% respectively.

Above table and below figure shows the debt to equity (with deposit) of MBL is increasing from FY 2005/06, 2006/07, 2007/08 then decreasing in 2008/09 and again increasing 2009/10 in 874.11, 972.4, 973.36, 928.06 and 1065.98 respectively. Average debt to equity ratio of MBL is 962.78 and SD and CV of MBL is 70.57 and 7.33% respectively.

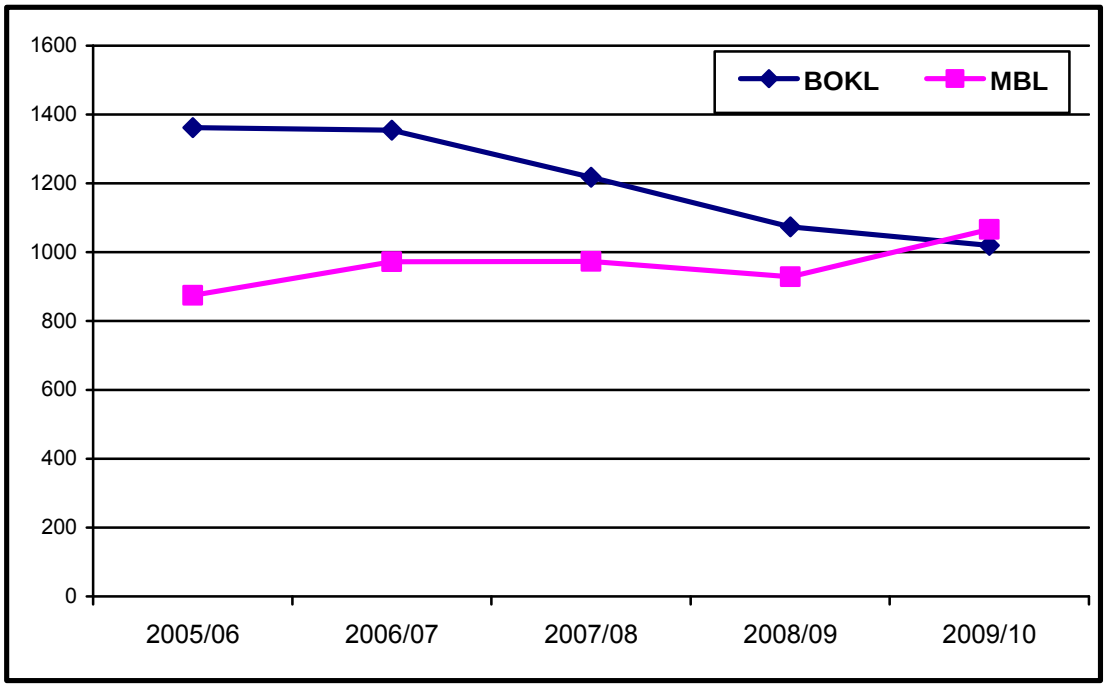
Above table and below figure shows the debt to equity (without deposit) of BOKL is decreasing and fluctuate from FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 in 113.52, 107.08, 88.25, 84.92 and 40.00 respectively.

Average debt to equity ratio of BOKL is 66.75 and SD and CV of BOKL is 39.86 and 59.71% respectively.

Above table and below figure shows the debt to equity (without deposit) of MBL is more fluctuate increasing and decreasing from FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 in 26.36, 31.78, 19.02, 10.71 and 20.83 respectively. Average debt to equity ratio of MBL is 21.74. The SD and CV of MBL is 7.94 and 36.51% respectively.

Figure No. 4.2

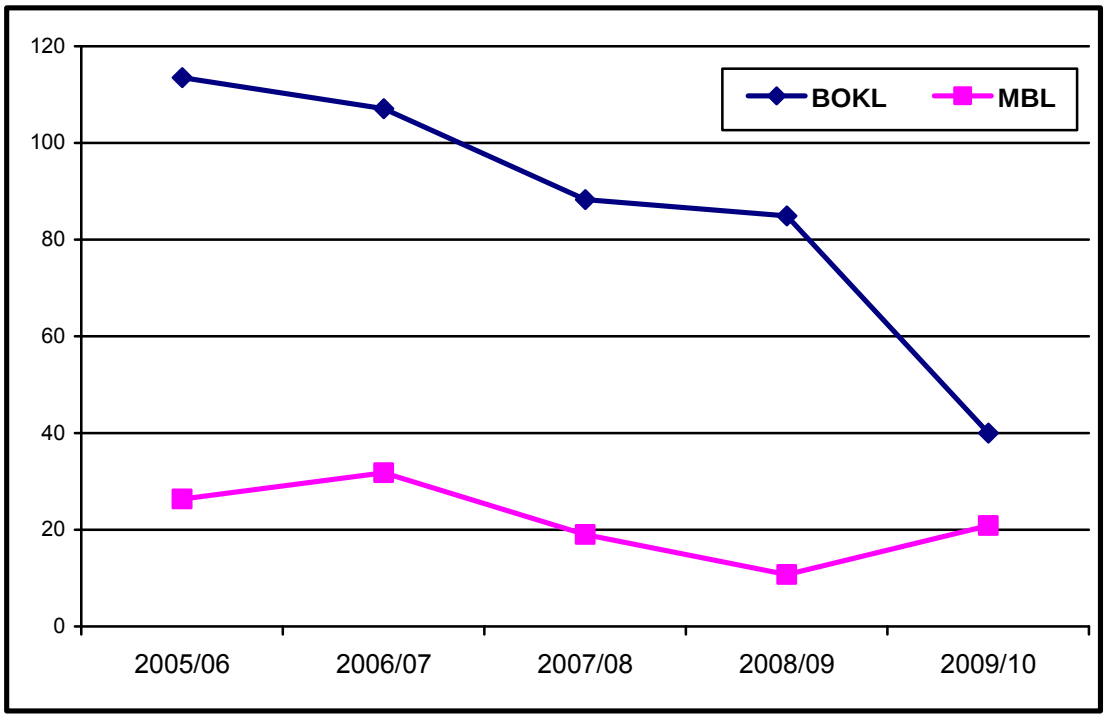
Debt to Equity Capital Ratio (with deposit)



Source: Table No. 4.2

Figure No. 4.3

Debt to Equity Capital Ratio (without deposit)



Source: Table No. 4.2

4.1.3 Analysis of Debt Servicing Capacity

Interest coverage ratio (ICR) is used to analyze the debt servicing capacity of bank is calculated dividing EBIT by interest charges are covered by the earning that are normally available for payment. Specially, the ICR of six to seven times is desired for most of the industry lines. But the generalization is not appropriate for the banking industry because of different nature of banking sectors. It is difficult to set benchmark of ICR.

However, the higher ratio is desired from the viewpoint of outsides and other. The larger ICR shows the grater ability of the firm to handle the fixed charges and more assurance for payment of interest to creditors; lower value of ICR indicates the lower debt servicing capacity. A high ratio reflects the unused debt capacity or the firm is missing the opportunity to take advantage

of financial leverage. Similarly, a low ratio is an alert signal that the firm is using excessive debt and does not have the capacity to service the debt properly.

Table No. 4.3
Interest Coverage Ratio *(In Times)*

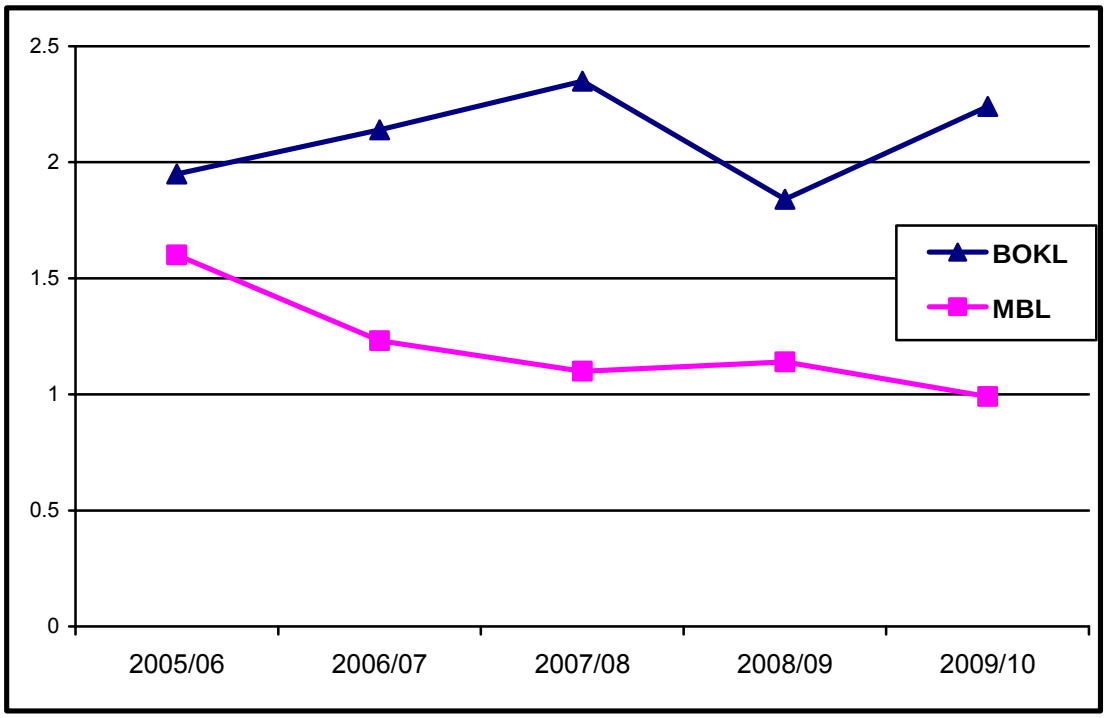
Fiscal Year	BOKL	MBL
2005/06	1.95	1.60
2006/07	2.14	1.23
2007/08	2.35	1.10
2008/09	1.84	1.14
2009/10	2.24	0.99
Average	2.1	1.21
S. D.	0.21	0.23
C. V.	9.90%	19.26%

Source: Annual Reports of Concern Banks

Above table presents the ICR of BOKL and MBL for the period from FY 2005/06 to 2009/10. The figure presented in the table reveal that the ICR of BOKL from base year to FY 2007/08 and then this ratio is going to decrease in the FY 2008/09 from 2.35 times to 1.84 times. And end of the study period again this ratio is goes to rise. It indicates that the bank has able to maintain sufficient EBIT to meet interest obligation in past three years. But afterward it seemed to be conscious to have sufficient EBIT to be able to service the debt. BOKL has an average ratio of ICR is 2.1 times and absolute measure of 0.21% and relative measure of 9.90%. Similarly, the ICR of MBL have decreasing trend over the study period managed in base year of 1.60 times to 1.10 times in FY 2007/08 and again it increase of 1.14 times in FY 2008/09. And finally again decrease up to 0.99 times in the end of the study period. An average of 1.21 times absolute measure of 0.23% and relative measure of 19.26% of the bank. The bank is seemed to be conscious to have sufficient EBIT to be able to service the debt.

Figure No. 4.4

Interest Coverage Ratio



Source: Table No. 4.3

ICR of BOKL has found in increasing trend except in FY 2008/09. But the ICR of MBL has found in decreasing trend except in FY 2008/09. By comparing the average value, SD and CV, BOKL has found satisfactory and look good due to higher average of ICR (i.e. 2.1>1.21) low SD (i..e 0.21% < 0.23%) and low CV (i..e 9.90%<19.26%) which indicate more consistency in management of ICR.

4.1.2 Capital Adequacy Ratio

Financial strength is measure by capital adequacy of B&FI's. It provides a cushion against the risk of failure, adequacy capital reduces firm's risk, to supports its risks assets in accordance with the risk-weighted capital ratio framework. NRB determines the capital adequacy ratio of all books and non-bank financial institutions in Nepal. NRB concerned with this because some

Financial Institutions do not hold enough capital and have increased capital requirement. If the firm holds more capital, they can more easily absorb potential losses and are more likely to service. Moreover it reduces the likelihood of failure. The firm with higher capital ratio is therefore assigned a higher capital adequacy rating.

4.1.2.1 Analysis of Core Capital Adequacy Ratio

CCAR or core capital divided by total risk adjusted assets, which measures the adequacy of internal sources or share holders funds to support the banking activities. It reflects the financial strength and soundness of a bank. Core capital is the primary capital, also knows as the tier I capital. It includes the paid-up capital, share premium, non-redeemable preference share, general reserves, retained earning, proposed bonus share and good will, fictitious assets deductible if any.

Higher values of the ratio above the NRB standard show the adequacy of internal sources and higher security to creditors and depositors and vice-versa. NRB has provided the minimum stander of CCAR in order to stabilize the capital and assets of bank. They are required to maintain the CCAR of 5.50% every year.

Table No. 4.4
Core Capital Adequacy Ratio *(In Percent)*

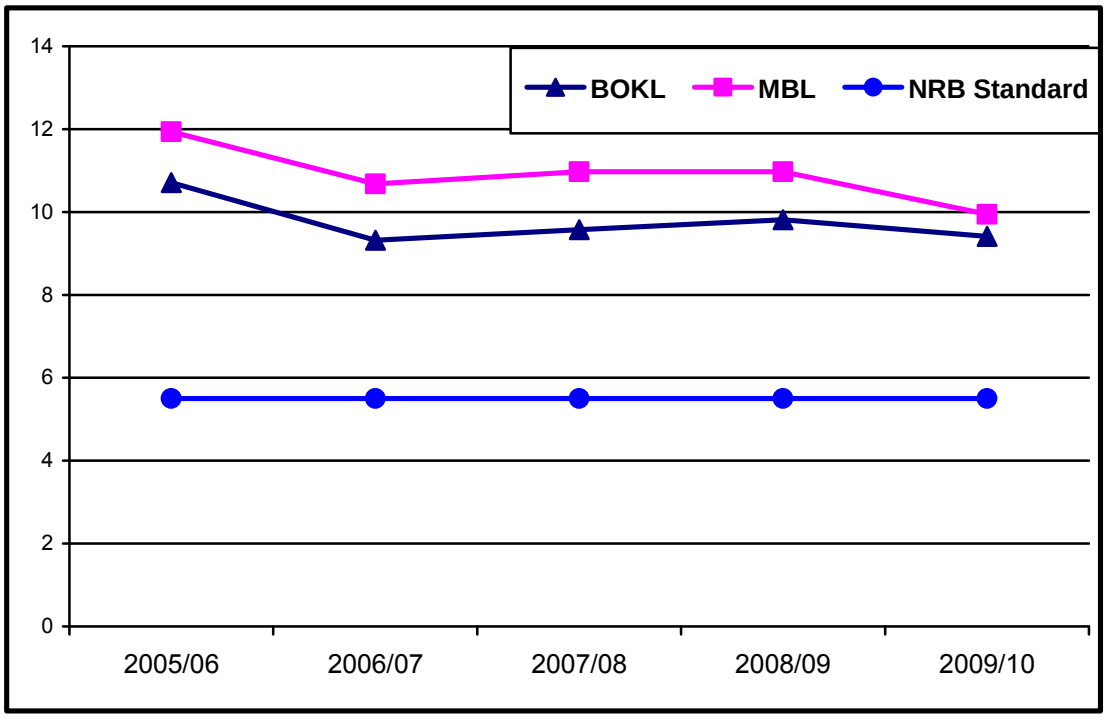
FY	CCAR of BOKL	CCAR of MBL	NRB Standard	CCAR Excess Shortage BOKL	CCAR Excess Shortage MBL
2005/06	10.71	11.94	5.50	5.21	6.44
2006/07	9.32	10.68	5.50	3.82	5.18
2007/08	9.57	10.97	5.50	4.07	5.47
2008/09	9.81	10.97	5.50	4.31	5.47
2009/10	9.41	9.94	5.50	3.91	4.44
Average	9.76	10.9			
S. D.	0.56	0.72			
C. V.	5.74%	6.59%			

Source: Annual Reports of Concern Banks

Above table exhibits that CCAR of BOKL is minimum of 9.32 in FY 2006/07 and maximum of 10.71 in FY 2005/06 with the average 9.76. The ratio are 10.71%, 9.32%, 9.57%, 9.81% and 9.41% in FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 respectively. And an absolute measure in CV of 5.74%. Similarly, CCAR of MBL is minimum 9.94 in FY 2009/10 and maximum of 11.94 in FY 2005/06 with an average ratio of 10.9%. The actual ratios are 11.94%, 10.68%, 10.97%, 10.97% and 9.94% in FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 respectively. And an absolute measure in CV of 6.59%.

Figure No. 4.5

Comparing Core Capital Adequacy Ratio with NRB Standard



Source: Table No. 4.4

The observed value of CCAR of BOKL and MBL is clearly shown with NRB standard in above figure. In which the CCAR of BLKL and MBL compares with the NRB standard. As compared to NRB standard the CCAR of BOKL and MBL are excess through the study period. Moreover, it is clearly shown that the banks have met the NRB standard in all fiscal year. It indicated that the both banks are applying adequacy amount of inter source with significant CCAR throughout the study period.

4.1.2.2 Analysis of Supplementary Capital Adequacy Ratio

Supplementary capital is the secondary capital, also known as Tire II capital. It includes loan loss provision for pass loan, asset revaluation reserve, hybrid capital instrument, unsecured subordinate term debt, exchange equalization reserve, additional loan loss provision and investment adjusted reserve and

provision for loss in investments. It indicates the contribution of supplementary capital in capital adequacy ratio of a bank.

A high value of SCAR means the higher proportion of supplementary capital in total risk adjusted assets and large portion of supplementary capital in capital adequacy ratio and vice-versa. As per the NRB unified directive for B&FI's fixed out the maximum limit of supplementary capital ratio, it can be indicate that in the capital adequacy ratio is not more than CCAR of respective banks in each year.

Below table presents the SCAR of BOKL and MBL during the study period of last five years and minimum requirement of supplementary capital standard set by NRB.

Table No. 4.5

Supplementary Capital Adequacy Ratio *(In Percent)*

Banks	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**Avg.**	**SD**	**CV**
SCAR of BOKL	3.81	3.18	2.37	1.88	1.44	2.53	0.96	37.91
SCAR of MBL	0.85	1.3	1.31	0.88	1.32	1.13	0.24	21.56
NRB Standard (≤ CCAR in terms of BOKL)	10.71	9.32	9.57	9.81	9.41			
NRB Standard (≤ CCAR in terms of MBL)	11.94	10.68	10.97	10.97	9.94			
NRB Standard (Shortage) in BOKL	6.9	6.14	7.2	7.93	7.97			
NRB Standard (Shortage) in MBL	11.09	9.38	9.66	9.09	8.62			

Source: Annual Reports of Concern Banks

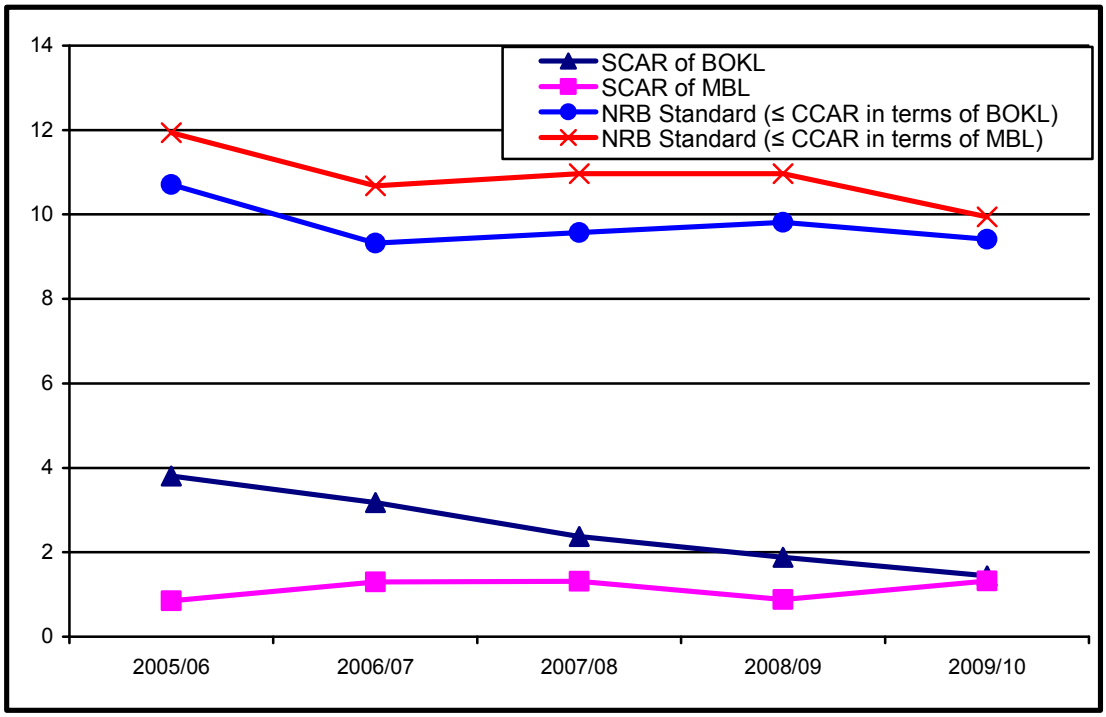
The data presented in the above table shows the SCAR of BOKL and MBL are 3.81%, 3.18%, 2.37%, 1.88%, 1.44% and 0.85%, 1.3%, 1.31%, 0.88, 1.32% in FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 respectively. The SCAR of BOKL is in decreasing trend form the base year up to final year. In the case of MBL, the SCAR is going rise up to FY 2007/08 and

decrease in FY 2008/09. Again stand to increase in the end of the study period in FY 2009/10.

The observed value of SCAR of BOKL and MBL are shown with NRB standard in below figure. In the figure, it is clearly shown that the both banks BOKL and MBL have maintained the SCAR as per the NRB standard during the study period. It indicates that the both company is running with the adequate capital in all year during the study period.

Figure No. 4.6

Comparing Supplementary Capital Adequacy Ratio with NRB Standard



Source: Table No. 4.5

In addition, BOKL has 0.96% risk on absolute measure and 37.91% in relative measure of CV. Thus lower level of CV indicates more consistency of bank operation. But, MBL has only 0.24% risk on absolute measure and 21.56% in relative measure of CV, less CV indicates consistency for the

smooth operation of the bank in terms of management of SCAR in comparison of BOKL.

4.1.2.3 Analysis of Capital Adequacy Ratio

The total capital is the sum of tier I capital and tier II capital, which represents the total invested by the shareholders, creditors and the amount collected from the various free reserves maintain by the bank. CAR means the adequacy of capital and financial soundness of a Bank. CAR of a bank above than the NRB standard indicates the sound and strong financial position, higher security to depositors and adequacy in capital. Similarly CAR below than minimum requirement of NRB shows that the lower in its internal sources, comparatively weak position financially and lower level of security to depositors. NRB has set the standard of CAR as 11% in every fiscal year from FY 2005/06 to 2009/10.

Table No. 4.6

Capital Adequacy Ratio *(In Percent)*

Banks	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**Avg.**	**SD**	**CV**
CAR of BOKL	14.52	12.62	11.93	11.68	10.85	12.32	1.38	11.23
CAR of MBL	12.79	11.97	12.29	11.84	11.25	12.03	0.57	4.73
NRB Standard	11	11	11	11	11			
CAR Excess (Shortage in BOKL)	3.52	1.62	0.93	0.68	0.15			
CAR Excess (Shortage in MBL)	1.79	0.97	1.29	0.84	0.25			

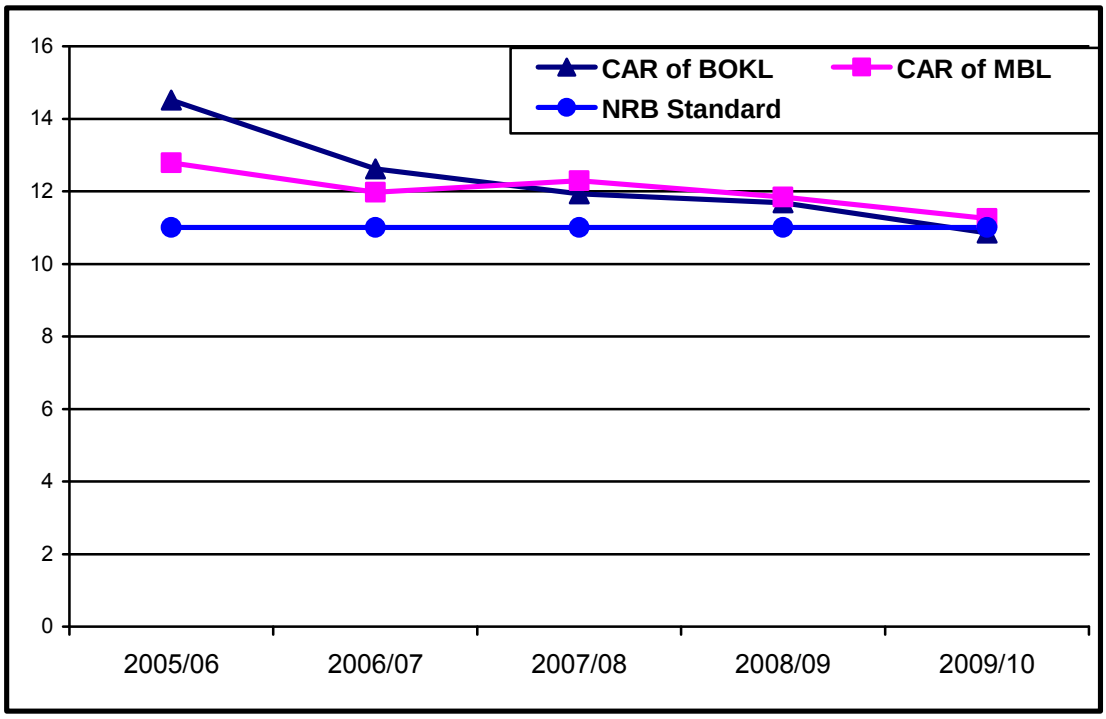
Source: Annual Reports of Concern Banks

Above table clearly shows the observed values of CAR of BOKL and MBL during the study period and minimum requirement of CAR set by NRB. In this table CAR of BOKL and MBL are disclosed as 14.52%, 12.62%, 11.93%, 11.68%, 10.85% and 12.79%, 11.97%, 12.29%, 11.84%, 11.25% in FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 respectively, which is about than the minimum requirement of CAR set by NRB standard. Thus, as

compared to the NRB standard CAR are excess in all the year during the study period.

Figure No. 4.7

Comparing Capital Adequacy Ratio with NRB Standard



Source: Table No. 4.6

In above figure shown the observed value of CAR of BOKL and MBL is above standard directed by NRB over in the all year but in FY 2009/10 BOKL has lower than NRB standard. Moreover, the figure exhibits that the banks have met NRB standard in each year. This implies that the Banks have maintained an adequate CAR. Thus, both banks have strictly followed the rules and regulation directed by NRB regarding the capital adequacy requirements. Similarly, the CAR of BOKL and MBL is decreasing order over the review year due to dispersion between the observation variable in terms of absolute measure of risk of 1.38% and being higher relative measure of CV 11.23%. This higher CV indicates less consistency of BOKL

in the management of CAR. But, the CAR of MBL is not highly fluctuation over the study period due to low level of deviation between the observed variable in terms of absolute measure of risk of 0.57% and being lower level of relative measure of CV of 4.73%. This lower level of standard deviation and CV indicates lower level of risk and more consistency in the management of CAR.

4.1.3 Profitability Ratio

Profitability ratio shows the combined effects of liquidity, assets and debt management on operating results. It measures the earnings of the company by employed return ratios. Profitability is the major yardstick of the business, where the efficiency of the management is reflected upon the volume of profit for their smooth operations. Profitability of two DPBs is analyzed on behalf of the long-term financial healthiness. Profitability depends upon earnings and expenditures. Minimization of expenditure and maximization of return is the major aspect of profitability to sustain the business smoothly.

4.1.3.1 Total Expenses to Total Income Ratio

Profitability depends upon the earning and expenditure. The ratio of total expenses to total income is used as a proxy measure of the quality of management. So the management always tries to maximizing earning and minimizing the expenses. Generally, commercial bank earned incomes from interest on loan and advance, commissions, fees and discounts and other miscellaneous income. Likewise, the major components of expenses of banks are interest on deposits, staff salary, provision for bonus, allowances, provident fund and other operating expenses like rent, water and electricity, fuel expenses and other operating expenses and other expenses as loss on sale of assets, loss on sale of investments, provision for possible losses and provision for income tax etc.

A low level of expenditure in productive activities may reflect an efficient of management. So, a low or decreasing ratio of expenses to total income indicates efficient profitability of the banks and vice-versa. Below table presents the total expenses to total incomes ratio of BOKL and MBL during the study period.

Table No. 4.7
Total Expenses to Total Income Ratio *(In Percent)*

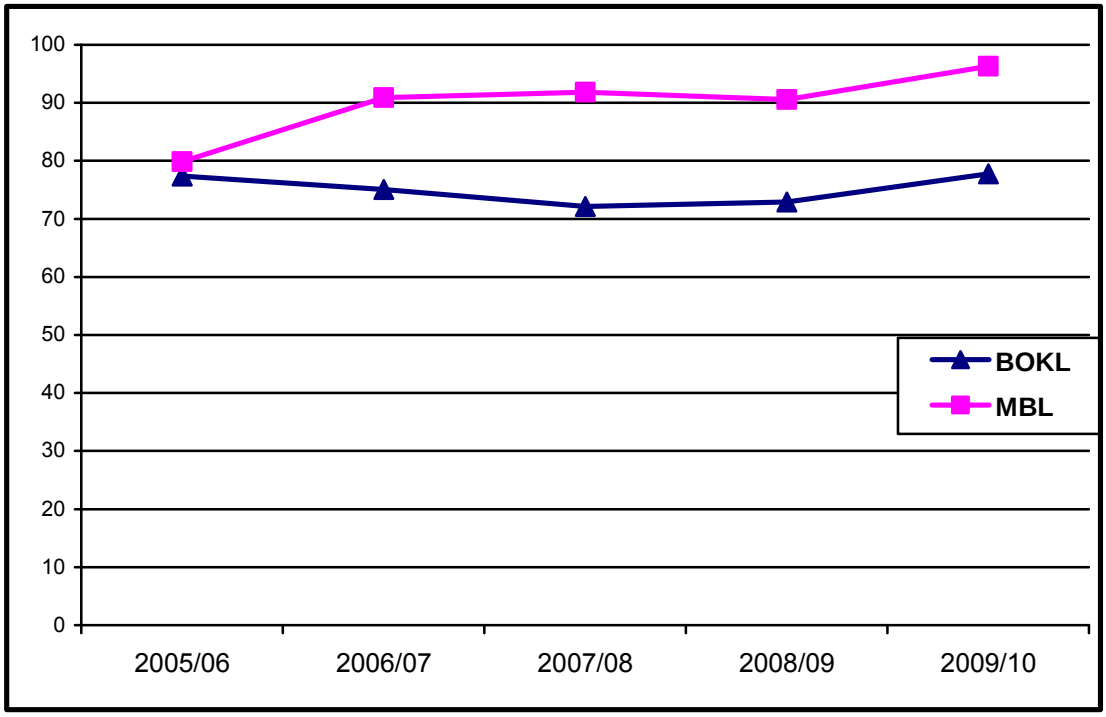
Fiscal Year	BOKL	MBL
2005/06	77.37	79.83
2006/07	75.03	90.87
2007/08	72.14	91.85
2008/09	72.91	90.57
2009/10	77.76	96.28
Average	75.04	89.87
S. D.	2.54	6.06
C. V.	3.38%	6.74%

Source: Appendix I

The data shown in the above table exhibits that the ratio of total expenses to total income of BOKL and MBL. The observed values of BOKL is in decreasing trend 77.37%, 75.03% and 72.14% in FY 2005/06 to 2007/08 respectively and slide increasing 72.91%, 77.76% in FY 2008/09 and 2009/10 respectively with average ratio of 75.04%, risk in absolute measure of 2.54% and relative measure on CV of 3.38%. Similarly, the observed values of MBL are in increasing and decreasing trend in every fiscal year. The observed value of MBL is 79.83%, 90.87% 91.85%, 90.57% and 96.28% in FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 respectively. The average ratio is 89.87%, risk in absolute measure on SD is 6.06% and relative measure on CV of 6.74%.

Figure No. 4.8

Total Expenses to Total Income Ratio



Source: Table No. 4.7

The observed value of total expenses to total income ratio of the BOKL and MBL in shown in the above figure, which depicts the values are decreasing and increasing trend during the study period. The lower level of relative measure of CV, 3.38% in BOKL indicates more consistent and uniformity. But the higher level of relative measure of CV, 6.74% in MBL indicates not consistent and not-uniformity.

4.1.3.2 Return on Equity (ROE)

ROE is one of the profitability ratio that the relationship between the net income and total equity capita. It measures how efficiently the owners are doing on their investment. So, this ratio reveals how efficiently the owner's funds have been utilized by the bank and judge weather the bank has earned a satisfactory return for its equity shareholders or not. Higher ratio indicates

the more efficiency of management on using shareholders fund and firm's ability of generating profit per rupee of their funds. Below table presents the ROE of BOKL and MBL for the period between FY 2005/06 to 2009/10.

Table No. 4.8
Return on Equity Ratio *(In Percent)*

Fiscal Year	ROE of BOKL	ROE of MBL
2005/06	24.11	14.39
2006/07	26.42	7.62
2007/08	26.93	- 26.10
2008/09	26.51	7.25
2009/10	24.56	4.13
Average	25.71	1.46
S. D.	1.27	15.85
C. V.	4.96%	1087.35%

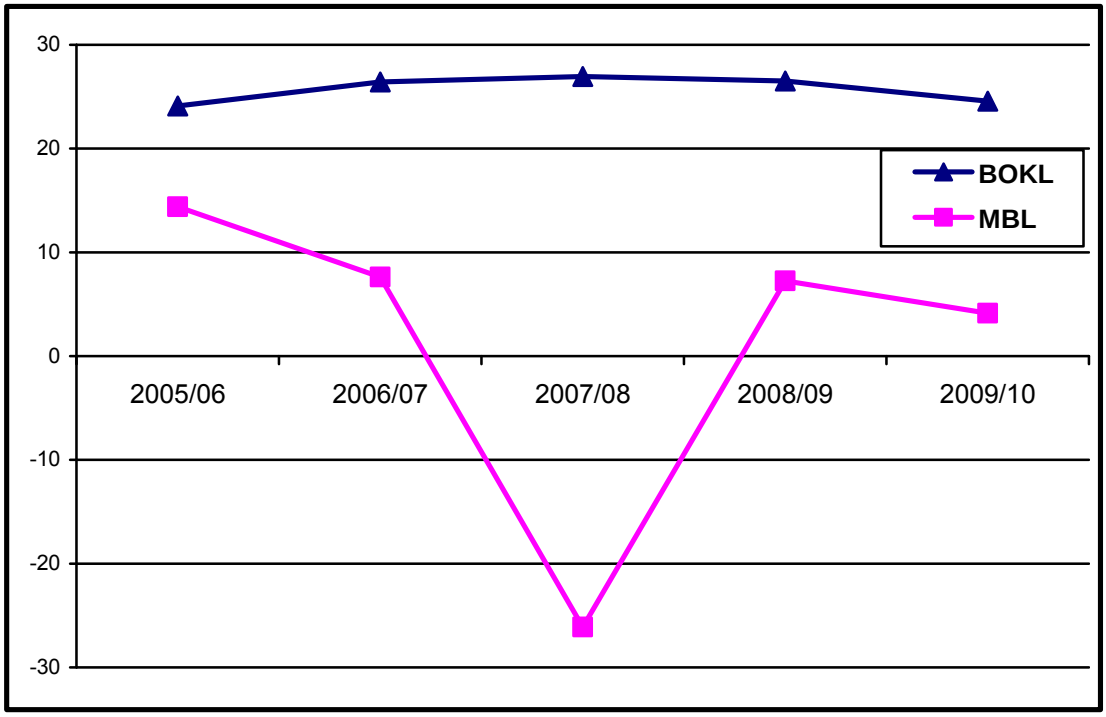
Source: Appendix I

The table presented in the reveals that the ROE of BOKL has increased for first three years and has decreased in the fourth and final year of the study period. The highest ratio is 26.93% in FY 2007/08 and the lowest ratio of 24.11% in FY 2005/06. The average ratio of BOKL is 25.71%, absolute measure on SD is 1.27% and relative measure on CV is 4.96%.

Similarly, ROE of MBL has been fluctuate trend but it is negative in FY 2007/08 due to higher preliminary expenses. The minimum ROE is negative -26.10% in FY 2007/08 and maximum of 14.39% in FY 2005/06. The average ratio of MBL is 1.46%, absolute measure on SD is 15.85% and relative measure on CV is 1087.35%. On the basis of central tendency, ROE of BOKL is preferable.

Figure No. 4.9

Return on Equity Ratio



Source: Table No. 4.8

Above figure shows the observed value of ROE of BOKL and MBL during the study period. It reflects the ROE of BOKL is moving upwards in comparison of MBL. But the ROE is not favorable and not consistency of MBL with comparing to BOKL due to higher level of risk in terms of absolute and relative measure and lower level of average return, lower level of absolute and relative risk. It depicts the more consistency on the observed ratios, which revels that the BOKL has more efficiency to manage shareholders fund to generate more profit that MBL. On the basis of CV, it can also be concluded that the ratio of MBL is highly spread and less consistency in terms of ROE due to increase in shareholder's equity but the profit of the banks has not increased in the same ratio as the equity has increased.

4.1.3.3 Return on Assets (ROA)

Return measures the profitability of banks that explains the return on all financial resources invested in the banks assets are satisfactory or not. ROA is a useful measure of how well a manager is doing the job because it indicates how well banks assets are being used to generate profit. The ratio explains net income for each unit of assets, indicates overall effectiveness of management in generating profits with its available assets. From the view of judging operational efficiency, the rate of return on total assets is more useful measure.

The higher ratio indicates the higher efficiency in utilizing its overall resources and vice-versa. The bank has to earn satisfactory return on assets for its survival. Below table exhibits the ROA of BOKL and MBL for the period between FY 2005/06 to 2009/10.

Table No. 4.9
Return on Assets Ratio *(In Percent)*

Fiscal Year	ROA of BOKL	ROA of MBL
2005/06	1.65	1.48
2006/07	1.80	0.71
2007/08	2.04	-2.43
2008/09	2.25	0.70
2009/10	2.18	0.35
Average	1.98	0.16
S. D.	0.25	1.51
C. V.	12.79%	930.07%

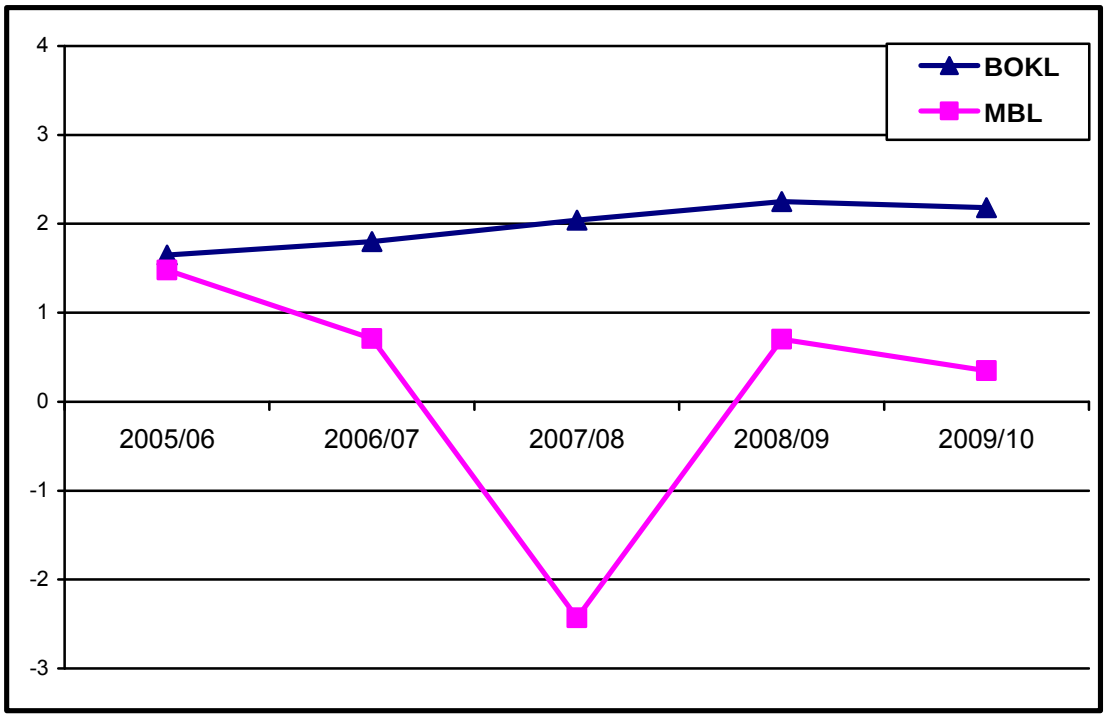
Source: Appendix I

Above table shows the ROA of BOKL has increasing trend in FY 2005/06 to 2008/09 and then decreasing in FY 2009/10 with the average return of 1.98%, absolute measure on SD of 0.25% and relative measure on CV of 12.79% indicates more efficiency and consistency on the ratio of BOKL.

Similarly, the ratio of MBL has also decreasing trend. The minimum ratio is -2.43% in FY 2007/08 and maximum ratio is 1.48% in FY 2005/06. The reason of this fluctuation in the ratio is due to appearing negative NPAT in FY 2007/08 and increasing in invested amount of assets but the net profit of the bank has not increased in the same ratio as the total assets has increased. Moreover, an average return ratio of 0.16% absolute measure on SD of 1.51% and relative measure on CV of 930.07%, which is very high, it indicates less consistency on the ratio with comparing to BOKL.

Figure No. 4.10

Return on Assets Ratio



Source: Table No. 4.9

Comparatively, BOKL has higher average return on Total Assets Ratio than MBL, which is shown the BOKL has been able to utilize its resources in most profitable sectors than MBL. So, the MBL is required to increase the rate of return on the total assets by making investment in higher return sector. On the basis of CV ratio of BOKL seems to be more consistent than MBL because of lower CV of BOKL than MBL (i.e. 12.79%<930.07%).

4.1.3.4 Net Interest Margin (NIM)

The difference between interest income and interest expenses is called net interest income. And, net-earning assets are the total sum of investment of government securities and loan & advance. Thus, the NIM is the ratio of net interest income as percentage of net earning assets. Management of assets and liabilities is affected by the spread between the interest earned on the banks assets and the interest cost on its liabilities. This ratio is examined to measure the profitability of these earning assets. A high margin reflects the better efficiency in utilizing the resource in interest generation section and vice-versa. That is, low level of earning assets, low interest expenses and high revenues will increase the NIM and vice-versa. NIM of BOKL and MBL are presented in the below table.

Table No. 4.10
Net Interest Margin *(In Percent)*

Fiscal Year	NIM of BOKL	NIM of MBL
2005/06	3.85	3.78
2006/07	3.87	3.53
2007/08	3.94	3.85
2008/09	4.50	2.82
2009/10	4.85	3.94
Average	4.20	3.58
S. D.	0.45	0.45
C. V.	10.72%	12.65%

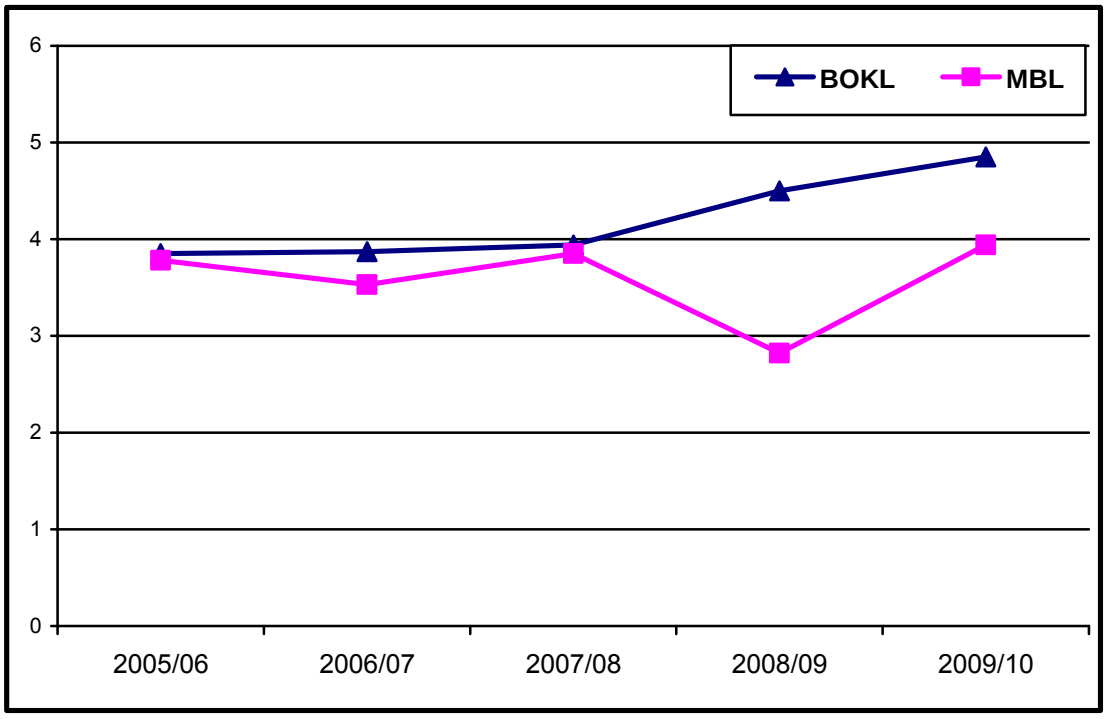
Source: Appendix I

Above data presented in table No. 4.10 exhibits the NIM of BOKL and MBL between the FY 2005/06 to 2009/10. The NIM of BOKL observed as 3.85%, 3.87%, 3.94%, 4.50% and 4.85% in FY 2005/06 to 2009/10 respectively. Similarly, The NIM of MBL observed as 3.78%, 3.53%, 3.85%, 2.82% and 3.94% in FY 2005/06 to 2009/10 respectively. The average ratio of BOKL is

4.20%, absolute measure on SD of 0.45% and relative measure on CV of 10.72%, which reflects the very low level of risk and more consistency in the NIM ratio. The average ratio of MBL is 3.58%, absolute measure on SD of 0.45% and relative measure on CV of 12.65%, which reflects the high deviation and not consistency in the term of variables of NIM ratio.

Figure No. 4.11

Net Income Margin



Source: Table No. 4.10

Figure No. 4.11 shows the observed NIM ratio of BOKL and MBL during the study period. It shows the ratio of BOKL is in increasing trend in FY 2005/06 to 2009/10. But the ratio of MBL is fluctuation due to high dispersion on the ratios, high absolute risk and relative measure. Comparatively, the average ratio of BOKL is higher than MBL. It shows the higher rate of return on NIM. Similarly, lower level of risk of 0.45% and relative measure on CV of 10.72% indicates BOKL seems more consistency in terms of these ratios during the study period. It also indicates that the increasing trend of NIM & lower level of CV with lower level of risk of

BOKL, the bank manager has done good job of assets and liability management in interest generating purpose as compared to MBL during the study period.

4.1.3.5 Price Earning Ratio (P/E Ratio)

The P/E ratio is the measurement tools of profitability on market stability basis. It can be obtained MPPS divided by EPS. It reflects, in times, the price currently paid by market for each rupee of reported EPS. It is used to evaluate the Banks performance by the investor. Higher P/E ratio indicates that the bank growth capacity of earning has been increased but the lower level of P/E ratio indicates that the earnings are not likely to be raised. The table 4.11 shows the observed the value of P/E ratio of BOKL and MBL.

Table No. 4.11
Price Earning Ratio *(In Times)*

Fiscal Year	P/E Ratio of BOKL	P/E Ratio of MBL
2005/06	19.46	17.80
2006/07	31.61	68.74
2007/08	39.21	124.19
2008/09	33.37	50.41
2009/10	19.50	56.90
Average	28.63	63.61
S. D.	8.81	38.78
C. V.	30.79%	60.96%

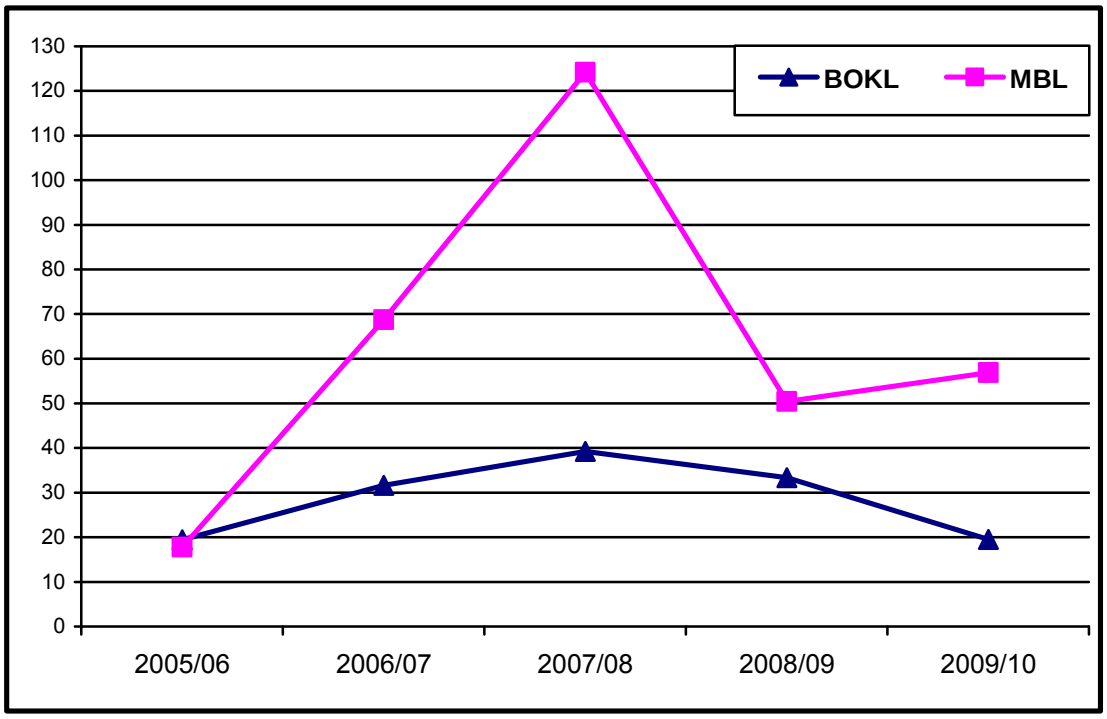
Source: Appendix I

Above table presents the P/E ratio BOKL and MBL for the period between FY 2005/06 to 2009/10. Te presented data shows the P/E ratio of BOKL and MBL are as 19.46, 31.61, 39.21, 33.37, 19.50 times and 17.80, 68.74, 124.19, 50.41, 56.90 times in FY 2005/06 to 2009/10 respectively. The maximum P/E ratio of BOKL is 39.21 times in FY 2007/08 and minimum P/E ratio is 19.46 time in FY 2005/06 with the greater level of fluctuation.

Like wise, maximum P/E ratio of MBL of 124.19 times in FY 2007/08 and minimum of 17.80 times in the starting of the review period. On average, P/E ratio of BOKL is lower than that MBL i.e. 28.63 times and 63.61 times respectively.

Figure No. 4.12

Price Earning Ratio



Source: Table No. 4.10

Above figure presents the P/E ratio of BOKL and MBL during the study period. It has been clearly shown that the P/E ratio of BOKL is in FY 2007/08 is 39.21 times which is high with comparing to the other FY. But, P/E ratio of 19.46 times and 31.61 times in FY 2005/06 and 2006/07 then in FY 2008/09 and 2009/10, P/E ratio is 33.37 times and 19.50 times respectively. It shows fluctuation of P/E ratio is high. Similarly, P/E ratio of MBL of 17.80, 68.74, 124.19, 50.41 and 56.90 times in FY 2005/06, 2006/07, 2007/08, 2008/09 and 2009/10 respectively. Which is very high fluctuation P/E ratio. Comparatively, the average P/E ratio of MBL has been

found higher than of the BOKL, which reflects that the MBL better performance for growth in earning than that of BOKL.

4.1.4 Statistical analysis

Statistical tools are also used to study comparatively of profitability management a BOKL and MBL, which are used to analyze the data to achieve the objectives and analysis of the relationship of different variable in the case of the study.

4.1.4.1 Coefficient of Correlation relation between D/E ratio and ROE

The correlation relation between ROE(Y) and D/E ratio (X), ROE being dependent on D/E ratio, of the both banks is analyzed in order to know weather increase in debt capital portion in the capital structure increases ROE or not. The following result has been obtained for BOKL and MBL.

Table No. 4.12

Coefficient of Correlation between D/E Ratio and ROE

Banks	r	r^2	PE	6PE	Relationship	Condition	Sig/Insig.
BOKL	0.05	0.0025	0.3009	1.805	Positive	r<6PE	Insignificant
MBL	-0.29	0.0841	0.276	1.657	Negative	r<6PE	Insignificant

Source: Calculate by Excel Programme

Above table presents the coefficient of correlation between D/E ratio and ROE, D/E ratio being independent on ROE of BOKL and MBL, has been found 0.05 and -0.29 respectively. There is positive relationship of BOKL, it implies that increase in D/E ratio, increases the ROE. Similarly, there is negative relationship of MBL, it is implies that increase in D/E ratio, decrease in ROE. Coefficient of determination (r^2) indicates that 0.25% of variation in ROE is explained by D/E ratio of BOKL. But 8.41% of variation in ROE is explained by D/E ratio of MBL. It has been found that the value or

'r' is less that 6PE in BOKL and MBL therefore both banks the value of 'r' is insignificant. It clears that increasing level of D/E ratio decrease the ROE.

4.1.4.2 Coefficient of correlation between Debt Capital and EPS

Debt capital, components of bank capital, is a source as of short term and long term financing where as EPS is the earning per share of bank shareholders. If the earning of bank is high, then the EPS also be high. Here the relationship between debt capital(X) and EPS(Y) has been analyze by the Karl Pearson's correlation coefficient in order to find out the relationship between these specified variables. In so doing, the investigator tries to measure when increase in debt capital required to increase in EPS or not. The table 4.13 shows the relation between the specified variables of BOKL and MBL of the review period.

Table No. 4.13

Coefficient of Correlation between Debt Capital and EPS

Banks	r	r^2	PE	6PE	Relationship	Condition	Sig/Insig.
BOKL	-0.28	0.0784	0.278	1.665	Negative	r<6PE	Insignificant
MBL	-0.81	0.6561	0.103	0.618	Negative	r<6PE	Insignificant

Source: Calculate by Excel Programme

Above table shows, coefficient of correlation between debt capital and EPS of BOKL and MBL, has been found -0.28 and -0.81 respectively. This means that there is negative correlation between debt capital and EPS. It indicates that the decreasing level of debt capital and EPS. Similarly, coefficient of determinant (r^2) indicates 7.84% of the variation in EPS is explained by debt capital of BOKL and 65.61% of variation in EPS is explained by debt capital of MBL. It has been found that the value of 'r' is less that 6PE in both banks; it indicates that the value of 'r' is insignificant having negative relationship. Although, there is no significant relation between the tested variables, on the basis of coefficient of determinant (r^2)

MBL is most significant that BOKL due to higher variation of 65.61% in MBL that that of only 7.84% variation in BOKL.

4.1.4.3 Coefficient of correlation between Interest Charges and EBIT

The correlation between interest charges and EBIT is evaluated to measure the relationship of debt-servicing capacity of the bank. Here, interest charges (X) is independent variable and EBIT (Y) is dependent variable. The investigator tries to find out where increase in interest charges requires in increases in EBIT or not. The table 4.14 shows the comparable evaluative measure of correlation coefficient between BOKL and MBL during the study period.

Table No. 4.14

Coefficient of Correlation between Interest Charges and EBIT

Banks	r	r^2	PE	6PE	Relationship	Condition	Sig/Insig.
BOKL	0.97	0.9409	0.019	0.115	Positive	r>6PE	Significant
MBL	0.84	0.7056	0.087	0.519	Positive	r>6PE	Significant

Source: Calculate by Excel Programme

Above table shows, coefficient of correlation between interest charges and EBIT of BOKL and MBL, has been found 0.97 and 0.84 respectively. This means that there is positive correlation between interest charges and EBIT. It indicates that the increasing level of interest charges and EBIT. Similarly, coefficient of determinant (r^2) of BOKL indicates that 94.09% of the variation in interest charges is explained by the independent variable (EBIT) whereas 70.56% of variation in EBIT is explained by the interest charges of MBL. Likewise, it also has been found that the value of 'r' is greater than 6PE of BOKL and MBL. It indicates that there is high degree of positive correlation due to the value of 'r' is significant. Additionally, it indicates that the increasing value of interest charges increases the value of EBIT.

4.1.4.4 Coefficient of Correlation between CAR and P/E ratio

The correlation between CAR(X) and P/E ratio(Y), and P/E ratio being dependent on CAR, of the both banks is analyzed in order to know whether increases CAR in the capital adequacy management increase P/E ratio or not.

Table No. 4.15

Coefficient of Correlation between CAR and P/E ratio

Banks	r	r^2	PE	6PE	Relationship	Condition	Sig/Insig.
BOKL	-0.27	0.0729	0.281	1.681	Negative	r<6PE	Insignificant
MBL	-0.13	0.0169	0.296	1.778	Negative	r<6PE	Insignificant

Source: Calculate by Excel Programme

Above table shows, coefficient of correlation between CAR and P/E ratio of BOKL and MBL, has been found -0.27 and -0.13 respectively. This means that there is negative correlation between CAR and P/E ratio. It indicates that the decreasing level of CAR and P/E ratio. Similarly, coefficient of determinant (r^2) indicates 7.29% of the variation in CAR is explained by P/E ratio of BOKL and 1.69% of variation in P/E ratio is explained by CAR of MBL. It has been found that the value of 'r' is less that 6PE in both banks; it indicates that the value of 'r' is insignificant having negative relationship. Although, there is no significant relation between the tested variables, on the basis of coefficient of determinant (r^2) BOKL is most significant that MBL due to higher variation of 7.29% in MBL that that of only 1.69% variation in BOKL.

4.2 Major Findings of the Study

The major findings of the study on capital structure, adequacy and profitability management of DPBs in Nepal as comparative case study between BOKL and MBL are as follows;

- The paid-up capital of MBL has been increased an average rate of 28.22% per annum but that of BOKL is increase an average rate of 19.72%
- The D/E ratio of both banks is fluctuating over the study period. The debt (with deposit)to equity ratio of BOKL is quite higher than MBL in terms of average by 224.91%, in implies than the higher contribution of outsider's claim in total financing and in total assets than the owner. Comparatively, BOKL has higher ratio than MBL in each year with higher mean, lower SD and higher CV than MBL. It indicates the BOKL is more consistent and more uniformity in terms of ratio. Similarly, debt, (without deposit) to equity ratio of BOKL is quite higher than MBL in terms of average by 44.67%, it indicates that the creditors are investing more in total financing of BOKL over the review period. Higher ratio indicates the more risky to the outsider's claim of BOKL than in MBL. Lower level of SD&CV indicates that the MBL seems more consistent in comparison of BOKL in terms of debt (without deposit) to equity ratio.
- ICR of both banks is moving in the same way of raising trend over the study period except final MBL of that final year of study period BOKL has higher debt servicing capacity on average with lower level of standard deviation and lower CV indicates more consistency in terms of ICR.
- The CCAR of BOKL has maintained maximum of 10.17% in year 2005/06 and minimum of 9.32% in year 2006/07 which indicates the ratio are slightly fluctuating, similarly in the MBL has maintained maximum of 11.94% in FY 2006/06 and minimum of 9.94% in FY 2005/06, which indicates the ratio are fluctuating over the study period. Although, the CCAR is above the NRB standard than is the

- The SCAR of BOKL ranges from 1.44% in FY 2009/10 to 3.81% in FY 2005/06. But the SCAR of MBL is maximum of 1.32% in FY 2009/10 and minimum of 0.85% in FY 2005/06. This represents that the ratio is fluctuating over the study period. The SCAR is within the limit of NRB standard as prescribed by NRB, which should not be more than CCAR of the respective banks.
- The total CAR of MBL and BOKL slightly changes over the review period. Therefore, the BOKL has lower level of risks in terms of relative measure, indicts more consistency between the ratios. However, throughout the review period, the total CAR of both banks is above the NRB standard, indicted that the financial position of the sampled banks is sound and strong.
- The total expenses to total income of MBL is maximum in FY 2009/10 with 96.28% and minimum in FY 2005/06 with 79.83%. Similarly, the ratio of BOKL is maximum in FY 2009/10 with 77.76% and minimum in 2007/08 with 72.14% the lower level of relative measure in CV of BOKL (i.e. 3.38% < 6.74%) , indicates more consistency in the ratio.
- The ROE of BOKL is minimum 24.11% in FY 2005/06 and maximum of 26.93% in FY 2007/08. But, the ROE of MBL is minimum -26.10% in FY 2007/08 and maximum of 14.39% in FY 2005/06. The higher average ratio of BOKL (i.e. 25.71%> 1.46%) and lower level of relative measures on CV (i.e. 4.96%<1087.35%), indicates more consistency in the ratio of BOKL than MBL. So, the BOKL has found

- The ROA of BOKL is in increasing trend, but that of MBL is in fluctuating trend due to negative value of NPAT, -2.43% of ROA is occurred in FY 2007/08 throughout the study period, the ROA of BOKL is must preferable due to higher level of average ratio, lower level of absolute and relative measure then that of MBL. BOKL seems efficient to utilize its resources in the most profitable project as compared to MBL.
- The NIM of BOKL is in increasing trend and MBL NIM of is decreasing trend. NIM been fluctuating over the study period. Therefore BOKL seems to be more efficient in utilizing its assets in interest generating purposed in terms of lower level standard deviation and CV as compared to MBL.
- The P/E ratio of both banks has been fluctuating over the study period, the maximum of 39.21 times in FY 2007/08 and minimum of 19.46 times in FY 2005/06 of BOKL and that of 124.19 times in FY 2007/08 and 17.80 times in FY 2005/06 of MBL. In average, P/E ratio of MBL is higher than MBL but relative measure on CV is lower with BOKL represents more consistency in the ratio.
- The coefficient of correlation between D/E ratio and ROE, D/E ratio being independent on ROE of BOKL and MBL, has been found 0.05 and -0.29 respectively. There is positive relationship of BOKL, it implies that increase in D/E ratio, increases the ROE. Similarly, there is negative relationship of MBL, it is implies that increase in D/E ratio, decrease in ROE.

- The coefficient of correlation between debt capital and EPS of BOKL and MBL, has been found -0.28 and -0.81 respectively. This means that there is negative correlation between debt capital and EPS. It indicates that the decreasing level of debt capital and EPS. Similarly, coefficient of determinant (r^2) indicates 7.84% of the variation in EPS is explained by debt capital of BOKL and 65.61% of variation in EPS is explained by debt capital of MBL. It has been found that the value of 'r' is less that 6PE in both banks; it indicates that the value of 'r' is insignificant having negative relationship.
- The coefficient of correlation between interest charges and EBIT of BOKL and MBL, has been found 0.97 and 0.84 respectively. This means that there is positive correlation between interest charges and EBIT. It indicates that the increasing level of interest charges and EBIT. Similarly, coefficient of determinant (r^2) of BOKL indicates that 94.09% of the variation in interest charges is explained by the independent variable (EBIT) whereas 70.56% of variation in EBIT is explained by the interest charges of MBL.
- Coefficient of correlation between CAR and P/E ratio of BOKL and MBL, has been found -0.27 and -0.13 respectively. This means that there is negative correlation between CAR and P/E ratio. It indicates that the decreasing level of CAR and P/E ratio. Similarly, coefficient of determinant (r^2) indicates 7.29% of the variation in P/E is explained by CAR ratio of BOKL and 1.69% of variation in P/E ratio is explained by CAR of MBL. It has been found that the value of 'r' is less that 6PE in both banks; it indicates that the value of 'r' is insignificant having negative relationship.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

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

5.1 Summary

The study has been conducted with the objective to analyze capital structure, capital adequacy and profitability management of DPBs in Nepal; as a comparative case study between BOKL and MBL over the five years study period from FY 2005/06 to FY 2009/10 following a descriptive and analytical research design. BOKL and MBL is drawn as a study unit with applying convenience sampling method out 21 DPBs in Nepal, annual report & financial statement of the respective banks and their websites are used as major sources of data. In this case study, various financial & statistical tools have been used to get the meaningful result and to meet the research objectives. The main objective of the study is to examine the core capital adequacy, supplementary capital adequacy & total capital adequacy as well as D/E ratio, debt servicing capacity, to evaluate the profitability position and to provide suggestion and recommendation for their improvement. The study has analyzed capital structure, capital adequacy and profitability position of two well - known banks viz. BOKL and MBL during the five years period from FY 2005/06 to FY 2009/10. Various materials are received from journals, articles, dissertations, published books to clear the research work. The conceptual reviews are concept of commercial banks, commercial banking in Nepal; evolution and present scenario, functions of commercial

bank, bank capital management. NRB directives related to capital adequacy, concept of capital structure & profitability and their theories .Besides these, review of Nepalese journals/articles and reviews of unpublished master's dissertation are carried out carried out under research review.

The study is completed based on the secondary data and carried over two banks viz BOKL and MBL out of 21 DPBs in Nepal. The research methodology is followed to achieve the objective of the study, which relates with research design, nature & source of data, population and sample, data processing and method of analysis. Financial tools (ratio analysis) and statistical tools (average, standard deviation, coefficient of variation, coefficient of determinant, probable error) have been used according to requirement to achieve the objectives.

The analysis has been made to compare the banks ratio with NRB standard and paid - up capital of MBL has been increased an average rate of 28.22% per annum but that of BOKL is increased an average ratio of 19.72% except in final year of MBL. The D/E ratio of both banks is fluctuating but ICR of them are increasing trend. The core capital adequacy ratio an total capital adequacy ratio of both banks are above the NRB standard, which shows the protection and security to creditors and depositors as well as financial soundness of the bank. The supplementary capital adequacy ratio of both banks is within the limit as per NRB standard over the review period. So, the banks are running with the limit as per NRB standard over the reviews period. So, the banks are running with adequate capital with sound and strong financial position.

5.2 Conclusions

Based on the finding, following conclusion have been run by analyzing the capital structure capital adequacy and profitability management of DPBs in Nepal. (i.e. on the comparative case study between BOKL and MBL);

- The increasing trend of paid-up capital as explained by the linear trend analysis shows that the paid-up capital for MBL & BOKL is increasing which indicates that the banks are trying to abide the NRB regulation in regarded of paid- up capital.
- The analyze debt (with deposit) to equity ratio is fluctuating of the both banks over the study period; it reveals that the total debt and equity capital is each year. It is unstable, indicts that the banks are not followed stable debt capacity. Debt (with deposit) to equity ratio of MBL seems more favorable due to lower risk in their investment and higher margin of safety.
- The increasing ICR of the both banks indicate that the earning stream and interest expenses are consists over the study period. Comparatively, BOKL is even more consistent in terms of lower level of CV.
- CCR of both banks is above the NRB standard over the review period. It reveals that the bank have adequately maintained its internal sources and indicates financially sound and strong, strictly followed by NRB standard.
- SCAR of both banks is with in the NRB norms during the review period. It indicates that the banks are running with the adequate capital over the study period and has strictly followed by NRB standard.
- Similarly, CAR reveals that the both banks are running with the adequacy capital and the capital fund of the banks is sound and sufficient to meet the banking operation as per the NRB standard. This finding also concludes that NRB seems successful to regulate and monitor the capital of the banks. In addition, it implies that the banks have held the adequate capital to support their risk-adjusted assets.
- The total expenses to total income rate decreasing trend of both banks which indicates management efficiency is improving. In terms of relative measure on CV indicates more consistency of BOKL in terms of ratio.

- The ROE of BOKL is in increasing trend of both banks. It indicates that the banks have earned satisfactory return for its equity shareholders.
- The ROA of BOKL is increasing trend depicts that the net income for each unit of asset of bank is increasing. It shows the ability of management to utilize the banks assets to generate profits is increasing than MBL.
- NIM of banks is fluctuating. The BOKL seems to be more efficient in utilizing asset in interest generating propose in terms of higher average, lower CV and lower standard deviation as compared to MBL.
- The P/E ratio is fluctuating of the both banks over the review period but lower relative measure on CV of BOKL indicates more consistency in the P/E ratio than the MBL.
- After observing the correlation coefficient of determinant and comparing the value of 'r' with six times of P.E., its has been found that the correlation between D/E ratio and ROE and the correlation between debt capital and EPS are found more significant in BOKL but the correlation between interest charges & EBIT and the correlation between CAR & EPS is found significant in MBL.

5.3 Recommendations

The following recommendations are made based on the conclusions as suggestion to overcome the weaknesses as regard to the comparative case study between two DPBs in Nepal viz. BOKL and MBL.

- **Improve Capital Structure by Increasing Equity Based Capital**

The increasing pattern of paid-up capital is an indicator of increasing internal source in the bank. The capital structure i.e. debt (with deposit) to equity ratio) of both banks is highly leveraged. The proportion of dept and equity capital should be the effect of tax advantage and financial distress. Since the

D/E ratio of both banks has been found extremely higher, the capital structure position is a aggressive due to grater public deposit. Thus, both banks are required to maintain improve capital structure by increasing equity based i.e. either issuing more capital, or expanding general reserve and retained more earnings. With this improve capital structure of the banks; it will compromise among the conflicting factors of cost and bank's risk. Higher level of D/E ratio indicates higher contributions towards the total capital structure of the outsider's claims than the owner's. It creates bad impact to the outsiders. So, make it uniformity by both banks.

- **Maintain stable CAR of BOKL and MBL**

CAR of the both banks is sufficient as per the NRB standard but the ratio is changing during the study period. So, the recommendation is provided to maintain stable CAR of BOKL and MBL.

- **Minimize the Expenses Ratio**

The total expenses to total income ratio of both banks are decreasing over the review period. So, it is recommended to the management of the both banks to show reduce the ratio. Which may positively affect the banks profitability?

- **Improve the ICR efficiently**

The low level ICR is an indicator of poor debt servicing capacity in both banks so, the higher ratio is favorable. It is recommended to improve the ICR efficiently. It is necessary to sustain the business in long run.

- **Maximize Shareholder's Wealth**

The both banks are recommended to increasing their ROE and ROA ratio through full utilization of fund to maximize shareholder's wealth.

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Appendix I

(a) Calculation of Different Ratios of BOKL

Particular	2005/06	2006/07	2007/08	2008/09	2009/10
Total Expenses	692135	788612	936256	1242683	1781096
Total Income	894576	1050999	1297755	1704416	2290359
Total Expenses to Total Income Ratio (%)	77.37%	75.03%	72.14%	72.91%	77.76%
Operating Profit (EBIT)	599608	687858	928196	1197897	1590065
Interest Charge	308156	339181	417543	563113	902928
Interest Coverage Ratio (%)	1.95	2.03	2.22	2.12	1.66
Net Profit (Loss) or NPAT	202441	262387	361499	461733	509263
Total Equity Capital	839734	993275	1342073	1741590	2073530
Return on Equity (ROE) (%)	24.11	26.42	26.93	26.51	24.56
Net Profit (Loss) or NPAT	202441	262387	361499	461733	509263
Total Assets	12278329	14581395	17721925	20496005	23396192
Return on Assets (ROA((%)	1.65%	1.80	2.04	2.25	2.18
Net Interest Income	409965	479823	616614	784642	967919
Investment on govt. Security	3374712	2992434	3204068	2783599	3269205
Loan and Advance	7259083	9399328	12462638	14647297	16664931
Net Earning Assets	10633795	12391762	15666706	17430896	19934136
Net Interest Margin (NIM) %	3.85	3.87	3.94	4.50	4.85
Share Capital (Paid-up)	463581	603141	603141	1182157	1359481
Per Value of Share	100	100	100	100	100
No. of Share Out Standings	4635.81	6031.41	6031.41	11821.57	13594.81
NPAT	202441	262387	361499	461733	509263
EPS (In Rs.)	43.67	43.50	59.50	39.94	37.46
MPPS (In Rs.)	850	1375	2350	1825	840
Price Earning Ratio (In Times)	19.46	3.61	39.21	33.37	19.50

(a) Calculation of Different Ratios of MBL

Particular	2005/06	2006/07	2007/08	2008/09	2009/10
Total Expenses	530220	764392	958363	1183456	1896306
Total Income	664217	841190	1043379	1306705	1969610
Total Expenses to Total Income Ratio (%)	79.83	90.87	91.85	90.57	96.28
Operating Profit (EBIT)	462342	480132	43068	646041	1120846
Interest Charge	288662	397722	407919	580036	1144808
Interest Coverage Ratio (%)	1.60	1.21	0.16	1.11	0.98
Net Profit (Loss) or NPAT	133997	76798	(303662)	123250	73305
Total Equity Capital	931091	1007292	1163347	1700197	1773510
Return on Equity (ROE) (%)	14.39	7.62	-26.10	7.25	4.13
Net Profit (Loss) or NPAT	133997	76798	(303662)	123250	73305
Total Assets	9069830	1081033	12498548	17490782	20678791
Return on Assets (ROA((%)	1.48	0.71	-2.43	0.70	0.35
Net Interest Income	274700	296761	388678	461437	543810
Investment on govt. Security	1190830	1278469	1443551	2096792	1246159
Loan and Advance	6068427	7129892	8642323	14289793	12516012
Net Earning Assets	7259257	8408361	10085874	16386585	13792171
Net Interest Margin (NIM) %	3.78	3.53	3.85	2.82	3.94
Share Capital (Paid-up)	715000	821651	901339	1479269	1637196
Per Value of Share	100	100	100	100	100
No. of Share Out Standings	7150	8216.51	9013.39	14792.69	16271.96
NPAT	133997	76798	(303662)	123250	73305
EPS (In Rs.)	18.74	9.02	10.35	8.33	4.96
MPPS (In Rs.)	320	620	1285	420	282
Price Earning Ratio (In Times)	17.80	68.74	124.19	50.41	56.90

Appendix II (a)

Coefficient of Correlation between D/E Ratio and ROE of BOKL

Debt. Equity			1362.17	1354.36	1218	1073.28	1019.78
ROE			24.11	26.42	26.93	26.51	24.56
Values	**r**	**r^2**	**PE**	**6PE**	**Relationship**	**Condition**	**Sig/Insig.**
	0.05	0.0025	0.3009	1.805	Positive	r<6PE	Insignificant

Coefficient of Correlation between D/E Ratio and ROE of MBL

Debt. Equity			874.11	972.4	973.36	928.06	1065.98
ROE			14.39	7.62	-26.1	7.25	4.13
Values	**r**	**r^2**	**PE**	**6PE**	**Relationship**	**Condition**	**Sig/Insig.**
	-0.29	0.0841	0.276	1.657	Negative	r<6PE	Insignificant

Appendix II (b)

Coefficient of Correlation between Debt Capital and EPS of BOKL

Debt. Capital			11438595	13452545	16347047	18692197	21145338
EPS			43.67	43.5	59.94	39.06	37.46
Values	**r**	**r^2**	**PE**	**6PE**	**Relationship**	**Condition**	**Sig/Insig.**
	-0.28	0.0784	0.278	1.665	Negative	r<6PE	Insignificant

Coefficient of Correlation between Debt Capital and EPS of MBL

Debt. Capital			8138739	9795665	11323514	15778819	18905281
EPS			18.74	9.02	10.35	8.33	4.96
Values	**r**	**r^2**	**PE**	**6PE**	**Relationship**	**Condition**	**Sig/Insig.**
	-0.81	0.6561	0.103	0.618	Negative	r<6PE	Insignificant

Appendix II (c)

Coefficient of Correlation between Interest Charges and EBIT of BOKL

Interest Charges			308156	339181	417543	563113	902928
EBIT			599608	687858	928196	1197897	1590065
Values	**r**	**r^2**	**PE**	**6PE**	**Relationship**	**Condition**	**Sig/Insig.**
	0.97	0.9409	0.019	0.115	Positive	r>6PE	Significant

Coefficient of Correlation between Interest Charges and EBIT of MBL

Interest Charges			288662	397722	407919	580036	1144808
EBIT			462342	480132	43068	646041	1120846
Values	**r**	**r^2**	**PE**	**6PE**	**Relationship**	**Condition**	**Sig/Insig.**
	0.84	0.7056	0.087	0.519	Positive	r>6PE	Significant

Appendix II (d)

Coefficient of Correlation between CAR and P/E Ratio of BOKL

CAR			14.52	12.62	11.93	11.68	10.85
PE Ratio			19.46	3.61	39.21	33.37	19.5
Values	**r**	**r^2**	**PE**	**6PE**	**Relationship**	**Condition**	**Sig/Insig.**
	-0.27	0.0729	0.281	1.681	Negative	r<6PE	Insignificant

Coefficient of Correlation between CAR and P/E Ratio of MBL

CAR			12.79	11.97	12.29	11.84	11.25
PE Ratio			17.8	68.74	124.19	50.41	56.9
Values	**r**	**r^2**	**PE**	**6PE**	**Relationship**	**Condition**	**Sig/Insig.**
	-0.13	0.0169	0.296	1.778	Negative	r<6PE	Insignificant