

**FINANCIAL PERFORMANCE ANALYSIS OF CITY  
DEVELOPMENT BANK LTD. IN THE FRAME WORK OF  
CAMELS**

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## **RECOMMENDATION**

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**Master of Business Studies (M.B.S.)**

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Roshana Giri

## TABLE OF CONTENTS

<i>ACKNOWLEDGEMENTS</i>	<b>Page</b>
<b>Chapter I: INRODUCTION</b>	<b>1-7</b>
1.1 Background of the Study	1
1.2 Statement of the Problem	4
1.3 Objectives of the Study	5
1.4 Significance of the study	5
1.5 Limitations of the Study	6
1.6 Organization of the Study	6
<b>Chapter II: REVIEW OF LITERATURE</b>	<b>8-41</b>
2.1 Conceptual Review	8
2.2 Research Review	30
2.3 Research Gap	41
<b>Chapter III: RESEARCH METHODOLOGY</b>	<b>42-53</b>
3.1 Research Design	42
3.2 Population and Sample	42
3.3 Nature and Source of Data	43
3.4 Data Collection Procedure	43
3.5 Data processing and Analysis	43
3.6 Limitation of the Methodology	53
<b>Chapter IV: PRESENTATION AND ANALYSIS OF DATA</b>	<b>54-83</b>
4.1 Data Presentation and analysis	54
4.2 Major Findings of the Study	81
<b>Chapter V: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</b>	<b>84-88</b>
5.1 Summary	84
5.2 Conclusions	86
5.3 Recommendations	87
<b><i>BIBLIOGRAPHY</i></b>	
<b><i>APPENDICES</i></b>	

## LIST OF TABLES

<b>Table</b>	<b>Title</b>	<b>Page</b>
2.1	Classification of Loan and Required Provision	22
4.1	Core Capital Adequacy Ratio	55
4.2	Supplementary Capital Adequacy Ratio	57
4.3	Capital Adequacy Ratio	59
4.4	Non-performing loan to Total loan and Advances Ratio	61
4.5	Loan Loss Ratio	62
4.6	Operating Expenses Ratio	64
4.7	Earning per employee	65
4.8	Return on Equity	67
4.9	Return on Assets	69
4.10	Profit Margin	70
4.11	Earnings per share	72
4.12	Total liquid Fund to Total Deposit Ratio	73
4.13	NRB Balance to Total Deposit Ratio	75
4.14	Cash in vault to Total Deposit Ratio	76
4.15	Gap Analysis	78

## LIST OF FIGURES

<b>Figure</b>	<b>Title</b>	<b>Page</b>
4.1	Core Capital Adequacy Ratio with NRB Standard	56
4.2	Supplementary Capital Adequacy Ratio with NRB standard	58
4.3	Capital Adequacy Ratio with NRB Standard	59
4.4	Non-Performing Loan Ratio with Industrial Average	61
4.5	Trend of Loan Loss Ratio	63
4.6	Trend of Operating Expense Ratio	65
4.7	Trend of Earning Per Employee	66
4.8	Trend of Return on Equity Ratio	68
4.9	Trend of Return on Asset Ratio	69
4.10	Trend of Profit Margin	71
4.11	Trend of Earning per share	72
4.12	Liquid Funds to Total Deposits Ratio with Industrial Average	74
4.13	NRB Balance to Total Deposit Ratio with NRB Standard	75
4.14	Cash in vault to Total Deposit Ratio with Industrial Average	77

## ABBREVIATIONS/ACRONYMS

ALLL	- Allowance for Loan and Lease Losses
BAFIO	- Banks and Financial Institutions Ordinance
BCBS	- Basel Committee of Banking Supervision
BIS	- Bank for International Settlement
BOD	- Board of Directors
B.S.	- Bikram Sambat
CAR	- Capital Adequacy Ratio
CCAR	- Core Capital Adequacy Ratio
CDBL	- City Development Bank Limited
Diss	- Dissertation
EPS	- Earning per share
EPE	- Earning per Employee
Etc	- ET-cetera
FFIEC	- Federal Financial Institutions Examination Council
FIs	- Financial Institutions
FY	- Fiscal Year
i.e.	- That is
Ltd	- Limited
MBS	- Master of Business Studies
NPL	- Non-performing Loan
NRB	- Nepal Rastra Bank
PEARLS	- Protection, Effective financial structure, Assets quality, Rate of return and cost, Liquidity and Signs of growth
PM	- Profit Margin
ROA	- Return on Assets
ROE	- Return on Equity
RSA	- Risk Sensitivity Assets
RSL	- Risk Sensitivity Liabilities
RWA	- Risk Weighted Assets
SCAR	- Supplementary Capital Adequacy Ratio

- SD - Standard Deviation
- UFIRS - Uniform Financial Institutions Rating System
- WWW - World Wide Wave

# CHAPTER-I

## INTRODUCTION

### 1.1 Background of the Study

The role of money in an economy is very important. Proper and well-planned management of money directs, determines and enhances the health and productivity of total financial sector and the performance of financial sector affect the growth of economy. Hence money is subject to manage and banks are the managers thereof. Bank as manager collects, disburses and controls the flow of money. Banks collect the fund from public who have saving and disburse the fund to the person and organization who are in need of it. In this way, the entire infrastructure of national development, direction of economy, rate of progress and even the habit of people falls under the periphery of banking systems.

Banking system is volatile and sensitive sector of national economy which requires effective monitoring and efficient supervision. Smooth and effective regulation of banking activities is necessary for sustainable economic growth of a country. The regulatory agency should always be watchful of banking activities carried out by government and non-government financial institution (Dhungel, 2011).

National development of any country depends upon the economic development of that country and economic development is supported by financial infrastructure of that country. Banks constitute an important segment of financial infrastructure of any country. Bank came into existence mainly with the objectives of collecting idle funds and mobilizing them to productive sectors causing overall economic development which finally leads to national development of the country.

Nepal is overwhelmingly an agricultural country with more than 90 percent of the population living in the rural areas and make out their livelihood through the means of agriculture. It is estimated that 31 percent population are under absolute poverty and the share of these people are more in the rural areas. The economic development of Nepal has been limited by a variety of geopolitical and structural constraints. As such country's land locked location, limited expectable secures low economic growth, low saving, low income and infrastructure are the major factor that are inhibiting the economic development of the country.

One of the causes of pervasive poverty is the lack of economic resources for the growing population and slow rate national economic growth. The reason behind Nepal's under

developed economy's not due to lack of resources but it is due to improper utilization of resources. It needs proper plan and strategy development and for plan, huge amount of capital investment is required. Integrated and speedy development of the country is possible only when competitive banking service reaches nooks and corners of the country.

Banking industry is a large sector in the country and it is the backbone of the business. It is one of the more closely supervised industries in the world, reflecting the view that bank failures have stronger adverse effect on economic activity than other business failure. In addition, bank face many pressures today from changing regulations, intensifying competition from non bank financial service firms, the spreading internationalization of banking markets and continuing innovations in technology and automation. This has forced banks to assess their performance over time and relative to other bank. Moreover they should analyze the reasons behind any performance problems that appear and find ways to strengthen their performance in the future. Various groups of individuals are interested in evaluation bank performance; they include bank shareholders, bank management, regulatory authorities, depositors, the business community and general public (Shrestha, 2011).

Bank is a bridge between the savers and the users. In other words, it collects the scattered saving and mobilizes them into productive channels in order to maximize their wealth. Like other financial intermediaries, development banks facilitate the flow of funds from savers to borrowers in various tasks. So it is considered as a complementary to commercial bank at some extent (Wagle, 2011).

Nepalese economy has influences along with expansion of liberation and globalization the world. Nepal has acquired the membership of international monetary authorities and financial institution such as World Bank (WB) and Asian Development Bank (ADB). After the restoration of democracy, the government implemented open and liberal economic policies, which encourages the private sector on investment. Successful operations and supervision of FIs isn't so easier at its entrance in liberalized financial market, where the government of any countries highly monitors and controls the financial industries. Financial regulatory authority of any country has been monitoring and controlling financial sector with some valid indicators of financial health. Those indicators are not only facilitated of financial system of country but also international standards at global level which are directed by international institutions like WB/ADB to their member countries to return the financial sectors and conduct regular health check up of financial industries through onsite and offsite supervision (Paudel, 2011).

A bank aims at making huge profit. For this purpose they need to analyze their strength and weakness time to time. For the convenient purpose the study is concentrated in one of the development bank's financial performance analysis in the framework of 'CAMELS' which is internationally recognized banking rating system. Because banking sector plays vital role in the

overall development of an economy. Because of increased competition due to mushrooming of financial institution financial performance analysis is required or necessary to analyze the position of bank. Financial analysis is designed to determine the relative strengths and weakness of business operations. It also provides a framework for financial planning and control. Financial managers need the information provided by analysis both to evaluate the firm's past performance and to map future plans. Financial analysis concentrates on financial statement analysis, which highlights the key aspects of firm's operations. Financial statement analysis involves a study of the relationship between income statement and balance sheet accounts, how these relationships change over time and how a particular firm compare with other firms in its industry (Manandar, Dhakal, Thapa, Koirala & Basnet, 2009).

City development bank is a certified development bank as per the Bank and Financial Organization Act 2063 and Company Act 2063 form Nepal Rastra Bank as 'Kha' graded. It started its banking service from October 2007 by located in the financial hub of the iconic beauty, Pokhara city's Chipledhunga, with paid up capital of Rs.35, 000,000. This Bank is a combination of human skill and modern technologies which will provide modern facilities in a safe and sound way. The main objective of the bank is to secure the invaluable capital of the account holder or investor and provide them proper return. There are 8 members in BOD and All the decision are taken by the BOD under the rule and regulation formulated by NRB as well as Bank and financial Institution Act 2063. It has 8 branches in different district like Kaski, Tanahun and Lamjung. It collects the deposit under various account and provides loan to various sector, good interest to depositors and pays tax, it can be said that it has contribution a lot for the development and betterment of the society peoples as well as the economy of the nation (<http://www.citybanknepal.com>).

### **1.2 Statement of the Problem**

The main objective of a financial Institutions is to increase its returns for its owners which often come, however at the cost of various increased risk: Credit Risk, Liquidity Risk, Interest rate risk, Market Risk, Off-Balance sheet Risk, Foreign Risk, Country Risk, Technological Risk, Operational risk and Insolvency risk. Almost all the government banks in Nepal are running in loss but the private sector banks are earning profit. A bank's financial soundness is judged on the basis of CAMELS. It is very difficult to call them sound if appraised from CAMELS approach though they are earning profit since they may be exposed to aforesaid risks. Questions are being raised over the validity of their balance sheet and profit and loss account. Should the suspicion come true? It will prove very costly to the depositors, creditors and national economy as a whole. In view of this, it is important that financial institutions manage these risks and have appropriate policies, processes or practices in place that management follows and uses. On the other hand, the profitability position of a firm is generally known through financial statement but a major

question emerges whether these are adequate to reflect the overall performance of bank? Under this fact, the proposed study will be reasonable. In general, the study seeks to analyze the financial performance of city development bank in the framework of CAMELS. In this attempt, the study tries to find answers to the following research problems:

1. What is the condition of Capital Adequacy of City Development Bank?
2. What is the scenario of the quality of City Development Bank's assets?
3. How efficient is the bank's management?
4. What is the earning performance of the bank?
5. What is the level of liquidity position of the bank?
6. How the change in interest rate can affect bank's earnings?

### **1.3 Objective of the Study**

The basic objective of the study is to analyze the financial performance of city development bank through CAMELS framework. The specific objectives are as follows:

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

### **1.4 Significance of the Study**

Intense competition of financial institution across the country has impacted the banking sector negatively. So, from this research apart from aiming to gain knowledge, research itself adds new literature to the existing fields. The significance of this lies mainly in filling a research gap on the study of financial performance analysis of development bank with respect to city development bank ltd. This research will prove itself very useful to the management of city development bank as well as other development banks. This study will also be valuable to investors, stockholders, researchers, scholars, students, government and many other parties. This study will contribute significantly to solve the problem existing in the bank and to formulate the policy and strategies to maintain activities effectively.

### **1.5 Limitation of the Study**

This study is simply a partial study for the fulfillment of MBS degree. The limitations of this study are as follows:

- The study is mainly based on secondary data; the reliability of conclusion of the study depends upon accuracy of the secondary data.
- The study covers only five fiscal years i.e. from 2065/2066 to 2069/70.
- The study deals with only one single unit which may not be representative of all developments banks of Nepal.

### **1.6 Organization of the Study**

The whole study has been divided into five chapters.

Chapter (I): Introduction

First chapter includes six sub topics. They are background of the study, significance of the study, statement of problem, objectives of the study, limitation of the study and organization of the study.

Chapter (II): Review of literature

Second chapter deals with the review of the concept and available literature in the field of relevant study. Such as, books, journals, thesis and other related material.

Chapter (III): Research Methodology

Third chapter is presented research design, population and sample, nature and source of data, data collection procedure and data processing and analysis.

Chapter (IV): Data presentation and analysis

Fourth chapter is devoted to the presentation and analyses of data. The main work of this chapter is to analyzed position of City Development Bank by different financial ratios related to the CAMELS. Major findings of the study are also included in this chapter.

Chapter (V): Summary, Conclusion and Recommendation

Last chapter provides summary and conclusion; suggestion and recommendation for improving the future performance of sample bank have also been outlined.

Bibliography and appendixes have been presented at the end of the thesis.

## CHAPTER-II

### REVIEW OF LITERATURE

#### 2.1 Conceptual Review/framework

This sub- chapter presents the conceptual aspects of the study. It includes the concept of development bank, function of development bank, concept and objectives of financial performance analysis, types of financial performance analysis and concept of financial performance analysis in the framework of CAMELS.

##### 2.1.1 Concept of Development Bank

Development bank is composed of two words 'development' and 'bank'. On the development front these institutions are under obligation to play promotional role and to encourage new entrepreneurship. Development role is a role of catalyst. A development bank is designed to supply one or more of the essential ingredients of effective investment. It functions as an agent for promoting a balanced and viable process of economic development. The modern development banks are focused toward achieving all round economic development of under developed countries and searching an appropriate instrument through which such development can be promoted and financed.

Development Banks may be best regarded as the channel through which not only capital but also all the other ingredients of economic development flow under planned direction soon as to irrigate and fertilize the arid regions and transform them into economically developed fruitful areas (Wikipedia, 2010).

Development banks are established for the development of a special sector of the economy. Nepal Industrial Development Corporation was established in 1956 with the objective of providing medium and long-term loans for the establishment, development and modernization of private sector industries. Besides providing loans, other objectives were to participate in shares, underwrite shares and establish industries. Small Industry Development Corporation was established in 1960 to provide loans to small-scale industries and it was merged with NIDC in 1971.

After the introduction of Development Bank Act 1995, there was a rush to establish development banks, which brought many development banks and regional development banks in operation. The main objective was to improve standard of people by providing credit to poor

and small entrepreneurs. The bank and financial institution Act 2063 category's development banks into class-B category's licensed institutions (Shrestha, 2009).

Development bank collects the scattered savings and mobilizes them into productive channels in order to maximize their wealth. The collected resources are mobilized in various sectors like hire purchase, purchase of land, housing loan, leasing finance, consumption loan, and also investment in approved by NRB. Therefore, it is considered as a complementary to commercial banks. The main source of funds of these institutions beside equity is time deposit.

Development banks are allowed to collect time deposit with the maturity period of three months to five years. In terms of loans and investment they are allowed to extend loans for hire purchase, housing finance and leasing finance, overdraft, education etc. They are also allowed to invest in securities and issue guarantee. Due to the increasing demand of the customers, numbers of developing banks are increasing day by day. So, as a result 90 development banks have been established in Nepal till September 2013.

### **2.1.2 Function of Development Banks**

In the beginning, development bank's function were confined to accepting deposits and giving loans, However, their functions have now increased manifold. Banks and other financial intermediaries are special kind of middlemen. Banks are able to avoid illiquidity while borrowing short and lending long by using several business practices.

The Development banks in Nepal provide the following main banking functions:

**Accepting Deposits:** Development banks principal function are obtaining deposits from depositors and savers by offering the high degree of liquidity, less risky, high denominations and interest rates. In these days, a bank accepts different kinds of deposit accounts from its customers: saving, fixed, call deposit a/c and other deposits. The first is the 'savings' deposits on which the bank pays interest relatively at low rate to the depositors. Depositors are allowed to withdraw their money by cheque up to a limited amount during a week or a year. Businessmen keep their deposits in current accounts known as demand deposits. They can withdraw any amount available in their current account by cheque without notice. The bank does not pay interest on such accounts. A bank accepts fixed or time deposits from savers who do not need money for a stipulated period from six months to longer periods ranging up to ten year or more.

**Advance and Loan:** One of the primary functions of a development bank is to advance loans to its customers. Development banks use deposits to provide loans for the borrowers. In these days, banks may provide every type of loan that is legally permissible and for long time period. A bank lends a certain percentage of the cash lying in deposits at a higher interest rate than it

pays on such deposits. This is how it earns profits. The bank advances loans in the following ways: cash credit, term loans, overdraft and discounting bills of exchange.

**Credit Creation:** Credit creation is one of the most important functions of the development banks. When a bank advances a loan, it opens an account in the name of the customer and does not pay him in cash but allows him to draw the money by cheque according to his needs. By granting a loan, the bank creates deposits.

**Agency Services:** A bank is a type of financial intermediary; it acts as an agent of its customers while collecting and paying cheque, bills of exchange, drafts, dividends etc. It can provide brokerage services-buying and selling securities for their customers and may act as a securities dealer. Further, it pays subscriptions, insurance premium, utilities bills and other similar charges on behalf of its clients. It also performs as a trustee and executor of the property and will of its customers. Moreover, the bank acts as consultants to its clients. For these services, the bank charges a normal fee while it renders others free of charge.

**Miscellaneous Services:** Banks also act as custodian of valuable of the customer by providing locker facility where they can keep their jewelry and valuable documents. It issues various forms of credit instruments, such as cheque, draft and travelers' cheque etc. which facilitate transactions. It renders underwriting services to companies and helps in the collection of funds from the public. Lastly, it provides statistics on money market and business trends of the economy.

Financial intermediation between depositors and borrowers is crucial to the growth and stability of the economy. Economic growth depends on a large volume of savings and the effective allocation of the savings to productive and profitable uses.

### **2.1.3 Financial Performance Analysis**

Financial performance analysis is such process of knowing the financial strengths and weakness of the company by properly establishing relationships between the items and titles of balance sheet and profit and loss a/c .Ratio analysis is much powerful tool of financial analysis. Financial ratio is most frequent and widely used in practice to assess company's financial performance and condition.

Financial analysis is a process of identifying the financial strengths and weakness of firm by properly establishing relationship between the item of balance sheet and the profit and loss account (Pandey, 1999).

Financial performance analysis is the process of identifying the financial strengths and weaknesses of the firm. The focus of the financial analysis is on key figure contained in the

financial statement and the significant relationship that consist between them. It is undertaken by various interested groups of a firm and the nature of analysis differs depending on the purpose to the analyst. But management of the firm is generally interested in every aspect of the financial analysis because they have overall responsibility of maintaining efficient and effective utilization of resources and sound financial position of the firm (Khan & Jain, 1992).

The most important performance dimensions for any bank is profitability and risk .A commercial bank is simply a business corporation organized for the purpose of maximizing the value of the shareholders wealth invested in the firm at acceptable level of risk. The profit is one of the basic indicators of sound financial performance. It is usually the result of sound business management, cost control, credit risk management and general efficiency of operation (Robinson & Wrightman, 1990).

Profit is essential for a firm for its survival, growth and to maintain capital adequacy through profit retention. The objective of a maximum profit with a level of risk acceptable to the banks stockholders is not easy to achieve, as the recent upsurge in bank failures around the globe clearly suggests. Under the free economic system like USA on liberal economic systems of Nepal the interest of the nation as well as those of the individual stockholder's are supposed to be best served by vigorously seeking profit.

Although the profit is important for any business motive firm, it cannot be the role objective of an enterprise or financial institution and a financial enterprises should not be evaluated just on the ground of the profit it has earned. Neither the bank nor the community will be best served if the banker unreasonably scarifies the safety of his funds or the liquidity of his bank in an effort to increase income.

A fair evolution of bank's performance should start by evaluating whether it has been able to achieve the objectives its management and stockholders have set. The fundamental analysis in terms of financial analysis is different from market message reflected in technical analysis guided by the investors' psychology based in speculators manipulation of information. There are very different from industry and overall economic analysis (Shrestha, 2004).

A financial ratio is the relationship between two accounting figures, expressed mathematically. This types of relationship can be expressed as, i) percentage, ii) fraction and iii) proportion of numbers. Ratio helps to summarize the large quantities of financial data and to make qualitative judgment about the firm's financial performance. It also helps us to find the symptoms of problems. So the ratios in financial institutions are regarded as the best indicators of their performance.

The relationship of one item to another expressed in a simple mathematical form is known as the ratio. A company keeps fit by ensuring that among other things, its various financial

proportions are kept healthy. Its business performance can be measured by the use of ratios. Ratios must be interpreted against some standards (Kulkarni, 1981).

Ratio analysis is the process of determining and interpreting numerical relationship based on financial statement. A ratio is a yardstick that provides a measure of the relationship between two variables. This relationship can be expressed as a quotient (Kuchhal, 1980).

To make rational decisions in keeping with the objectives of the firm, the financial manager must have analytical tools. The ratio analysis is more useful tool of financial analysis (Vanhorne, 2003).

Financial statements contain wealth of information which if properly analyzed and interpreted, can provide valuable in rights into a firm's performance and position (Chandra, 1992).

Analysis of financial statement of interest to lenders, investors, security analysts, managers and others. It generally begins with the calculation of a set of financial ratios designed to reveal the relative strengths and weakness of a company as compared to other companies in the same industry, and to show whether the firm's position has been improving or deteriorating overtime (Weston & Copeland, 1992).

#### **2.1.4 Types of Financial Analysis**

It may be categorized as external or internal analysis based to whom it is intended. Internal analysis for management information and decision thereon are generally more detailed than external analysis intended for trade creditors, investors, term lending institutions and bankers supplying working capital.

The analysis may be classified as horizontal and vertical analysis. Horizontal analysis is conducted to compare the annual financial statement of the current year with that of the previous year to ascertain the comparative trends of the progress of the business, while vertical analysis is restricted to an in- depth study of the current years financial statement. It converts each element of the information into a percentage of total amounts of the statement (like profit to sales turnover) so as to establish relationship with other component of same statement.

**Trend analysis:** The comparison of ratios for the same firm over the time is called trend analysis. It is also known as the time series analysis .It indicates a firm's performance over time and reveals whether its position is improving or deteriorating relative to other companies in the industry. A trend analysis requires that a number of different ratios be calculated over years and plotted a yield a graphic representation of the company's performance. Trend analysis can

provide clues to whether the firm's financial situation is likely to improve or to deteriorate (Manandar, Dhakal, Thapa, Koirala&Basnet, 2009).

**Ratio analysis:** Ratio analysis is a widely and frequently used tool of financial analysis. It establishes the numerical relationship between the two relevant accounting figures derived from the financial statement/reports in the form of quotient, proportion or percentages and based on that, an assessment is made about the financial performance and position of an organization. The ratio to be meaningful the numbers selected must be co-related i.e. must bear a connected relationship. The one must have an influencing effect on the other. Ratio analysis establishes meaningful quantitative relations between two linked /connected item/variables of financial statements so that the strength or weakness of the business is brought out (Wagle, Dahal, Koirala&Ghimire, 2010).

**Fund flow statement:** This is the statement which explains the various sources from which funds were raised and the uses to which the funds are put. The statement indicates the changes which have taken place between two accounting periods. While the balance sheet as at a particular date presents the static picture of the sources and use of the funds, the funds flow statement captures the movement of funds over a specified period. A fund flow statement, therefore, explains the transformation or changes undergone by individual assets and liabilities of the firm from one balance sheet date to another. A projected fund flow for a future span of periods can also be prepared. This will facilitate budgetary control and capital expenditure control to be exercised in the organization.

**Break Even Analysis:** Break even analysis helps to ascertain the point in terms of sales turnover at which the firm is able to cover all its expenses out of its earnings and reaches the position of neither profit nor loss. In other words before the BEP the firm incurs loss and after the BEP the firm will show profit. BEP is the demarcating line. This is more meaningful for a newly established manufacturing business, as it takes time to develop the market for its products and build up sales. The period from the date of commencing construction/erection of the project to the date of reaching BEP sales is called the gestation period for the industry (<http://www.geocities.com>).

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

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

The CAMELS rating system is subjective benchmarks for each component are providing, but they are guidelines only and present essential foundations upon which the composite rating is based. They do not eliminate consideration of other pertinent factors by the examiner. The uniform rating system provides the ground work for necessary supervisors to be reasonably compared and helps institutions supervised by all there US supervisors to be reasonably compared and evaluated rating of a financial institution's financial condition. The ratings are assigned on a scale from 1 to 5. The CAMELS rating are commonly viewed as summary measures of the private supervisory information gathered by examiners regarding financial institution's overall financial conditions, although they also reflect available public information. In Nepal, the NRB plays the supervisory role for evaluating bank's financial conditions through rating the bank's accordance to CAMELS is still initial phase.

The most important criteria for determining the appropriateness of FIs to act as financial intermediary are its solvency, profitability and liquidity. In the respect, the vagaries of business condition are resistant to outside influences such as economic instability in their trade area. These FIs are in substantial complexity and profile and give no cause for supervisory concern.

**Composite 1:** FIs in this group are sound in every respect and generally have components rated 1 to 2. Any weaknesses are minor and can be handled is a routine manner by the board of directors and management. These FIs are the resistant to outside influences such as economic instability in their trade area. These FIs are in substantial compliance with laws and regulations. As a result, relative to the institutions size, complexity and risk profile and give no cause for supervisory concern.

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

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

**Composite 4:** FIs in this group generally exhibit unsafe and unsound practices or conditions. There are serious financial or managerial deficiencies that result in unsatisfactory performance. The problems range from severe to critically deficient. The weaknesses and problems are not

being satisfactorily addressed or resolved by the board of directors and management. FIs in this group generally are not capable of withstanding business fluctuations. There may be significant noncompliance with laws and regulations. Risk management practices are generally unacceptable relative to the institution's size, complexity and risk profile. Close supervisory attention is required, which means in most cases, formal enforcement action is necessary to address the problems.

**Composite 5:** In this group exhibit extremely unsafe and unsound practices or conditions exhibit a centrally deficient performance, often contain inadequate risk management practices relative to the institution's size, complexity and risk profile are of the greatest supervisory concern. The volume and severity of problems are beyond management's ability or willingness to control or correct. Immediate outside financial or other assistance is needed in other for the FIs to be viable. Ongoing supervisory attention is necessary. Institutions in this group pose a significant risk to the deposit insurance fund and failure is highly probable.

#### **2.1.6 CAMELS Components**

CAMELS rating system is international bank rating system with which bank supervisory authority rates institution according to six factors. The six areas examined are represented by the acronym "CAMELS". In this acronym, each letter stands:

C -Capital Adequacy

A -Asset Quality

M -Management Quality

E -Earnings

L -Liquidity

S -Sensitivity to Market Risk

##### **2.1.6.1 Capital Adequacy(C)**

Capital refers principally to funds contributed by the bank's owners, consisting mainly of stocks, reserve and those earnings that are retained in the bank (Rose, 2002). According to the accounting definitions; capital equals the cumulative value of asset minus cumulative value of liabilities and represents ownership interest in a firm. In banking, the regulatory concept of bank capital differs substantially from accounting capital. Specifically, regulators include certain forms of debts and loan loss reserves when measuring capital adequacy (Koch and Macdonald,

2004). 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. Banks must meet minimum capital requirements before they can be chartered and they hold at least the minimum required level of capital throughout their corporate life.

Adequacy and inadequacy of bank capital directly affect the banking transaction. The adequacy of bank capital must be an important aspect of a bank. If there is inadequacy of capital, the bank should take steps for the adequacy of capital as per legal requirement. The bank should remove the inadequacy of capital through the medium of collecting ownership and borrowed capital. The bank should pay attention to many things for the adequacy of capital. To have the ownership over capital is most for the bank. It creates many opportunities. The bank should reduce the amount of the borrowed capital as far as possible. It is not good for a bank to collect borrowed capital. Also it is not good for it to have a 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 forward. Therefore, special attention should be given to the adequacy system of the bank capital, if there is a scarcity of capital in a bank, the bank's economic aspects can't be regarded as capable and healthy (Bhandari, 2003).

**Implementations of BASEL II Capital Accord:** Basel capital accord is a capital adequacy framework developed by the Basel Committee on Banking Supervision (BCBS). BCBS is a committee of banking supervisory authorities that was established by the central bank governors of the groups of the countries in 1975. It consists of senior representation of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States. It usually meets at the bank of international settlements (BIS) in Basel, Switzerland where its permanent secretariat is located. Basel II is the new international capital standard set by BCBS. It aims to replace Basel I, which was issued in 1988 with an amendment in 1996, to make the capital framework risk sensitive (About Basel Committee on Banking Supervision <<http://www.bis.org/bcbs/>>).

The BCBS released the "International Convergence of Capital Measurements and Capital Standards: Revised Frameworks." Popularly known as Basel II, on June 26, 2004. This framework was updated in November, 2005 and a comprehensive version of the framework was issued in June, 2006. Basel II builds significantly on Basel I by increasing the sensitivity of capital to key bank risks. In developing the new framework, the Basel committee wanted to incorporate many elements that help promote a sound and efficient financial system over and above the setting of minimum capital requirements with this in mind, the Basel II framework incorporates three complementary 'Pillars' (namely minimum capital requirements, supervisory review process

and market discipline) that draw on the ranges of approaches to help ensure that banks are adequately capitalized in commensurate with their risk profile.

The BCBS recommendations on capital accord are important guiding framework for the regulatory capital requirement to the banking industry all over the world and Nepal is no exception.

With a view of adopting the international best practices, NRB has already expressed its intention to adopt the Basel II framework, though in a simplified form. In line with the international development and through discussion with the stakeholders, evaluation and assessment of impact studies at various phases, NRB has issued capital adequacy framework 2007. This framework provides the guidelines for the implementation of Basel II framework in Nepal. This framework also builds around three mutually reinforcing pillars, viz. minimum capital requirements, supervisory review process and disclosure requirements (Khanal, 2010).

#### **NRB Directives Related to Capital Adequacy**

NRB has from time to time stipulated minimum capital fund to be maintained by the FIs on the basis of risk weighted assets. The total capital fund is sum of core capital and supplementary capital. According to the NRB unified directives for banks and non banks FIs issue number E.pra.Ni.no.02/070 (July, 2013); the capital funds of a bank comprise the following:

**Core Capital :** Core capital (tier 1) of a bank includes paid up capital, share premium, irredeemable preference share, general reserve fund, accumulated profit and loss, capital redemption reserve, capital adjustment fund and other free reserve. However, where the amount of goodwill exists, the same shall be deducted for the purpose of calculation of the core capital.

**Supplementary Capital:** Supplementary capital (tier 2) includes general loan loss provision exchange fluctuation reserve, assets revaluation reserve, hybrid capital instrument, subordinated term loan, excess loan loss provision and investment adjustment reserve.

According to the NRB every development bank shall maintain the capital requirement set out below:

- A tier 1 (core capital) of not less than 5.5 percent of total risk weighted assets.
- A total capital fund of not less than 11 percent of its total risk weighted assets.
- NRB has directed all the development banks that the amount of the supplementary capital should not exceed the amount of core capital (NRB, 2013).

### **2.1.6.2 Assets Quality (A)**

The asset Quality means the capacity of assets that generate income as well as the recoverability of the principal amount as per their prescribed terms and conditions. The quality of assets would depend largely on the risk management system of institution. An excess of defaulted or delayed repayment of loans and high percentages of other non earning assets have negative effects on institution's earning because these assets are not earning income. Loan and advances dominate the asset side of the balance sheet of any financial institution. Moreover, the earnings made from such loans and advances take up a major span in income statement of the institutions. Asset quality measures how effective an institution is at lending money to people who are willing and able to repay promptly from the income generating as a result of investing in the productive sectors. To have a success of such institutions, it is to crucial need to know the value of loan and advances which have a direct impact in the earnings of the institution (Ale, 2007).

NRB has directed the FIs in regards to the concentration of the Loan. Any licensed FIs can grant the fund base loan to a single borrower or borrowers related to the same business group up to the 25 percent of its primary capital. In the same way, it can provide the non-fund base loan up to 50 percent of its core capital. Similarly, it has directed FIs to classify the loans into performing loans and non-performing loans/ assets. Further, non- performing loans are classified in to three groups: Sub standard, doubtful and bad debt or loss (Baral, 2005).

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

Non-performing loan means an outstanding loan not repaid, i.e. neither payment on interest or principle are made. In cases of the banks the loans and advances are the assts as the banks flow loans for the funds generated through shareholders equity, money deposited by the people and fund having through the borrows. Hence the terms NPA means the loans and advances that are not performing well. Thus all the irregular loans can be terns as NPA. Generally, non-performing loans/assets include all loans in the portfolio more than 90 days overdue on interest or principle payments. The definition of NPA differs with countries of the Asia pacific economic cooperation (APEC) forum: loan is classified as non-performing only after it has been in arrear for at least six months. In India, after three months from the date of deemed commercial production to release interest income, any default or reschedule was considered as NPA on the book of accounts (Khamcha, 2009).

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

NRB unified directive for banks and non bank FIs (July, 2013) through directive number E. Pra. Ni. No. 02/070 requires the bank to classify outstanding loans and advances on the basis of

aging of principal amount. As per the directive the loans and advances should be classified in to the following four categories:

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

**Substandard:** All loans and advances that are past due for a period of three months to six months included in this category.

**Doubtful:** all loans and advances, which are past due for a period of six months to one year included in this category.

**Loss:** All loans and advances which are past due for more than one year and have least or thin possibility of recovery or considered unrecoverable shall induced in this category. Besides this, any loan whether past due or not, in situations of inadequate security, borrower declared insolvent, nowhere about of the borrower or misuse borrowed fund are to be classified as loss category.

Loan and advances falling in the above category of sub-standard, doubtful and loss class are defined as non-performing loan. The loan loss provisioning: Nepal Rastra Bank has made it mandatory to financial institution to make the loan loss provisioning on the basis of outstanding loans and advances and bill purchases on the following basis:

**Table No.2.1**

**Classification of Loan and Required Provision**

Classification of Loan	Criteria	Loan loss provision
Pass	Not overdue and overdue up 3 months	1%
Substandard	Overdue up to 3-6 months	25%
Doubtful	Overdue up to 6-12 months	50%
Loss	Overdue by more than 12 months	100%

*Source: NRB Directives, 2070*

Loan loss provision set aside for performing loans is defined as general loans loss provision and loss provision set aside for non-performing loan is defined as specific loan loss provision.

**Rating the Assets Quality Factor**

- Rating of one indicates strong asset quality and credit administration practices. Identified weaknesses are minor in nature and risk exposure is modest in relation to capital protection and management’s abilities. Asset quality in such institutions is to minimal supervisory concern.

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

#### **2.1.6.3 Management Quality (M)**

The quality of Management is the most important element in CAMELS framework of financial performance analysis. Management of any FIs includes the board of director, who are elected by the shareholders, and executive officers, who are appointed by the board. It is the management who is responsible to mobilize the resources of the bank and to create a sound control environment and risk management practices. A sound management is crucial for the success of any institutions. Management quality refers to the capability of the board of directors and executive officers in their respective roles to identify, measure, monitor and control the risks of an institutions activity and to ensure a FI's safe, sound and effective operation in compliance with applicable laws and regulations. It is primarily a qualitative factor applicable to individual institutions, so this component is difficult to measure. Several indicators, however, can jointly serve as an indicator of management soundness for instance, efficiency measures like expenses ratios, earning per employee, cost per loan, average loan size and cost per unit of money lent etc.

## **Rating the management Factors**

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

#### **2.1.6.4 Earnings (E)**

Earning quality is the ability of bank to continue to realize strong earnings performance. An analysis of the earnings helps the management, shareholders and depositors to evaluate the performance of the banks sustainability of earnings and to forecast growth of the bank. Financial institutions must earn reasonable profit to support asset growth build up adequate reserves and enhance shareholder's value. Good earnings performance would inspire the confidence of depositors, investors, creditors and the public at large.

The success of the bank heavily relies upon the efficiency of its management to drive the bank to earn good profits. Profit is an important factor that determines the firm's expansion and diversification. A required level of profit is necessary for the firm's growth and survivens in the competitive environment. Profitability is the measurement of the worth of the selected investment in various categories of assets depending largely on sales performance and operative efficiency. Profitability is vitally more important than assuring that a bank stays in business or activity (Sharma, 2007).

Earning capacity largely counts on the efficiency of management. Chronically, losses making commercial banks reduce their capital base, risk the solvency and eventually bring down the wealth of their shareholders. Conversely, constantly profit making banks add equity is the total capital fund, reduce the risk of insolvency, and finally increase banks add equity to the total capital fund, reduce the risk of insolvency, and finally increase the wealth of their shareholders. So, earning capacity is one of the indicators of the sound health of a financial institution. Though different indicators can be used to measures the profitability of banks (Baral, 2005).

The purpose of earning (E) measured in CAMELS is to provide a ratio representative of management's levels of effectiveness in utilization of assets to earn profit. The earnings are, thus assessed to evaluate the current and future earning capability and the efficiency of the firm base on the existing assets and liability structure, as well as pricing and costs (Madura, 2001).

#### **Rating the Earning Factor**

- Earning rated one is strong. Earning are more than sufficient to support operations and maintain adequate capital and allowance levels after are given to assets quality, growth and other factors affecting the quality, quantity and trend of earning.
- Earning rated two would be satisfactory and sufficient support operations and maintain adequate capital and allowances levels after consideration is given to asset quality, growth

and other factors affecting the quality, quantity and trend of earnings. Earnings that are relatively static or even experiencing a slight decline, may receive a two rating provide the institution's level of earnings is adequate in view of the assessment factors listed above.

- Earnings rated three may need to improve. Earnings may not fully support operations and provide for the accretion of capital and allowance levels in relation to the institution's overall condition, growth and other factors affecting the quality, quantity and trend of earnings.
- A rating of four indicates earnings that are deficient. Earnings are insufficient to support operations and maintain appropriate capital and allowances levels. Erratic fluctuations in net income or net interest margin, the development of significant negative trends, nominal or unsustainable earnings, intermittent losses, or a substantive drop in earnings from the previous years may characterize institutions so rated.
- A rating of five indicates earnings that are critically deficient. A FI with earnings rated five is experiencing losses that represent a distinct threat to its viability through the erosion of capital.

#### **2.1.6.5 Liquidity (L)**

Liquidity means the ability of a firm to meet its short term obligations as and when they fall due for payment (Vanhorne, 1990).

Bank should have adequate liquidity to minimize both asset side liquidity risk and liability side liquidity risk of a bank. Both liquidity deficit and much more liquidity surplus indicate the problem in the financial health of a bank. Much more liquidity surplus hurts the profitability of the bank by reducing the return on assets. Similarly liquidity deficit also cost much to the bank in terms of the higher purchasing price of liquidity and hurts in the reputation of the banks. Therefore, bank should strike the trade-off between the profitability and liquidity risk (Baral, 2005).

Liquidity of a firm can be measure by establishing a relationship between cash and other current assets to current obligations. There must be proper balance between liquidity and lack of liquidity because the failure of a firm to meet its obligations due to the lack of sufficient liquidity will result in bank credit image, loss of creditor's confidence or even in law suits resulting in the closure of the same (Pandey, 1987).

Bank must be able to manage demand and supply of funds. Cash balance, bank balance and investment in government bonds are the most liquid form assets. Optimum liquidity is achieved

by balancing risks and returns. In banks liquidity needs to be high enough to meet even unexpected changes in Liquidity needs and sources. On other hands, liquidity should not be too high because there is on opportunity cost in the scene of excessive near cash assets that could be earning higher rates of return if funds were invested in other assets. Thus the bank must trade off the cost of maintaining excessive liquidity and the cost of insufficient liquidity (Gupta and Kolari, 2005).

A bank is considered to be a liquid if it has ready access to immediately spendable funds at reasonable cost at precisely the time those funds are needed (Rose, 2002). The bank liquidity is the ability of bank to meet its current obligations for cash outflow and to respond to changes in customer demand for loans and cash withdrawals without selling assets at a substantial loss. Bank assets are liquid to the extent that they may be easily converted into cash without loss (Johnson, 1993).

### **Rating the liquidity Factors**

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

## **NRB Directives Related to liquidity**

According to NRB, every development bank has maintained minimum balance of cash reserve ratio 5.5% of their total deposit liabilities compulsory. Under subsection (1) they should bears the following penalty for not sufficient of minimum requirement balance.

- First time insufficient balance is existing bank interest rate.
- For second times of under balance are one and half of bank interest rate.
- For third times of under balance to double of bank interest rate.

*(NRB Directives, 2013).*

### **2.1.6.6 Sensitivity to Market Risk (S)**

The sensitivity to market risk components reflects the degree to which changes in interest rates, foreign exchanges rate, commodity prices or equity prices can adversely affect a FI's earning or economic capital (Baral, 2005). When evaluating this component, consideration should be given to: management's ability to identify measure monitor and control market risk; the institution's size; the nature and complexity of its activities; and the adequacy of its capital and earning in relation its level of market risk exposure. For many institutions, the primary source of market risk arises from non-trading positions and their sensitivity to change in interest rates. In some larger institutions, foreign operations can be a significant source of market risk. For some institutions, trading activities are a major source of market risk. Market risk is rated based upon but not limited to an assessment of the following evaluation factors.

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

#### **Rating the sensitivity to Market Risk Factor**

- A rating of one indicates that market risk sensitivity is well controlled and that there is minimal potential that the earning performance or capital position will be adversely affected.

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

- A rating of two indicates that market risk sensitivity is adequately controlled and that there is only moderate potential that the earnings performance or capital position will be adversely affected. Risk management practices are satisfactory for the size, sophistication and market risk accepted by the institution. The level of earnings and capital provide adequate support for the degree of market risk taken by the institution.
- A rating three indicates that control of market risk sensitivity needs improvement or there is significant potential that the earnings performance or capital position will be adversely affected. Risk management practices need to be improved given the size, sophistication and level of market risk accepted by the institution. The level of market risk taken by the institution.
- A rating four indicates that control of market risk sensitivity is unacceptable or that there are high potentials that the earnings performance or capital position will be adversely affected. Risk management practices are deficient for the size, sophistication and level of market risk accepted by the institution. The level of earnings and capital provide inadequate support for the degree of market risk taken by the institution.
- A rating of five indicates that control of market risk sensitivity is unacceptable or that the level of market risk by the institution is in imminent threat to its viability. Risk management practices are wholly inadequate for the size, sophistication and level of market risk accepted by the institution.

## **2.2 Research Review**

The research studies and work paper carried out by different scholars within various geographical regions including dissertations by Nepalese scholars are reviewed in this section which are related with financial performance analysis of commercial bank, finance company and other areas of the study. It includes review of dissertations and review of research and work paper.

### **2.2.1 Review of Dissertations**

Bhandari (2006) conducted a study entitled "Financial Performance Analysis of Himalayan Bank Limited in the framework of CAMEL". The basic objective of the study was to analyze the

Financial Performance of Himalayan Bank limited through CAMEL framework during 1999 to 2004 A.D. His major findings were as follows:

- The study revealed that adequate capital of the bank.
- The non-performing loan though in decreasing trend was still a matter of concern.
- The bank was still with better return on equity (ROE) however it were in decreasing trend.
- The decreasing trend of net interest margin showed management slack monitoring over the banks earning assets.
- The liquid funds to total deposit ratios were above the industrial average ratio.
- NRB balance and cash in vault to total deposit ratios were below the industrial average ratio during the study period.

Chand (2006) has conducted a study on financial performance analysis of Nabil Bank Ltd in the framework of CAMELS. The main objective of this study was to analyze the financial performance of Nabil Bank Ltd. It has covered five year data starting from fiscal year 2000/2001 to 2004/2005. His major findings were as follows:

- The bank was running with adequate capital. Capital fund of bank was sound and sufficient to meet the banking operation as per NRB standard.
- The bank had place efficient credit management and recovery efforts of good quality loans were increasing. Further, it seems that amount default associated in loans will decrease in future.
- The management decision related to operation and investments have assisted in controlling control and recovery of bad debts. The management had been able to interest spread and cost effective sources of funds. This helped the bank in increasing the market strength.
- The liquid asset to total deposit ratios were above the industrial average ratio.
- The bank had able to match the risk sensitive asset to risk sensitive liabilities in long term maturity bucket and therefore, interest rate changes had no effect on them.

Gurung (2007) performed the research study entitled “financial performance of Annapurna finance company Ltd in the framework of CAMEL”. The study was based on secondary data covering the period of five years from FY 2058/059 to 2062/063. The researcher has used various financial and statistical tools. The basic objective of the study was to analyze the financial performance of Annapurna finance co. Ltd through CAMEL framework. Researcher has followed a descriptive and analytical research design. His major findings were as follows:

- The company was financially sound and strong.
- The company was running with adequate capital and strictly followed the NRB directives.
- The capital fund of the company was sound and sufficient to meet the financial operation as per the NRB standard.
- The company has placed efficient credit management and recovery efforts.
- The amount of non- performing loans and possibility of default in future was increasing.
- The company was running with the inadequate liquidity to meet its short term obligation.

Sharma (2007) conducted a study entitled “Financial Performance Analysis of Nepal SBI Bank Ltd. in the framework of CAMEL”. The main objective of the study was to analyze the Financial Performance of Nepal SBI Bank Ltd. (NSBL) in the framework of CAMEL during the year 2001 to 2006 A.D. His major findings were as follows:

- NSBL was well capitalize and complying with the directives of NRB.
- The bank has maintained satisfactory level of past due loan on total loan except in 2001.
- Earning per employees of the bank was found quite high.
- Net interest margin (NIM) of the bank was found satisfactory.
- Liquidity position of the bank was found sound.

Devkota (2008) performed a study on financial performance analysis of Fewa Finance Company Limited (FFCL) in the framework of CAMEL. The objective of this study was to analyze the financial performance of FFCL. This study had covered the time span of 2004 A.D. to 2007. Her major findings were as follows:

- Capital adequacy ratios of FFCL were strong.
- Non-performing Loan ratios seems to be increase in the future.
- Loan loss ratios of the company were in fluctuating trend.
- Ratios of expenses to total income were in fluctuating trend.
- Liquidity position of company was found to be critical in FY 2063/064 where liquidity ratio was below the NRB standards.

Gurung (2009) conducted a study on financial performance analysis, of domestic private commercial banks in Nepal in the framework of CAMEL. Here, three banks MBL, BOK and NIC were taken for study purpose from the year 2001/02 to 2006/07. Different indicators of each

component of CAMEL were calculated in the form of financial ratio. Her major findings were as follows:

- Capital adequacy of banks was fair and banks were complying with the directives of NRB on the requirement of core capital and meet supplementary capital adequacy ratio.
- The non-performing loan was also at satisfactory level.
- The BOK was more efficient in case of earning per employee (EPE) and maintaining of operating expenses where as MBL was least efficient.
- The return on equity (ROE) figure and its increasing trends put BOK in first position as compare to MBL and NIC.
- BOK showed better result in case of EPS ratio. The EPS ratios were in the fluctuating trend as compare to MBL and NIC.
- Researcher concluded BOK was better than other two sampled banks.

Adhikari (2011) conducted a study on comparative financial analysis of commercial bank in the framework of BASEL II with reference to Nepal investment bank ltd and Everest bank ltd. The main objective of this study was to analyze the capital adequacy and loan loss provisions of two banks as per the directives of NRB from the fiscal year 2005/06 to 2009/10 A.D. The study was based on both secondary and primary data. His major findings were as follows:

- The average core capital adequacy ratios were maintained by both NIBL and EBL within the five years against the NRB standard.
- Similarly the average supplementary capital adequacy ratios of NIBL and EBL were also maintained.
- The average capital adequacy ratios of NIBL and EBL within the five years were satisfactory level.
- The loan loss provision to total loan and advance of EBL was higher than NIBL.
- EBL had higher credit risk than NIBL.
- Researcher concluded NIBL was on strong position than EBL in his study period.

Shrestha (2011) conducted a study on “Financial Performance Analysis of Machhapurchhre Bank Limited in the framework of CAMEL”. The main objective of this study was to analyze financial performance of MBL through CAMEL framework from FY 2062/063 to 2066/067 B.S. based on secondary data. Her major findings were as follows:

- Capital adequacy ratios of MBL were strong.
- Non-performing loan ratios of MBL were also strong.
- Loan loss ratios seem to be decreasing year by year.
- Earning per employee, ROE, ROA, EPS and NIM of MBL were in decreasing trend.
- The liquid asset to total assets ratios of MBL were in fluctuation trend.
- The NRB balance to total deposit ratio and cash in vault to total deposit ratio of MBL were found above the industry average throughout the study period.

Bagale (2012) conducted a comparative study on “Financial Performance Analysis of Upakar Saving and Credit Cooperative Limited and Walling Saving and Credit Cooperative Limited.” The main objective was to analyze the financial performance of Upakar Saving and Credit Cooperative Limited and Walling Saving and Credit Cooperative Limited from FY 2063/064 to 2067/068 B.S. based on secondary data. Her major findings were as follows:

- In comparison return on total asset of USCC was better than WSCC.
- Return on total deposit ration of both co-operative was in the fluctuating trend.
- The earnings per share of USCC were better than WSCC.
- The return to net worth of both co-operatives was in the fluctuating trend.
- Interest earned to total assets ratio of both co-operatives are satisfactory.
- In terms of total debt to total assets ratio WSCC can better than USCC.
- The total debt to equity ratios of both co-operatives was good.
- Capital adequacy ratios of WSCC were higher than USCC.
- Issue of share and loan to members was increased of these co-operative.
- Profit margin can be improved in the coming year.

Dhital (2012) conducted a study on “Financial Analysis of Paschimanchal Campus, Pokhara”. The main objective of this study was to analyze the financial performance of Paschimanchal Campus. His major findings were as follows:

- Total student’s income was satisfactory.
- More revenue contribution of Bachelor level in this campus than Diploma level.
- More internal revenue rose from civil department than other department.
- Campus was year by year depended to internal budget.
- Campus had not better financial performance in during the study period.

- Academic program run in Paschimanchal Campus was not cost recover from student fees.
- The cost recovery rate from regular student fee was not satisfactory.
- The full paying programs run Paschimanchal Campus are financially self sustainable.

Khadka (2012) conducted a study on “Financial Performance Analysis of Hydropower Company Listed in Nepal Stock Exchange: comparative study of Chilime hydropower company ltd and Butwal hydropower company ltd. The main objective of this study was to analyze the financial conditions and profitability of two hydropower companies listed in Nepal Stock Exchange. His major findings were as follows:

- Liquid position of CHPCL and BHPCL was satisfactory.
- Inventory turnover ratio of CHPCL was greater than BHPCL.
- Capital employed turnover ratio of CHPCL was also greater than ratio of BHPCL.
- Total assets turnover ratio of CHPCL was higher than BHPCL.
- Net profit margin ratio of CHPCL was greater than BHPCL.
- ROA of CHPCL was greater than ROA of BHPCL.
- ROE of both companies was similar.
- EPS and DPS of CHPCL were greater than BHPCL.
- Closing cash balance of CHPCL was greater than BHPCL.
- In conclusion, CHPCL was on strong position than BHPCL.

Lamdari (2012) conducted a study on “Financial Analysis of Local Government”, a case study of the Gorkha District Development Committee. The main objective of this study was to analyze effectiveness of financial resources of Gorkha DDC from FY 2063/064 to 2067/068 B.S. based on secondary data. Her major findings were as follows:

- Internal revenues of Gorkha DDC were very weak and DDC is highly dependent on external revenue.
- Expenditures of Gorkha DDC were fluctuating trend during study period.
- The actual expenditures of Gorkha DDC were less than revenues during study period.
- Financial performance of Gorkha DDC shows that the actual revenues and expenditures were less than the Budgeted revenues and expenditures.
- The financial indicators of Gorkha DDC were very poor.

Subedi (2012) conducted a study on “financial performance analysis of suvechhya saving & credit co-operative society limited” in the framework of PEARLS. The main objective was to examine financial variability and to make suggestion for improving the financial efficiency. His major findings were as follows:

- Allowance for loan losses of SSCCSL have been maintained in first four fiscal years but in last year was below than PEARLS standard.
- Over the five fiscal year study period SSCCSL has not maintained the PEARLS ratio in solvency.
- The net loan to total assets ratio was consistently higher than the PEARLS standard.
- The ratio of liquid investment to total assets was average in three years but was very low in last two year according to PEARLS standard
- The ratio of saving deposits to total assets of SSCCSL was in average.
- SSCCSL has not maintained the ratio net zero cost fund to non-earning assets.
- Non-earning liquid to total assets ratio was maintained.
- Growth in financial investment, saving deposits, member shares, institutional capital and total assets of SSCCSL were in fluctuating trend but growth in membership was satisfactory.

### **2.2.2 Review of Research and Work paper**

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

Berger, Davies and Flannery (2000) carried out a research study on “Comparing Market and Supervisory Assessments of Bank Performance: Who Knows What When?” In this paper, researchers have compared the timeliness and accuracy of (confidential) government assessments of bank conditions against market evaluations of large U.S. bank holding companies. They found that supervisors and bond rating agencies both acquire some information that would help the other group forecast changes in bank condition. In contrast, supervisory assessments and equity market indicators are not strongly interested. Furthermore,

supervisory assessment are generally less accurate than either stock or bond market indicators in predicting future changes in performance except when those assessments derive from a recent onsite inspection visit. To some extent, these findings are consistent with the various parties differing incentives.

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

Gilvert and Vaughan (2004) examines the potential contribution to bank supervision of a model designed to predict which banks will have their supervisory rating downgraded in future periods. This paper compares the ability of two models to predict downgrades of supervisory rating to problem status the Board staff model, which was estimated to predict failures, and a model estimated to predict downgrades of supervisory ratings. They find that both models do about as well as predicting downgrades of supervisory rating for the early 1990s. Overtime however, the ability of the downgrades model to predict downgrades improves relative to that of model estimated to predict failures. This pattern reflects the value of using a model for surveillance that can be re-estimated frequently. They conclude that the downgrades model may prove to be a useful supplement to the Board's model for estimating failures during periods when most banks are healthy but that the downgrade model should not be considered a replacement for the current surveillance framework.

Derviz and Podpiera (2004) investigated the determinants of the movements in the term standard & poor CAMELS bank ratings in the Czech Republic during the period of 1998 to 2001. The same list of explanatory variables corresponding to the CAMELS rating inputs employed by the Czech National Bank's banking sector regulators was examined for both rating in order to

select significant predictors among them. They have employed an ordered response logic model to analyze the monthly long run S & P rating and a panel data framework for the analysis of the quarterly CAMELS rating. The predictors for which they found significant explanatory power are: Capital adequacy, Credit Spread, the ratio of Total Loans to Total Assets and the Total assets value at risk. Models based on these predictors exhibited a predictive accuracy of 70 percent. Additionally, they found that the verified variables satisfactorily predict the S & P rating one month ahead.

Baral (2005) has conducted a research and published his paper in the journal of Nepalese Business Studies (Volume II No.1,December 2005) on health check-up of commercial banks in the framework of CAMEL, a study of joint ventures banks in Nepal. It has covered four fiscal years period from 2001 to 2004.Three joint venture commercial banks of Nepal were randomly selected on historical data disclosed by annual reports of joint venture bank. His major findings were as follows:

- Joint venture commercial banks are well capitalized but their capital base relative to the risk weighted assets is not strong. According to the international convention of rating, their capital base is fair. This implies that their financial health is not so strong to manage the strong balance sheet shocks.
- Quality of assets of joint venture banks on the average is satisfactory. Nonperforming assets of all joint venture banks under study are far below the aggregate percentage of nonperforming assets of commercial banks. Both NPAR and LLRR show that joint venture banks are improving the quality of their assets year by year. On the whole, both NPAR and LLRR imply the sound financial health of the joint venture banks.
- Both indicators—operating expenses ratio and earning per employee—of management quality of joint venture banks are above the industry average during the study period. So, relative to the industry average, performance of management of joint venture banks is satisfactory. On the whole, indicators of management efficiency show relatively healthy joint venture banks in Nepal.
- Earning/profitability indicators—ROE, ROA and PM—show that financial health of joint venture banks is not so weak. In general, earning performance of joint venture banks, as indicated by ROA, is fair. But the financial health, as implied by profitability indicators, of NSBI is weaker than that of other joint venture banks.

- Liquidity indicators of joint venture banks show that they have stored high level of liquidity and are not facing the liquidity deficit problem, instead, they are facing the high liquidity problem. Their high liquidity is affecting their financial health adversely by deteriorating their profitability. Thus, with a view point of liquidity position, the health of joint venture banks is looked like a little bit unhealthy.

Purohit and Mazumder (2006). In their research on performance measurement of banks: An application of Balance Scorecard. They had found that the performance measurement of bank under traditional measures including CAMEL rating techniques covers only the financial ratios i.e., qualitative factors but under Balance Scorecard techniques it covers both quantitative (financial ratios) and qualitative (customer, interval business and innovations and learning aspects). The non financial performance measurements such as customer satisfaction, employee development and satisfaction, fund management etc are equally important with the financial activities to measure the performance of the bank.

Kyriaki Kosmidou and Constantin Zopoundis (2008) in their studies of measurement of Bank performance in Greece. They had measured the financial performance of commercial banks and co-operative banks of Greece using same and different financial ratios for each type of banks. They had selected eleven financial ratios for each type of bank commercial and co-operative. E.g. of such ratio are Loan/Total Assets, Return on Equity, Return on Assets, equity/Deposits, Equity/Tot6al assts etc. They had stated the reason for using different ratios for each type of bank because the banking legislation of commercial banks is different than those of co-operative banks, They had used Promethee methodology to evaluate the performance of commercial and co-operative banks in Greece with the old of specific financial ratios (The promethee method is the extension to the CAMEL rating system which is widely used in the assessment of bank performance). The output of the ration analysis was used in promethee method is that it does not assume a linear evaluation model and it can easily be used with qualitative data. They had found that commercial banks are tending to increase their accounts, to attract more customers and ameliorate their financial indices, there by becoming more competitive and maximizing their profits. They had found that commercial banks are becoming more and more competitive by making performance better and hedge their financial risk in order to be more competitive among the European banking institutions.

### **2.3 Research Gap**

It is wrong to claim that this research subject matter is totally undone because there are lots of articles published related to financial performance analysis but the researches done in the context of Nepal have mainly emphasized on liquidity, profitability and leverage of the commercial banks. These studies lack micro-level analysis and have found applying traditional

analysis of financial performance. In the context of Nepalese banking environment most of the past studies have made about financial performance analysis in the framework of commercial bank and comparative analysis was done but just a few academic researchers has been conducted in the framework of CAMELS. Some studies also missed the 'S' factor of the CAMELS but no study has been made about financial performance analysis in the framework of CAMELS of City Development Bank Ltd. from the FY 2065/066 to FY 2069/070. Thus researcher felt need of conducting a research on the financial performance analysis of a development bank. So this research will be conducted to know actual financial performance of City Development Bank in the framework of CAMELS.

## CHAPTER III

### RESEARCH METHODOLOGY

This chapter provides the overall framework of plan for the collection, presentation and analysis of data required to fulfill the objective of the study. Research methodology is the way to solve systematically about the research problem. It also specifies the method and procedure for acquiring the information needed to solve the research problem. This chapter includes research design, population and sample, nature and source of data, method of data collection, data analysis tools and limitation of methodology. So research methodology is a sequential procedure and methods to be adopted in a systematic study. To achieve the objective for the study, following proper methodology will be adopted.

#### **3.1 Research Design**

Research design is outline, plan and strategy of investigator to obtain answer to research question and control variance. It is proper framework, procedures or technique that helps to do research in any field at a minimum cost and time successfully manner. So, it includes descriptive and analytical research design to attain the research objective. The related data with topics are collected through financial statement of the bank and other available sources. Here, different financial tool are applied to examine the healthiness of bank.

#### **3.2 Population and Sample**

NRB is the central bank, which perform regulating and monitoring role for all financial institutions in the liberalized financial environment. Altogether there are 88 development bank in Nepal are running is taken as population .For the convenient purpose the study is concentrated in a single unit; city development bank which is selected as sample for this study. For the sampling purpose convenience sampling method is used.

### **3.3 Nature and Source of Data**

As per nature of the study it is based on secondary data. For the study purpose, annual reports of city development bank and compiled data from the Nepal Rastra Bank websites, unpublished thesis, journals/articles are used as major source of data.

### **3.4 Data Collection Procedure**

Basically, the study is based on secondary data so the annual report of city development bank is collected from the city development bank and other information of city development bank is collected from website of the bank, NRB directives, banking, and statistics and other publications is collected from the website of NRB. Other supplementary information, literature review is collected from the western regional library Pokhara and central library TU.

### **3.5 Data Processing and Analysis**

The collection of data is processed manually as well as by using computer program like Ms Word, Ms Excel and processed data are shown in tabulation and chart form. Descriptive financial tools and other required of study is used and analyzed. Financial ratios in framework of CAMELS are the major tool used for the descriptive analysis of the study and simple statistical tools is also used.

#### **3.5.1 Financial Tools**

Financial ratio analysis tools are used to determine the performance of the bank in the framework of CAMELS. These ratios were categorized in accordance of the CAMELS components. Following category of key ratios are used to analysis the relevant components in term of CAMELS.

## **1. Capital Adequacy**

The following ratios are used to assess the capital adequacy of the bank.

### **a. Capital Adequacy Ratio**

Capital adequacy ratio is the numerical relationship between total fund and risk adjusted asset. It measures the adequacy of capital and financial soundness of FI. Capital adequacy ratio is used to measure of capital in the FI. It is worked by using the following model.

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

Where,

CAR = Capital adequacy ratio

Total capital fund = Core capital + Supplementary capital

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

### **b. Core Capital Adequacy Ratio**

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

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

Where,

CCAR = Core Capital Adequacy Ratio

Core Capital = Paid up Capital + Share premium + Non Redeemable preference share + General reserve + Retained earning + Proposed Bonus - Goodwill if any

### **c. Supplementary Capital Adequacy Ratio**

Supplementary capital adequacy ratio is the expression of numerical relationship between supplementary capital and total risk adjusted assts. It measures the proportion of supplementary capital in total risk adjusted assets. Furthermore, it shows the absolute contribution of supplementary capital in capitals adequacy. The ratio is used to analyze the supplementary capital adequacy and determined by using following model.

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

Where,

SCAR = Supplementary Capital Adequacy Ratio

Supplementary Capital = Loan Loss Provision + Exchange Equalization Reserve + Assets Revaluation Reserve + Hybrid Capital Instrument + Unsecured Subordinate Tern Debt + Interest Rate Fluctuation Fund + Other Free Reserve.

## 2. Assets Quality

The following ratios are used to assess the quality of assets of the bank.

### a. Non-performing Loan Ratio

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

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

Where,

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

### b. Loan Loss Ratio

The loan loss ratio is the expression of numerical relationship between loan loss provision and loan and advances. The loan loss provision is a reserve account established by the bank in anticipation of loan losses in future. It is used to appraise quality of asset. It measures the proportion of loan loss provision in total loan and advances. This ratio shows the possibility of loan default of the bank. Higher ratio implies higher portion of non-performing loan portfolio and vice-versa. For the purpose of this study following model is used to determine the loan loss ratio.

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

## 3. Management Quality

The following ratios can be used to determine the quality of bank's management.

### a. Operating Expenses Ratio

The operating expenses ratio is the expression of numerical relationship between total operating expenses and total operating incomes of the bank. It measures the proportion of total operating expenses in total operating income. A low or decreasing ratio of expenses to incomes indicates that a firm is operating efficiently. The increasing ratio of expenses to income will negatively affect profitability of the firm. Following is the model of total expenses to total income ratio.

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

Where,

Operating Expenses = It includes interest expenses, staff expenses, other operating expenses, provision for possible loss.

Operating Incomes = It includes interest income, commission and discount income, other operating income, exchange fluctuation income.

### **b. Earning Per Employee**

Earning per employee is the numerical relationship between net operating incomes to total number of employee can reflect inefficiencies as a result of overstaffing with similar repercussion in terms of operating income. It is calculated by using the following model.

$$\text{Earning Per Employee} = \frac{\text{Net Operating Income}}{\text{Total Number of Employees}}$$

## **4. Earning Quality**

The following Ratios can be used to assess the quality of bank's earnings.

### **a. Return on Equity ( ROE)**

The return on equity indicates the relationship between net profit taxes to total equity capital. It measures of the rate of return following to the company's shareholders (Rose, 2002). Higher the ratio the more favorable it is for the shareholders which represent the sound management and efficient mobilization to the owners equity. For the purpose of the study following model is used to determine the return of equity ratio.

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

Where,

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

### **b. Return on Assets (ROA)**

Return on assets expresses the relationship between net income and total assets. It is primarily an indicator of managerial efficiency it indicates how capable the management of the firm has

been converting the institution assets into net earnings (Rose, 2002). It was calculated by using the following model.

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

### c. Profit margin(PM)

A ratio of profitability calculated as net income divided by total operating revenues. A higher profit margin indicates a more profitable bank that has better control over its costs. It shows the proportion of net income in total operating revenues. The following model is used to determine profit margin.

$$\text{Profit margin} = \frac{\text{Net Profit After Tax}}{\text{Operating Income}} \times 100$$

### d. Earnings Per Share (EPS)

The portion of a company's profit allocated to each outstanding share of common stock is earning per share. It provides a direct measure of the returns following to the firm's owners, its stockholders, measured relative to the numbers of shares to the public (Rose, 2002). Earning per share serve as indicator of a company's profitability. Following is the expression of earning per share.

$$\text{EPS} = \frac{\text{Net Profit After Tax}}{\text{Number of Share}}$$

## 5. Liquidity Position

The following ratio can be used to assess the liquidity of the bank.

### a. Total Liquid Fund to Total Deposit Ratio

Total liquid fund to total deposits ratios is the expression of numerical relationship between total liquid fund and total deposits. Furthermore, it shows the overall short-term liquidity position. The higher ratio implies the better liquidity position and lower ratio shows the inefficient liquidity position of the firms. It is calculated by using following model.

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

Where,

Total Liquid Fund = Cash in Hand + Balance with NRB + Balance with Domestic Bank + Foreign Currency in Hand + Balance Held aboard + Calls Deposits

### **b. NRB Balance to Total Deposit Ratio**

NRB balance to total deposits ratio is the expression of numerical relationship between NRB balances to total deposits of firm. It measures the proportion of NRB balance in total deposits. It shows whether a bank is holding the balance as required by Nepal Rastra Bank or not. Following model used to determine the NRB balance to total deposit ratio.

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

Where,

NRB Balance = Balance with Nepal Rastra Bank

### **c. Cash in vault to Total Deposit Ratio**

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

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

Where, Cash in Vault = Cash in hand + foreign currency in hand

## **6. Interest Rate Sensitivity**

The interest rate sensitivity position of financial institution is estimated by GAP analysis. A Gap exists between these interest sensitive assets and interest sensitive liabilities. If an interest sensitive assets in each planning period i.e. day, week, month etc exceed the volume of interest sensitivity liabilities subject to reprising the bank is said to have positive gap and to be assets sensitive. If  $\Delta R_i$  is the average interest change affecting assets and liabilities that can be reprised within ith maturity bucket, the effect on the bank's Net Interest Income (NII) in the ith maturity bucket is calculated by (Saunders and Cornett, 2004).

$$\Delta NII_i = \left[ \sum_{i=1 \text{ day}}^{i = \text{ith Maturity Bucket}} RSA_i - \sum_{i=1 \text{ day}}^{i = \text{ith Maturity Bucket}} RSL_i \right] \times \Delta R_i$$

Where,

$\Delta NII_i$  = Change in interest income in the ith maturity bucket.

GAP<sub>i</sub> = Rupee size of gap between book value of rate sensitivity assets (RSA) and rate sensitivity liabilities (RSL) in maturity bucket i.

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

$$\Delta NII_i = CGAP \times \Delta R_i$$

CGAP =

$$\left[ \begin{array}{c} i=90\text{days} \quad i=90\text{days} \\ \sum RSA_i - \sum RSL_i \\ i=1\text{day} \quad i=1\text{day} \end{array} \right] + \left[ \begin{array}{c} i=180\text{days} \quad i=180\text{day} \\ \sum RSA_i - \sum RSL_i \\ i=91\text{days} \quad i=91\text{day} \end{array} \right] + \left[ \begin{array}{c} i=270\text{days} \quad i=270\text{days} \\ \sum RSA_i - \sum RSL_i \\ i=181\text{days} \quad i=181\text{days} \end{array} \right] + \left[ \begin{array}{c} i=360\text{days} \quad i=360\text{days} \\ \sum RSA_i - \sum RSL_i \\ i=271\text{days} \quad i=271\text{days} \end{array} \right]$$

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

$$\text{Interest rate sensitivity} = \frac{CGAP}{A} \times 100$$

### 3.5.2 Statistical Tools

#### a. The Mean (Average):

A simple arithmetic average is used to summarize the data as a representation of mean data. A simple arithmetic average is a value obtained by dividing the sum of the values by their numbers (Kothari, 2004). Thus, the average is expressed as:

$$\bar{X} = \frac{\sum X}{N}$$

Where,

$\sum$  = Symbol of Summation

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

N = Number of observation

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

## **b. Standard deviation**

Standard deviation is the absolute measure of dispersion of the values and shows the deviation of dispersion or dispersion in absolute term (Kothari, 2004). It is said that higher the value of standard deviation the higher the variability and vice-versa. Here, the standard deviation is used to find out the deviation in absolute term. Standard deviation is determined in following way.

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

Where,

n = no. of observation

x = Individual value

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

## **c. Coefficient of Variation**

Coefficient of variation is the relative measure of dispersion on the standard deviation on the standard deviation (Kothari, 2004). It is most commonly used to measure the variation of data and more useful for the comparative study of variability in two or more series or graph or distribution, symbolically, the coefficient of variation is calculated as;

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

Where,

CV = Coefficient of Variation

$\bar{X}$  = Mean

$\sigma$  = Standard Deviation

## **d. Least Square Trend Analysis**

Least square trend has been used to find out the trend of ratios. The general equation used for trend is given below.

$$Y = a + bx$$

Where,

Y = Dependant Variable

X = Coded time in Year (independent variable)

a = y-intercept

b = Slope of the trend line

In the above model,

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

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

### 3.6 Limitation of Methodology

To fulfill MBS level requirement this research has been prepared which includes the CDBL financial status and its analysis and being concerned upon merely six components of CAMELS, which in general environment in Nepalese context can be adapted and similar tools are used. However, as samples within a definite time span some limited data having included in analysis which does not represented absolute financial status. Moreover, within it only the quantitative tools analysis is used which does not represent qualitative assessment. But it surely gives particular direction to an industry. Most data available from banks seem to be dissimilar which pose ambiguity in recognized real statement of data. However, provisioned and audited data provided by banks are used as useful sources.

All necessary elements, values, norms, methodologies and systems cannot adopt in research process as on absolute one. Though it includes those elements and follows the system which is similar and familiar with subjective and time. Finally, different models and tools which are used for data collection in the research work are not completely free from the criticism. So, it is also imposes to draw the line of limitation.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the presentation of data collected from the different sources. The purpose of this chapter is to study, evaluate and analyze the financial performance of city development bank limited in the framework of CAMELS.

#### 4.1 Data Presentation and Analysis

The data collected from different sources has been refined and documented in excel table, which are further processed to analyze and arrive at the finding on the financial condition of city development bank limited in term of CAMELS framework.

##### 4.1.1 Capital Adequacy

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

##### 4.1.1.1 Core Capital Adequacy Ratios

Core (tier1) capital means the primary capital of a FI. Core capital includes the paid up equity capital, share premium, dividend equalization fund, capital adjustment reserve, non-redeemable preference share, general reserve, accumulated profit & loss amount and goodwill deductible if any. In this way, it is the amount of shareholders fund. It gives an assurance to the outsiders for smooth operation of a bank even in the time of economic crisis. Core capital adequacy ratio is also known as core capital to total risk adjustment assets ratio, which measures the adequacy of internal sources or shareholder's fund to support the financing activities.

It reflects the financial strength and soundness of a bank. Higher value of the ratio above the NRB standard shows the adequacy of internal sources and higher security to creditors and depositors. The lower value of core capital adequacy ratio with regard to the NRB standard indicates the lower is its internal sources. Table 4.1 present the observed value of core capital adequacy ratio of CDBL, during the period of past five FYs.

**Table: 4.1**

**Core Capital Adequacy Ratio**

Amount in thousands

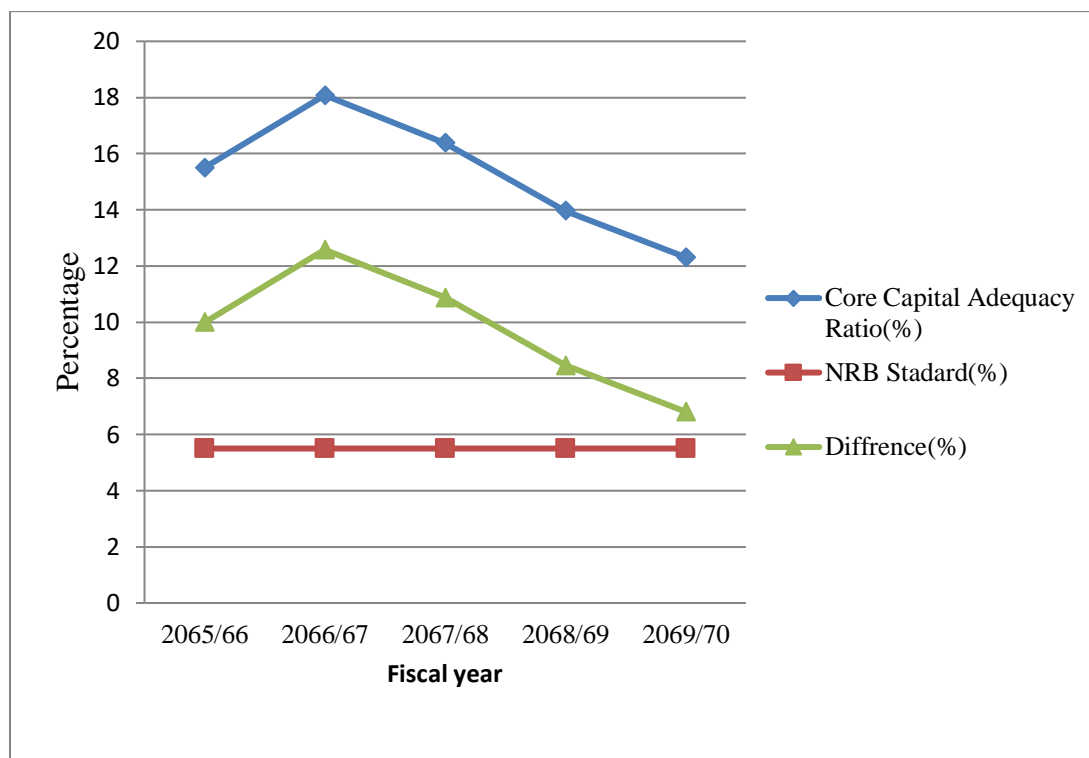
Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Core Capital (Rs)	152238.75	234665.63	253714.42	280445.70	332894.43
Total risk weighted assets(Rs)	982224	1298174	1548513.10	2008424.19	2704280.84
Core capital adequacy ratio (%)	15.5	18.08	16.38	13.96	12.31
NRB standard (%)	5.5	5.5	5.5	5.5	5.5
Difference (%)	10	12.58	10.88	8.46	6.81

*Sources: Annual Reports, CDBL*

As shown in table 4.1, the core (Tier 1) capital ratio of CDBL is maximum of 18.08% in FY 2066/67 and minimum of 12.31% in FY 2069/70. Thus, it is clear that core capital adequacy ratio of the CDBL is increased in FY 2066/67 and thereafter, it is decreasing tendency up to FY 2069/70. The ratio is in fluctuating trend. However, the core capital adequacy ratio of CDBL is greater than the NRB standard over the study period which shows bank is very well capitalized and there is enough shareholders fund to manage the shock in balance sheet. It shows that creditors and depositors funds are in riskless condition. The observed value of core capital adequacy ratio of CDBL is shown with NRB in figure 4.1 below.

Figure: 4.1

**Core Capital Adequacy Ratio with NRB Standard.**



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

**4.1.1.2 Supplementary Capital Adequacy Ratio**

Supplementary (Tier 2) capital is another component of financial institutions. Supplementary capital means the amount of capitals that are transferred in free reserve and collected by using the hybrid capital instruments, general loan loss provision exchange equalization reserve, assets revaluation reserve, interest spread reserve, subordinate term debt and other free reserve. The ratio reflects proportion of supplementary capital component in total risk adjusted assets and relative contribution in the CAR. NRB regulates supplementary capital ratio by allowing supplementary capital not exceeding 100 % of the core capital for CAR calculation.

**Table: 4.2****Supplementary Capital Adequacy Ratio**

Amount in thousands

Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Supplementary Capital (Rs)	8132.24	11365.74	15427.75	18831.06	24163.41
Total Risk weighted assets(Rs)	982224	1298174	1548513.1	2008424.19	2704280.84
Supplementary capital adequacy ratio (%)	0.83	0.88	1	0.94	0.89
NRB standard (not more than core capital %)	15.5	18.08	16.38	13.96	12.31
Excess/Short (%)	14.67	17.2	15.38	13.02	11.42

*Sources: Annual Reports, CDBL*

As shown in table 4.2, the supplementary Capital ratio of CDBL is increasing trend up to FY 2067/68 and then after, it is decreasing trend. There is maximum supplementary capital 1% in FY 2067/68 and minimum is 0.83% in FY 2065/66 over the study period but only a quite difference. However, the supplementary capital ratio of CDBL is within boundary (not more than Core capital) of NRB standard over the study period. The observed value of supplementary capital ratio of the CDBL is shown with NRB standard in figure 4.2.

Figure: 4.2

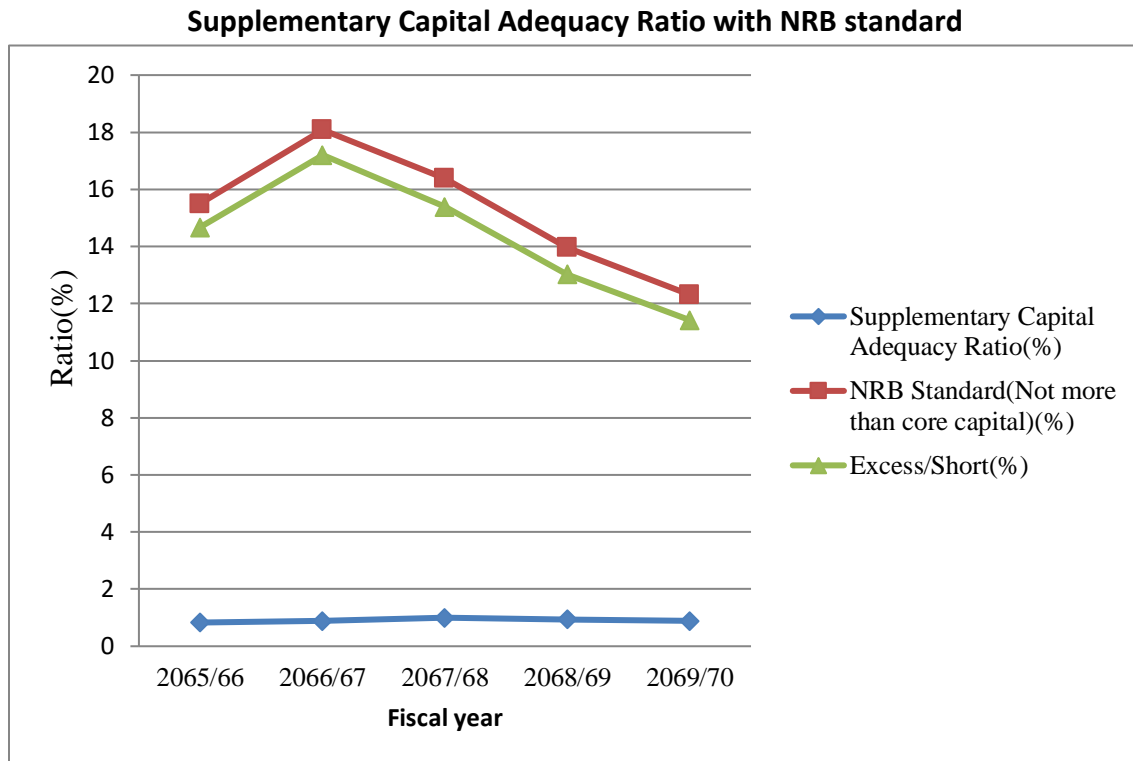


Figure 4.2 shows the observed supplementary capital adequacy ratio is within the standard of NRB, over the study period. It means the supplementary capital of the CDBL is significant as per the NRB standards. The CDBL is able to maintain positive difference greater than 11% through the study period.

#### 4.1.1.3 Total Capital Adequacy Ratio

Total Capital Fund means the amount invested by shareholders, creditors and the amount collects form the various free reserves maintained in a financial institution. Capital funds include the amount of core capital and supplementary capital. Strong capital base is the pre-requisite for the safety and soundness of any company. Capital adequacy ratio above the NRB standard indicates adequacy of capital and signifies higher security to depositors, higher internal sources and higher ability to cushion operational and unanticipated losses. The lower values, on the contrary indicated lower internal sources, comparatively weak financial position and lower security to depositors.

**Table: 4.3**

**Capital Adequacy Ratio**

Amounts in thousand

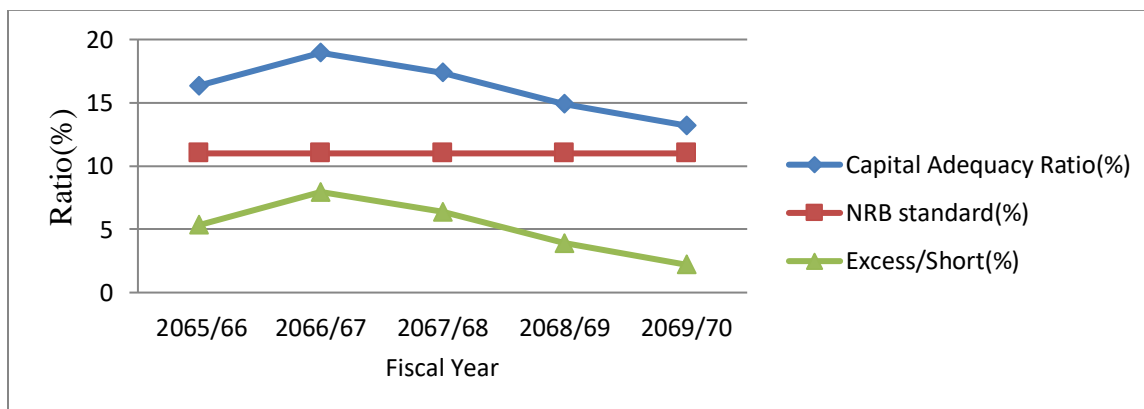
Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Capital Fund(Rs	160370.99	246031.37	269142.17	299276.76	357057.84
Total Risk (Weighted Assets Rs)	982224	1298174	1548513.10	2008424.19	2704280.84
Capital Adequacy Ratio (%)	16.33	18.95	17.38	14.90	13.20
NRB Standard (%)	11	11	11	11	11
Excess/Short (%)	5.33	7.95	6.38	3.90	2.20

Source: Annual Report, CDBL

As shown in table 4.3 the capital adequacy ratio of CDBL is distributed as minimum ratio of 13.20% in FY 2069/70 and maximum ratio of 18.95% in 2066/67. The ratio of CDBL is increased in 2066/67 and thereafter it is decreasing tendency up to FY 2069/70. Capital and risk-adequacy ratio of CDBL is within the boundary of NRB standard even in decreasing trend. The CDBL is able to maintain positive difference through the study period. The observed value of capital adequacy ratio of the CDBL is shown with NRB standard in figure 4.3 below.

**Figure: 4.3**

**Capital Adequacy Ratio with NRB Standard**



As shown in Figure 4.3 the observed capital adequacy ratio of CDBL is above the NRB standard during the study period. The graph further shows that the bank has met NRB standard in all

years. It implies that the bank has maintained an adequate capital adequacy ratio in each year of the study period.

#### 4.1.2 Assets Quality

Assets quality has direct impact on the financial performance of bank and FIs. The quality of assets particularly, loan assets and investments would depend largely on the risk management system of the institution. The value of loan assets would depend on the reliable value of the collateral while investment assets would depend on the market value.

NRB has laid down minimum criteria for the classification of loans based on the overdue period of the advances. Loan with inherent credit weakness are classified as non-performing loan (NPL), which are further, classified into three categories, namely, substandard, doubtful and loan loss requiring provisioning of 25 percent, 50 percent and 100 percent respectively.

##### 4.1.2.1 Non-performing loan to Total loan and Advances Ratio

Loan and advances usually represents the single largest assets category for the bank. Loan is risky assets. Each firm makes its own decisions as to how deposited fund should be allocated and these decisions determine its level of credit (default) risk. Risk of non repayment of loan is known as credit risk.

Lower ratio shows the better proportion of performing loans and risk of default and vice versa. An internationally recognized non-performing loan benchmark is 5% to 8% of total assets.

**Table: 4.4**

#### **Non-performing loan to Total loan and Advances Ratio**

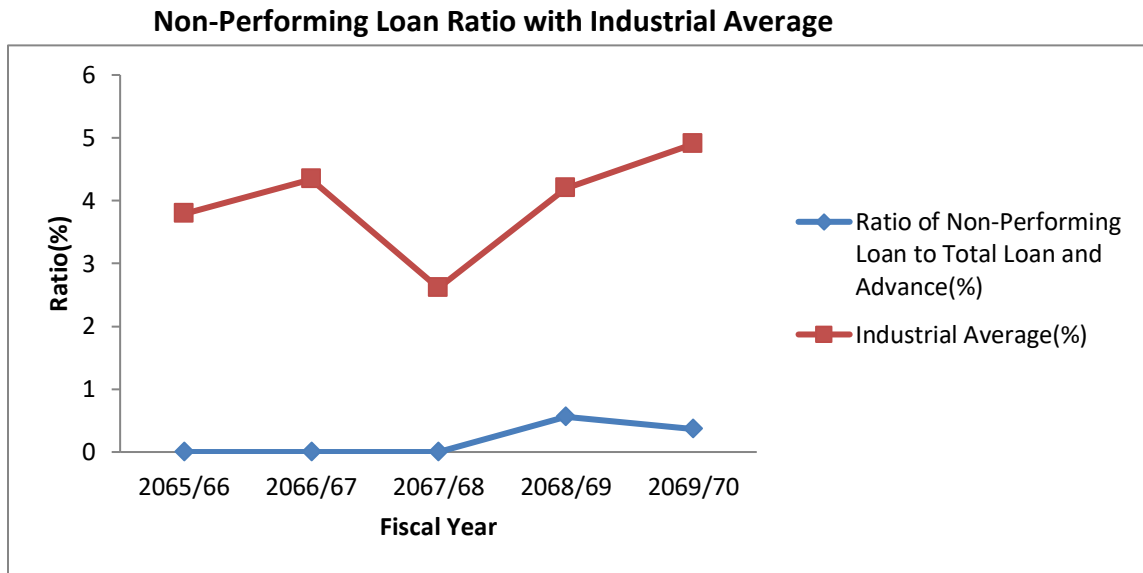
Amount in thousands

Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Total non-performing loan	0	0	0	10158.08	8382.53
Total Loan and Advances (Rs.)	805092.02	1136573.63	1415610.10	1799689.03	2275187.76
Ratio of non-performing loan to Total Loan and advances (%)	0	0	0	0.56	0.37
Industrial Average (%)	3.79	4.34	2.61	4.2	4.9
Difference from Industrial Average (%)	-3.79	-4.34	-2.61	-3.64	-4.53

Source: Annual Reports, CDBL, Banking and Financial Statistics, Mid July 2012

Table 4.4 exhibits the ratio of non-performing loan to total loan and advance of the CDBL with comparison to the industrial average. There is no non-performing loan in three fiscal years FY 2065/66 to 2067/68 in the bank. The ratio of the bank is 0.56% in FY 2068/69 and 0.37% in 2069/70. Both ratios are below the industrial average which indicates better proportion of performing loans and risk of default.

Figure: 4.4



In figure 4.4 the non-performing loan ratio curve of the bank is below the industry average in two fiscal years but there is no non-performing loan in three fiscal years which indicates the better proportion of performing loan. The ratios are below the international standard 5% to 8%. It shows the efficient credit management. It also indicates that the bank has very low credit risk. It reflects the good performance of bank in mobilizing loan and advances.

#### 4.1.2.2 Loan Loss Ratio

The loan loss ratio shows how efficiently the company manages its loan and advances and makes effort for the loan recovery. More delay the company gets to collect the loan, more provision has to make and the ratio will be higher. This will lead to low earning and high losses in the company. The loan loss provisioning ratio indicates adequacy for allowance for loan and trend in the collection of loan and the performance in loan portfolio. It is obtained by the ratio of loan loss provision to the total loan.

**Table: 4.5**

**Loan Loss Ratio**

Amount in thousands

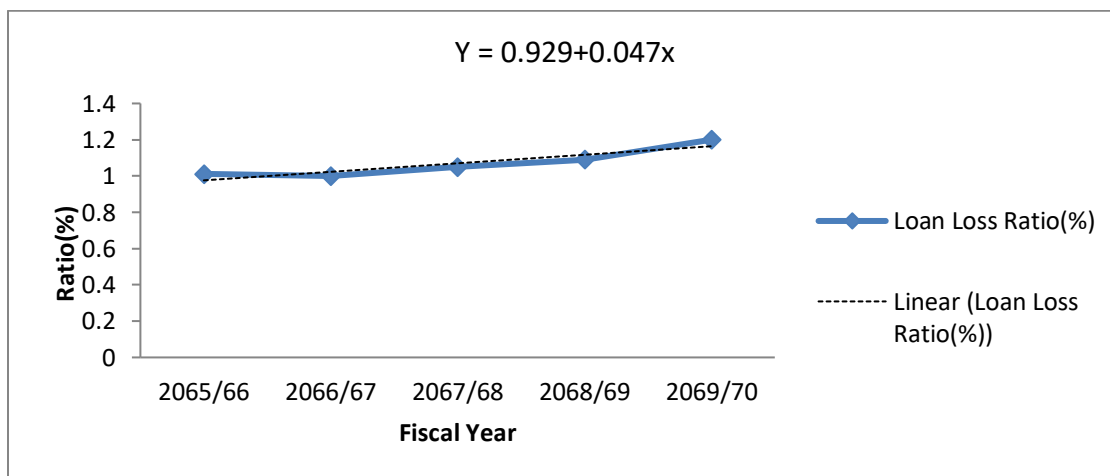
Fiscal year	2065/66	2066/67	2067/68	2068/69	2069/70
Loan loss provision(Rs.)	8132.242 62	11365.736 38	14927.7479 5	19610.0961 6	27295.7180 4
Total loan and Advances(Rs)	805092.0 2	1136573.6 3	1415610.10	1799689.03	2275187.76
Loan loss Ratio (%)	1.01	1	1.05	1.09	1.20
Mean (%)	1.07				
S.D (%)	0.0724				
C.V. (%)	6.76				

Source: Annual Report, CDBL

The data given in the Table 4.5 exhibits that the loan loss ratio of CDBL are 1.01%, 1%, 1.05%, 1.09% and 1.20% in FY 2065/66 to 2069/70 respectively. It reveals that the ratios are fluctuating trend over the study period. The ratio ranges from 1% to 1.20% with a mean average of 1.07%, the C.V. between them is 6.76% .On the basis of C.V., it can be concluded that the ratios are less variable and more consistent.

**Figure: 4.5**

**Trend of Loan Loss Ratio**



As shown in Figure 4.5, the observed value of loan loss ratio along with least square trend line. The slope of trend line determined by the least square method is positive which indicates the trend of the loan loss ratios is increasing over the study period.

### 4.1.3 Management Quality

Good management can take and poor management can break an organization. Sound management is the key performance of any organization but it is difficult to measure. It is primary a qualitative factor applicable to individual institution. However, for the successful operation of a company, the quality of management is the most important factor. However, only operating expenses ratio and earning per employees are used as indicators for management quality.

#### 4.1.3.1 Operating Expenses Ratio

Operating expenses ratio shows the relationship between total operating expenses to total operating incomes. It measures the proportion of total operating expenses in total operating incomes. Low ratio indicates that the bank is operating efficiently and high or increasing ratio can indicate that the financial institutions may not be operating efficiently. This can be but is not necessarily due to management deficiencies. In any case, it is likely to negatively affect profitability. Operating expenses includes interest expenses, staff expenses, other operating expenses, and provision for possible loss and operating incomes includes interest income, commission & discount incomes, other operating incomes and exchange fluctuation incomes.

**Table: 4.6**

#### **Operating Expenses Ratio**

Amount in thousands

Fiscal year	2065/66	2066/67	2067/68	2068/69	2069/70
Total Operating Expense(Rs)	61917.586 15	129407.04 92	212142.66 41	255579.45 24	288811.20 88
Total Operating Incomes(Rs)	78930.771 8	189049.65 32	262703.88 69	325283.01 86	400914.15 74
Operating Expenses Ratio (%)	78.45	68.45	80.75	78.57	72.04
Mean (%)	75.65				
S.D (%)	4.63				
C.V. (%)	6.12				

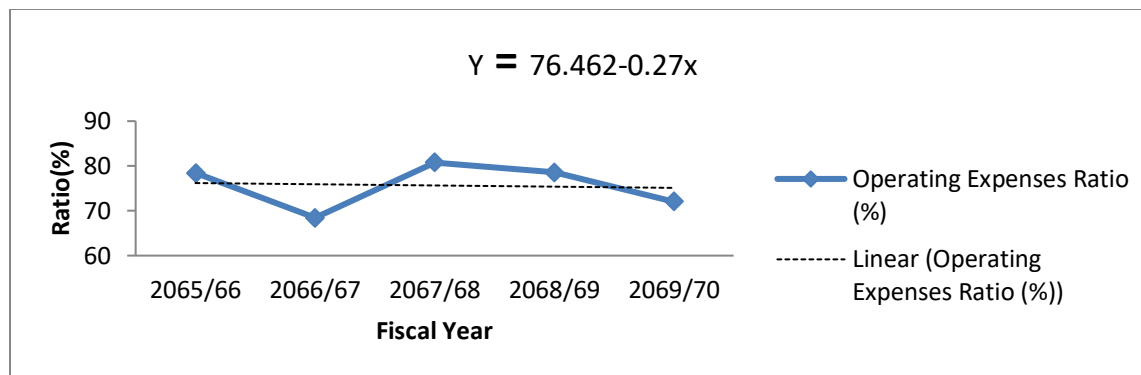
*Source: Annual Report, CDBL*

As shown in the table, the operating ratio of CDBL is minimum in the year 2066/67 by 68.45 percent and maximum in the year 2067/68 by 80.75 percent then after it is in decreasing trends to 2069/70 which shows strong management quality. Because of decreasing trend it can say that the bank is operating efficiently. However, operating revenues is above than operating expenses of CDBL. The ratio is distributed from minimum of 68.45% in FY 2066/67 to maximum

80.75 in FY 2067/68 with average ratio of 75.65% and C.V. between them is 6.12%. On the basis of C.V. it can be concluded that the ratios are less variable and more consistent.

**Figure: 4.6**

**Trend of Operating Expense Ratio**



As shown in Figure 4.6, the observed value of the total operating expenses to total operating income ratio along with least square trend line. The ratio of the bank is in fluctuating trend during the study. The slope of the trend line is negative which indicates the decreasing expenses with respect to income.

**4.1.3.2 Earning Per Employee**

Earning per employee is another indicator of measuring management quality. It shows the relationship between net operating income and number of employees. Low or decreasing earning per employee can reflect inefficiencies as a result of over staffing, which indirectly effect in the profitability of the company.

**Table: 4.7**

**Earning per employee**

Amount in thousands

Fiscal year	2065/66	2066/67	2067/68	2068/69	2069/70
Net Operating Income(Rs)	17013.185	59642.61	50561.22	59703.56	112102.95
No. of Employees	38	48	60	71	84
Earning Per Employee(Rs)	447.72	1242.55	842.69	840.90	1334.56
Mean (Rs)	941.684				

Source: Annual Report, CDBL.

The net operating income is on increasing trend except FY 2067/68 but number of employee is on increasing trend in all over the study period. In FY 2069/70, CDBL earned high profit resulting the earning per employee to be high. In FY 2067/68 earning per employee decreased due to decrease in net profit and increased number of employees. Then after from FY 2068/69 earning per employee has in increasing trend. The observed values are fluctuating over the study period. The mean of the earning per employee for the study period is Rs.941684.

**Figure: 4.7**

**Trend of Earning Per Employee**

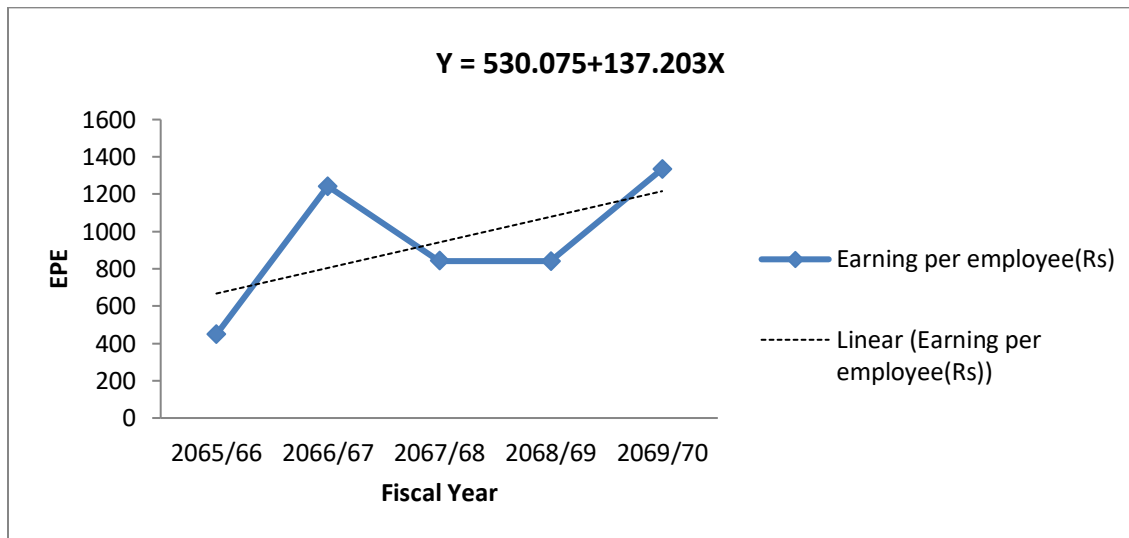


Figure 4.7 shows the observed value of earning per employee along with least square trend line. The slope of trend line is positive, which indicates the earning per employee is increasing over the study period due to increase in net operating profit.

#### **4.1.4 Earning Quality**

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

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

ROE is a measure of a corporation's profitability, calculated as net income to total equity capital. ROE reveals how much profit a bank generates with the money shareholders have invested in the bank. The higher ratio represents sound management and efficient mobilization

of the owner's equity and vice versa. ROE of 15% is treated as standard and banking industry are desired to have higher than this (World Bank, 1996).

**Table: 4.8**

**Return on Equity**

Amount in thousands

Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Net Profit after tax (Rs)	10817.23	38432.68	24091.17	52363.81	72440.56
Shareholders' Equity(Rs)	152142.1	250574.76	254665.92	281029.74	353546.51
Return on Equity (%)	7.11	15.34	9.46	18.63	20.49
Mean (%)	14.21				
S.D (%)	5.16				
C.V. (%)	36.34				

*Source: Annual Report, CDBL*

Table 4.8 shows the ROE of CDBL during the study period. Its ROE remained below the benchmark of 15% in two FY 2065/66 and 2067/68 throughout the study period. The ratio is in increasing trend from FY 2065/66 but decreased in 2067/68 and then after it is also in increasing trend to the FY 2069/70 which indicates the sound management and efficient mobilization of owner's equity. The mean ratio of ROE is 14.21% and C.V. between them is 36.34%. On the basis of C.V. it can be concluded that the ratios are variable and not consistent with the increasing trend.

**Figure: 4.8**

**Trend of Return on Equity Ratio**

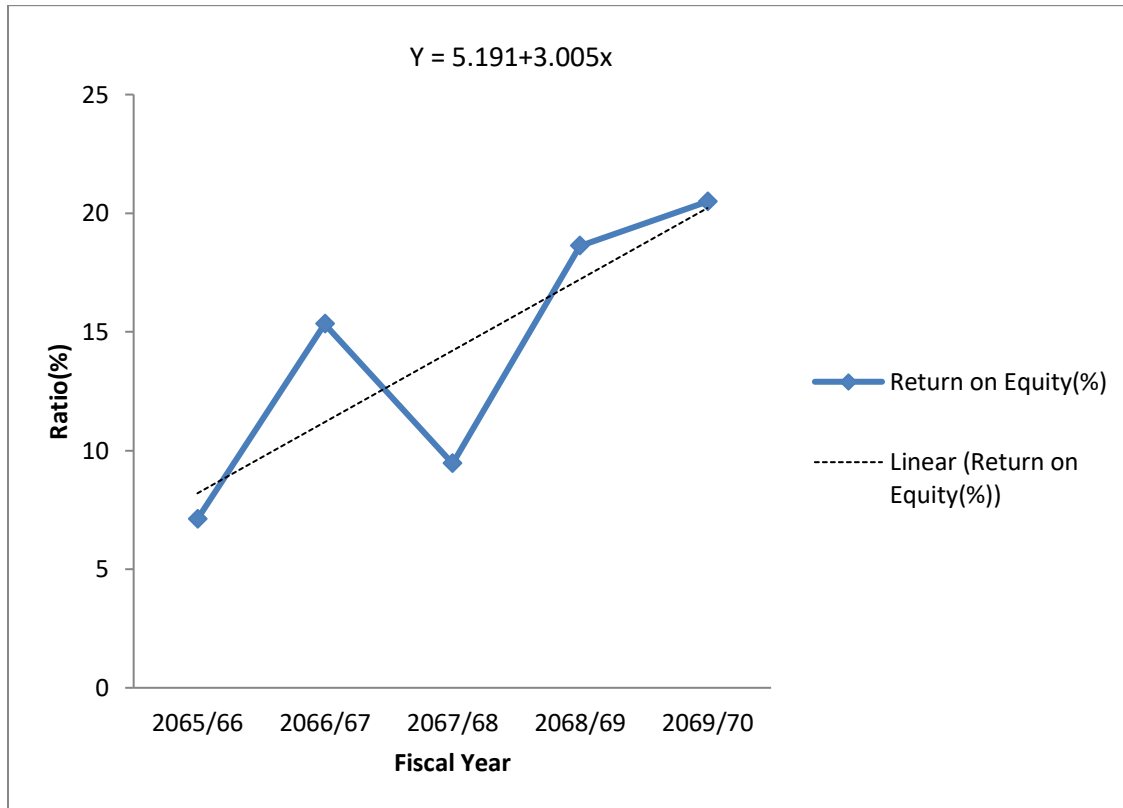


Figure 4.8 shows the observed value of ROE along with least square trend line. The slope of The trend line determined by the least square method is positive. ROE ratio of the bank is increasing trend due to increasing ratio of net profit is higher than increasing ratio of shareholder's equity. Profit of the bank is fluctuating over the study period in increasing trend.

**4.1.4.2 Return on Assets (ROA)**

ROA is primarily an indicator of managerial efficiency, it indicates how capably the management of the bank has been converting the institution's assets into net earnings. ROA determines the net income produced per unit of assets. It is a measure of profitability link to the asset size of the bank. Generally; ROA ratio should be 1% and higher is desired to the banking industry (World Bank, 1996).

**Table: 4.9**

**Return on Assets**

Amount in thousands

Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Net profit after tax(Rs)	10817.23	38432.68	24091.17	52363.81	72440.56
Total Assets(Rs)	1185936.43	1709967.24	2051634.35	2749475.93	3444098.13
Return of Assets (%)	0.91	2.2	1.17	1.9	2.1
Mean (%)	1.656				
S.D (%)	0.5187				
C.V. (%)	31.32				

Source: Annual Report, CDBL

Table 4.9 shows the ROA ratio of the CDBL during the study period. CDBL has met the benchmark of 1% in all years except in FY 2065/66. The ROA of the CDBL is minimum of 0.91% in FY 2065/66 and maximum of 2.2% in FY 2066/67. The ROA ratio of CDBL is in fluctuating trend. The mean ratio of bank is 1.656% and C.V. between them is 31.32%. The bank's mean ratio is above than 1% benchmark. In overall the trend is increasing.

**Figure: 4.9**

**Trend of Return on Asset Ratio**

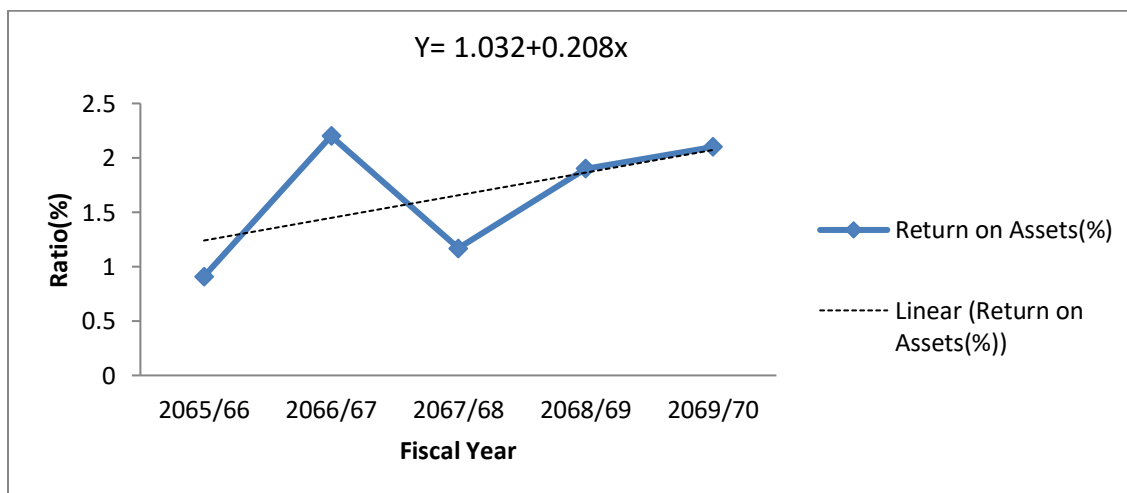


Figure 4.9 shows the observed value of ROA ratio with least square Trend line. The slope of trend line determined by the least square method is positive. It shows the upward movement of ROA. Positive slope of the trend line shows the increasing trend in return on assets ratio.

#### 4.1.4.3 Profit Margin (PM)

Profit margin shows the relationship between net income and total operating revenue. A ratio of profitability calculated as net income divided by total operating revenues. A higher profit margin indicates a more profitable bank that has better control over its costs. It shows the proportion of net income in total operating revenues. A 10% profit margin, for example, means the bank has a net income of Rs 0.10 for each rupee of revenue

**Table: 4.10**

#### **Profit Margin**

Amount in thousands

Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Net Profit After Tax(Rs)	10817.23	38432.68	24091.17	52363.81	72440.56
Total Operating Revenue(Rs)	78930.77 18	189049.6532	262703.8869	325283.0186	400914.1 574
Profit Margin (%)	13.70	20.33	9.17	16.1	18.07
Mean (%)	15.47				
S.D (%)	3.837				
C.V. (%)	24.80				

*Source: Annual Report, CDBL*

The profit margin of CDBL is 13.70% in the FY 2065/66 and highly to 20.33% in the FY 2066/67 but decrease 9.17% in the FY 2067/68 due to the decrease in net profit and increase in operating revenue then after it is in increasing trend. It reveals that the ratios are fluctuating over the study period. The mean ratio for the study period is found 15.47% and C.V. of them is 24.80%. On the basis of C.V. the ratios are variable and not consistent with the increasing trend.

**Figure: 4.10**

**Trend of Profit Margin**

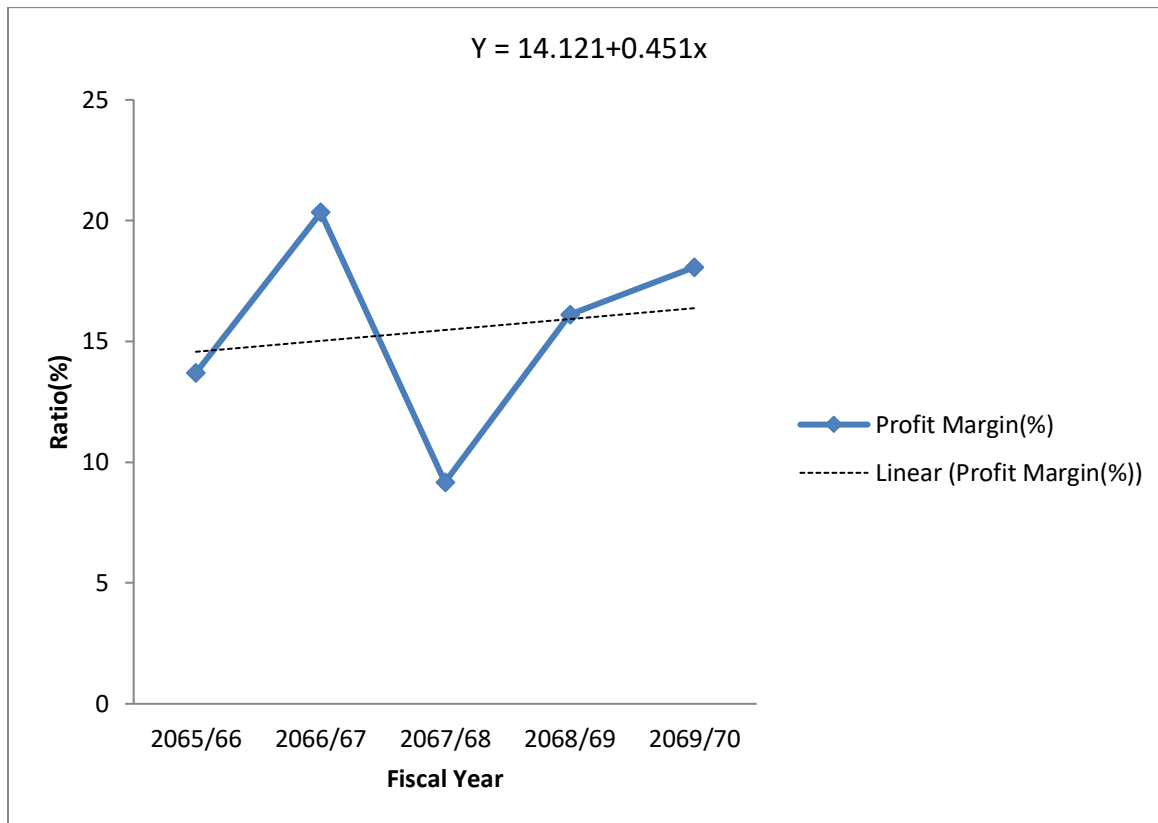


Figure 4.10 shows the observed profit margin ratio with least square trend line. It shows the upward movement of observed profit margin till the FY 2069/70. The slope of the trend line is positive and it shows increasing trend of profit margin ratio during the study period.

#### **4.1.4.4 Earning per share (EPS)**

Earnings per share is calculated by dividing net income by the number of outstanding shares of common stock. EPS provides a direct measure of the returns flowing to the bank's owner, its stockholders measure relative to the number of shares to the public. It measures the profit available to the equity holders on a per share basis that is the amount that they can get on every share held. Higher EPS indicates efficient mobilization of the owner's equity when compared between two banks.

**Table: 4.11**

**Earnings per share**

Amount in thousands

Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Net Profit After Tax (Rs)	10817.23	38432.68	24091.17	52363.81	72440.56
No. of shares	1400	2000	2200	2530	3080
Earnings per Share (Rs)	7.7	19.22	10.95	20.70	23.52
Mean (Rs)	16.42				
S.D (%)	6.042				
C.V. (%)	36.8				

*Source: Annual Report, CDBL*

The data given in Table 4.11 reveals that EPS of CDBL is in decreasing trend throughout the study period. CDBL's EPS shows fluctuating but increasing trend. The EPS of CDBL is Rs.7.7 in FY 2065/66 and highly increase to Rs.19.22 in FY 2066/67 but decrease in FY 2067/68 then after it is in increasing trend till 2069/70. The mean average of EPS is Rs.16.42 and C.V. between them is 36.8% during the study period.

**Figure: 4.11**

**Trend of Earning per share**

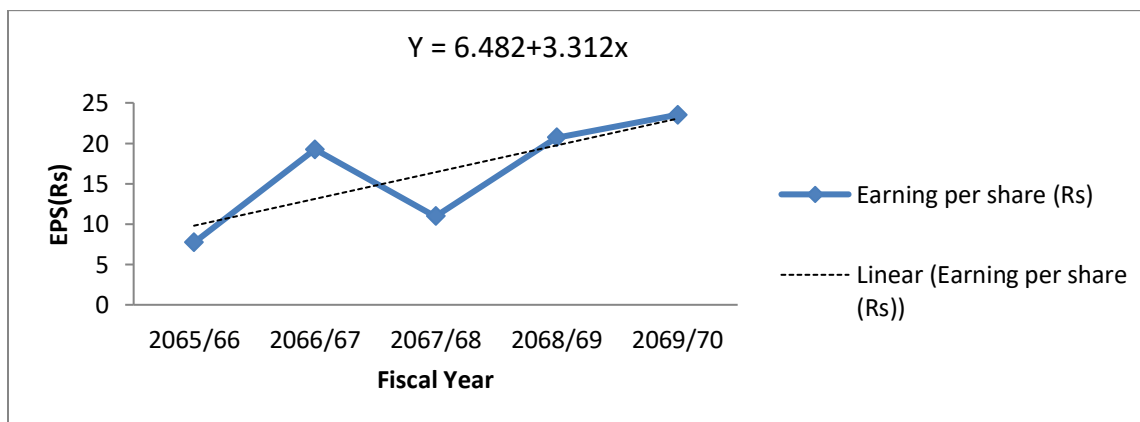


Figure 4.11 shows the observed value of earning per share along with the trend line. The slope of the trend line is positive which indicates that the trend of the EPS is increasing over the study period which is favorable to its shareholders.

#### 4.1.5 Liquidity Position

Liquidity represents the ability to fund assets and meet obligations as they become due. Liquidity is essential in all banks to compensate for expected and unexpected balance sheet fluctuation and provide funds for growth. Liquidity risk is the risk of not being able to obtain funds at a reasonable price within a reasonable time period to meet obligation as they become due. Because liquidity is critical to the ongoing viability of any bank, liquidity management is among most important activities that a bank conducts.

##### 4.1.5.1 Total liquid Fund to Total Deposit Ratio

Liquid fund to total deposit ratio is computed by dividing total liquid fund to total deposits. It measures the percentage of liquid fund with the bank to meet short term obligation. Cash in hand, balance with NRB, balance with banks/FIs, foreign currency in hand, balance held abroad, calls deposits are included in liquid fund. Higher ratio implies better liquidity position and lower ratio implies inefficient liquidity position of the bank.

**Table: 4.12**

#### **Total liquid Fund to Total Deposit Ratio**

Amount in thousands

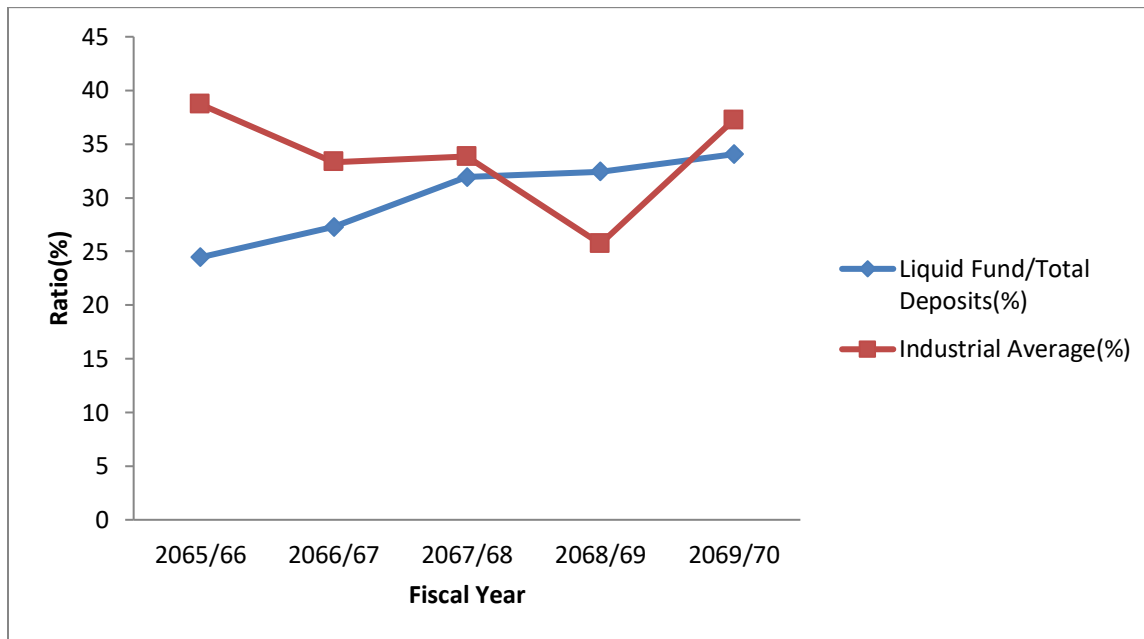
Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Liquid Fund (Rs)	250677.07	388967.60	545726.31	758895.99	1011782.13
Total Deposits(Rs)	1025286.91	1426127.60	1708590.96	2340153.54	2970750.19
Liquid Fund to Deposits Ratio (%)	24.45	27.27	31.94	32.43	34.06
Industrial Average (%)	38.71	33.33	33.83	25.71	37.22
Difference from Industrial Average (%)	-14.26	-6.06	-1.89	6.72	-3.16

*Source: Annual Report, CDBL, Banking and Financial Statistics, No.58 July2012*

Table 4.12 shows that the liquid funds to total deposit ratio of CDBL during the period of FY 2065/66 to 2069/70. The ratio are increasing trend from FY 2065/66 till 2069/70. But the liquid fund to total deposit ratio of CDBL are lower than industrial average during the study period except FY 2068/69. So, the difference with industrial average in negative for all four fiscal year except 2068/69 during the study period.

Figure: 4.12

Liquid Funds to Total Deposits Ratio with Industrial Average



In the above figure 4.12, the total liquid fund to total deposit curve of CDBL is under the industry average in all observed fiscal year except FY 2068/69. It shows that, the liquidity position of CDBL is not better than industrial average ratio though total liquid fund to total deposits ratio are in increasing trend.

4.1.5.2 NRB Balance to Total Deposit Ratio

NRB balance to total deposit is the ratio of cash balance with NRB to total deposits. It shows whether the bank is maintaining the appropriate balance at NRB or not. To ensure adequate liquidity in the banks, to meet the depositors demand for cash at any time, to inject the confidence in depositors regarding the safety of their deposited funds. NRB has put the directives to maintain certain percent of total deposits in NRB by the development banks.

Table: 4.13

NRB Balance to Total Deposit Ratio

Amount in thousands

Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Balance at NRB(Rs)	19384	47796	80887	124711	160872
Total Deposits(Rs)	1025286.91	1426127.60	1708590.96	2340153.54	2970750.19

NRB Balance to Total Deposit (%)	1.89	3.35	4.73	5.33	5.42
NRB Standard (%)	5.5	5.5	5.5	5	5.5

Source: Annual Report, CDBL, Unified Directives of NRB

Table 4.13 shows NRB balance to total deposit ratio of CDBL. The table shows that, CDBL has not maintaining balance with NRB except FY 2068/69. The balance is under the NRB standard in each fiscal year except FY 2068/69 and 2069/70 over the study period. In FY 2069/70 and FY 2067/68 the balance is nearly to the NRB Standard. The balance ratio is in increasing trend.

Figure: 4.13

#### NRB Balance to Total Deposit Ratio with NRB Standard

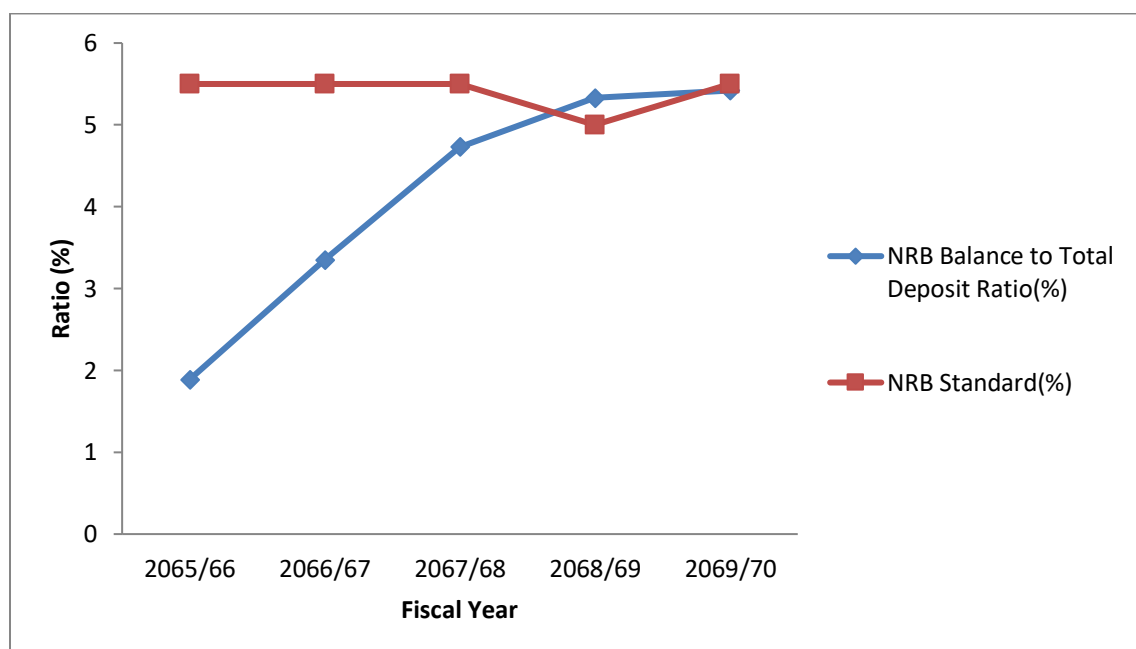


Figure 4.13 shows the NRB balance to total deposit ratio with compare to NRB standard over the study period. As shown in figure 4.13 the NRB balance to total deposit ratio curve of CDBL is below than the NRB standard curve in each year except FY2068/69 and 2069/70over the study period. In FY 2069/70 bank is able to maintain NRB standard.

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

This ratio shows the percentage of total deposits held as cash in vault by total deposits .Cash and foreign currencies in hand are includes as cash in vault. Total deposits means current, saving and fixed deposits and certificates of deposits. Lower ratio indicates that the bank might face a liquidity crunch while paying its obligation; whereas high ratio indicates that the bank has

been keeping idle funds and not deploying them properly. So, a bank should always maintain the sufficient and appropriate cash reserve.

**Table: 4.14**

**Cash in vault to Total Deposit Ratio**

Amount in thousands

Fiscal Year	2065/66	2066/67	2067/68	2068/69	2069/70
Cash in Vault(Rs)	23075	27985	46282	48248	65524
Total Deposits(Rs)	1025286.91	1426127.6	1708590.96	2340153.54	2970750.19
Cash in vault to Total Deposit Ratio (%)	2.25	1.96	2.70	2.06	2.21
Industrial Average (%)	2.34	2.73	2.51	2.54	2.86
Difference from Industrial Average (%)	-0.09	-0.77	0.19	-0.48	-0.65

*Source: Annual Report, CDBL, Banking and Financial Statistics, No.58 July2012*

As shown in the table, CDBL cash in vault to total deposit ratio is approximate with industrial average. The cash in vault to total deposit ratios of the bank are fluctuating trend. The highest ratio is 2.70% in FY 2067/68 and lowest ratio 1.96% in FY 2066/67. The differences from industrial average ratios are negative in four years except FY 2067/68.

Figure: 4.14

Cash in vault to Total Deposit Ratio with Industrial Average

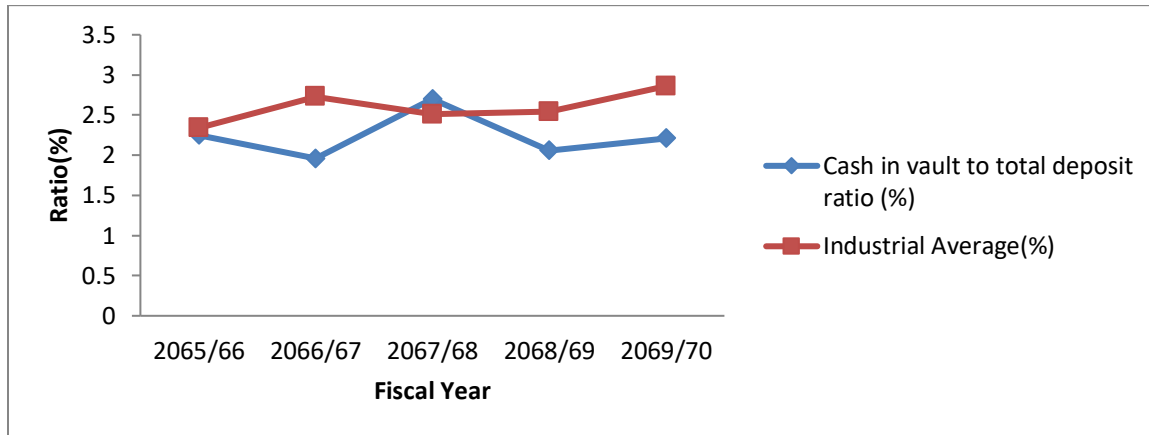


Figure 4.14 exhibits the observed cash in vault to total deposit ratio of the CDBL with compare to industrial average ratio within the study period of last five years. The curve of cash in vault to total deposit ratio is in fluctuating trend and approximate with industrial average. This indicates that bank's capacity to keep cash position is satisfactory but not going better during the observed fiscal years.

4.1.6 Sensitivity to Market Risk

These parameters refer to risk conditions in the market such as exchange risk, interest rate risk etc which could adversely affect earnings or capital of the bank. Banking business is open to risks from movement in competitors prices, competitors cost of fund, foreign exchange rates and interest rates all of which need to be managed. Although Nepalese Banking sector is exposed to interest rate risk and the exchange rate risk, interest rate is the focus of this study. It is primary risk in most of the banks in Nepal.

This study is worked with duration gap model which is simple method than other dollar gap and simulation analysis. Duration gap model simply measures the net quality of assets or liabilities re-pricing within a given period to estimate the likely impact changes in interest rates will have in earnings. According to NRB, duration gap analysis model adapted for minimization of liquidity risk shall also be adapted in respect of minimization of IRR. Banks shall classify the time interval of the assets and liabilities in the basis of maturity period of 0-90 days, 91-180 days, 181-270days and 271-365 days, over the 365 days. For changing probability of estimate interest rate is normally one percent can be determined. The effect on the percent changed in NII is calculated by multiplying the change in interest rate  $\Delta R_i$  in the  $i$ th maturity bucket annualized with cumulative GAP.

If the interest rate rise on RSAs and RSLs ,the positive CGAP(RSA>RSL)would project increase in the expected annual NII .However if interest rate fall when CGAP is positive, NII will fall .In general, when the CGAP or the GAP ratio is positive (RSA>RSL),the change in NII is positive related to the change in interest rates. Thus banks would want to keep CGAP positively when interest rate expected to rise. Conversely, when CGAP is negative the change in NII is negatively related to the change in interest rates. Thus banks are expected to keep CGAP negative when interest rates are expected to fall. Gap analysis of RSAs and RSLs of CDBL for the period of fiscal year 2065 to 2070 is made as shown in table 4.15 (a, b, c, d, e) based on maturity time.

**Table: 4.15(A)**

**GAP Analysis of 2065/66 of CDBL**

Amount in Thousands

Days	1-90	91-180	181-270	271-365	>365	Total
RSA(Rs.)	432700	24900	33100	33200	539900	1063800
RSL(Rs.)	158100	217200	251100	244100	154100	1024600
GAPi(RSA-RSL)	274600	(192300)	(218000)	(210900)	385800	39200
CGAPi(Rs.)	274600	82300	(135700)	(346600)	39200	
RSA/RSL	2.74	0.11	0.13	0.14	3.50	1.04
CGAPi Ratio (CGAP/Total RSA)%	25.81	7.74	NA	NA	3.68	
$\Delta R\%$				1%	1%	
$\Delta NII(CGAP \times \Delta R\%)$				(3466)	392	

Source: Annual Reports, CDBL

**Table: 4.15(B)**

**GAP Analysis of 2066/67 of CDBL**

Amount in Thousands

Days	1-90	91-180	181-270	271-365	>365	Total
RSA(Rs.)	683136	126847	71592	64809	719885	1666269
RSL(Rs.)	595687	342031	170899	250138	116084	1474839
GAPi(RSA-RSL)	87449	(215184)	(99307)	(185329)	603801	191430
CGAPi(Rs.)	87449	(127735)	(227042)	(412371)	191430	
RSA/RSL	1.15	0.37	0.42	0.26	6.20	1.13

CGAPi Ratio (CGAP/Total RSA)%	5.25	NA	NA	NA	11.49	
ΔR%				1%	1%	
ΔNII(CGAPxΔR%)				(4123.71)	1914.30	

Source: Annual Reports, CDBL

**Table: 4.15(C)**

**GAP Analysis of 2067/68 of CDBL**

Amount in Thousands

Days	1-90	91-180	181-270	271-365	>365	Total
RSA(Rs.)	692975	130198	91818	80176	1070035	2065202
RSL(Rs.)	411716	260698	187241	690975	241655	1792285
GAPi(RSA-RSL)	281259	(130500)	(95423)	(610799)	828380	272917
CGAPi(Rs.)	281259	150759	55336	(555463)	272917	
RSA/RSL	1.68	0.50	0.49	0.12	4.43	1.15
CGAPi Ratio (CGAP/Total RSA)%	13.62	7.30	2.68	NA	13.22	
ΔR%				1%	1%	
ΔNII(CGAPxΔR%)				(5554.63)	2729.17	

Source: Annual Reports, CDBL

**Table: 4.15(D)**

**GAP Analysis of 2068/69 of CDBL**

Amount in Thousands

Days	1-90	91-180	181-270	271-365	>365	Total
RSA(Rs.)	925515.17	140531.76	153208.01	185981.90	1318786.21	2724023.05
RSL(Rs.)	501109.45	415119.75	255172.85	933746.19	309805.86	2414954.10
GAPi(RSA-RSL)	424405.72	(274587.99)	(101964.84)	(747764.29)	1008980.35	309068.95
CGAPi(Rs.)	424405.72	149817.73	47852.89	(699911.40)	309068.95	
RSA/RSL	1.85	0.34	0.6	0.199	4.26	1.13

CGAPi Ratio (CGAP/Total RSA)%	15.58	5.50	1.76	NA	11.35	
ΔR%				1%	1%	
ΔNII(CGAPxΔR%)				(6999.11)	3090.69	

Source: Annual Reports, CDBL

**Table: 4.15(E)**

**GAP Analysis of 2069/70 of CDBL**

Amount in Thousands

Days	1-90	91-180	181-270	271-365	>365	Total
RSA(Rs.)	1244343.11	180169.64	217856.07	294990.78	1647158.07	3584517.67
RSL(Rs.)	910747.17	499136.44	824406.35	362504.90	663841.43	3260636.29
GAPi(RSA-RSL)	333595.94	(318966.80)	(606550.28)	(67514.12)	983316.64	323881.38
CGAPi(Rs.)	333595.94	14629.14	(591921.14)	(659435.26)	323881.38	
RSA/RSL	1.37	0.36	0.26	0.81	2.48	1.09
CGAPi Ratio (CGAP/Total RSA)%	9.3	0.41	NA	NA	9.04	
ΔR%				1%	1%	
ΔNII(CGAPxΔR%)				(6594.35)	3238.81	

Source: Annual Reports, CDBL

The period from 2065/66 to 2069/70 is taken for review of the sensitivity of market risk of CDBL. The net financial assets (RSA-RSL) are re-pricing in the short-term maturity bucket and long term maturity bucket ranging for five years are mentioned here. The short term maturity bucket ranging from 1-90 days found positive in all five years by Rs.274600, Rs.87449, Rs.281259, Rs.424405.72 and Rs.333595.94 respectively. Similarly maturity bucket ranging from 91- 180 days to 271-365 days found negative in all five years. The long term maturity bucket (>365 days) found positive in all five years by Rs.385800, Rs.603801, Rs.828380, Rs.1008980.35 and Rs.983316.64 respectively. The cumulative gap, CGAP of the RSAs and RSLs representing in the short term maturity bucket (0-90) days is positive, (91-180) positive, (181-270) negative, (271-365) negative in FY 2065/66 and FY 2069/70..In 2066/67 short term maturity bucket (0-90) days is positive and other all period's is negative. In FY 2067/68 and FY 2068/69 short term maturity bucket is positive in all periods except (271-365). The CGAP or the interest rate

sensitivity ratio to the total earning assets over the short term horizon i.e. up to one FY was highest with 25.81% in FY 2065/66 and lowest with 1.76% in 2068/69. The cumulative gap, CGAP of the RSAs and RSLs representing long term maturity bucket (>365) days is positive in all fiscal year. The CGAP ratio to the earning assets over the long term horizon was highest with 13.22% in FY 2067/68 and lowest with 3.68 % on FY 2065/66.

#### **4.2 Major Findings**

The major findings of the study on financial performance analysis of City Development Bank Ltd. in the framework of CAMELS are as follows:

- In the past five years, the core capital adequacy ratio of CDBL is distributed as a maximum ratio of 18.08% in FY 2066/67 and minimum of 12.31% in FY 2069/70. The core capital adequacy ratio of the bank is above the NRB standard in all fiscal years.
- The supplementary capital adequacy ratio of CDBL is distributed as a minimum of 0.83% in FY 2065/66 and maximum of 1% in FY 2067/68. CDBL has maintained the supplementary capital adequacy ratio as per the NRB standard during the study period.
- Capital adequacy ratio of CDBL was maximum in FY 2066/67 with 18.95% and minimum in FY 2069/70 with 13.20%. As compared to the NRB standards, capital adequacy ratios were excess in all the fiscal years. It showed that the bank had maintained an adequate capital adequacy ratio in each year of the study period.
- The non-performing loan ratio of CDBL was in decreasing trend in two fiscal years but there was 0% in three starting fiscal years FY 2065/66 to FY 2067/68 during the study period. The lowest ratio is 0.37% in FY 2069/70 and highest ratio is 0.56% in FY 2068/69. It is found that the NPL ratio of the bank is below 5%. It shows efficient credit management of CDBL. It indicates that the bank has low credit risk. It reflects the good performance of the bank in mobilizing loan and advances.
- The loan loss ratio of CDBL has fluctuating but increasing trend over the five fiscal years. The ratio was minimum of 1% in FY 2066/67 and maximum of 1.20% in FY 2069/70. The mean ratio was 1.07% and C.V. between them was 6.76%. On the basis of C.V., it is found that the ratios were less variable and more consistent throughout the study period.
- The total operating expenses to total operating income ratio of CDBL was distributed as a minimum ratio of 68.45% in FY 2066/67 and maximum ratio 80.75% in FY 2067/68. The decreasing trend of ratio indicates decreasing expenses with respect to income.

- The earning per employee was in increasing trend. Per employee higher income was Rs.1334.56 in FY 2069/70 and lower income was Rs.447.72 in FY 2065/66. The average earning per employee is Rs. 941684.
- The Return on Equity ratio was in increasing trend with the highest ratio 20.49% in FY 2069/70 and the lowest ratio 7.11% in FY 2065/66. The mean ratio was 14.21% and C.V. between them was 36.34%. On the basis of C.V., it can be concluded that the ratio were variable and non consistent with the increasing trend.
- The ROA ratios were in increasing trend. The ratio was maximum in FY 2066/67 with 2.2% and minimum in FY 2065/66 with 0.91%. The mean ratio of CDBL was 1.66 which is above than 1% benchmark and C.V. between them was 31.32%. On the basis of C.V., it can be concluded that the ratios were variable and non consistent.
- The Profit Margin of CDBL was minimum in FY 2067/68 with 9.17% and maximum in FY 2066/67 with 20.33%. The profit margin ratio was in increasing trend which indicates more profitable banks that has better control over its costs. The mean ratio was 15.47% and C.V. between them was 24.79% which is variable and non consistent with the increasing trend.
- EPS of CDBL was in increasing trend which is favorable to its shareholders. The EPS of the bank was minimum of Rs.7.7 in FY 2065/66 and maximum of Rs.23.52 in FY 2069/70. The mean average on EPS was Rs.16.42 and C.V. between them was 36.8% which showed variable and not consistent during the study period.
- The liquid fund to total deposit ratio of CDBL was maximum in FY 2069/70 with 34.06% and minimum in FY 2065/66 with 24.45%. It proved that the ratios were in increasing trend but the ratios were lower than industrial average it showed that bank's liquidity position is not better than industrial average.
- The NRB balance to total deposit ratio of CDBL was maximum in FY 2069/70 with 5.42% and minimum in FY 2065/66 with 1.89%. The balance ratios were in increasing trend. Balance at NRB had increased in every fiscal year. As compared with NRB standard the ratio were under the NRB standard in two fiscal years.
- The cash in vault to total deposit ratio of CDBL was maximum in FY 2067/68 with 2.70% and minimum in FY 2066/67 with 1.96%. The ratios were in fluctuating trend. As compared to industrial average, the ratios were approximate with the industrial average. It indicates that bank's capacity to keep cash position is satisfactory.

- FY 2065/66 to 2069/70, net financial assets (RSA-RSL) re-pricing in the short term maturity bucket ranging from 0-90 days to 271-365 days is found negative and positive both in different periods. In the long-term maturity bucket (>365days) the gap is positive in all fiscal years. The cumulative gap, CGAP of RSA and RSL re-pricing in the short term maturity bucket (0-365days) in all FYs is found negative and positive both in different periods. The interest rate sensitivity is higher for long-term maturity than short term maturity bucket.

## CHAPTER -V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This unit has three sections the first section provides a brief summary of the study. Second section draws conclusions and third section offers recommendations.

#### 5.1 Summary

Banks are those financial institutions that offer widest range of financial services especially credit, savings and payments services and perform the widest range of financial functions of any firm in the economy. Bank faces many pressures today from changing regulation, intensifying competition from non-bank financial services firms, the spreading internationalization of banking markets and continuing innovation in technology and automation. This has forced banks to assess their performance overtime and relative to other banks. There are different approaches used worldwide to assess bank performance. CAMELS framework is one of the common method for evaluating financial performance of the bank.

The study was conducted as academic requirement of master of business studies on topic of “Financial Performance Analysis of City Development Bank Limited in the framework of CAMELS”. The study aims to analyze financial performance of City Development Bank Limited in the framework of CAMELS over the five years period from FY 2065/66 to FY 2069/70. Descriptive and analytical research design has been chosen for this study. CDBL was selected as a sample bank among the entire 90 development banks. All the study was based on secondary data. Annual reports, NRB Directives and Banking and financial statistics were used as the major sources of data. Various financial and statistics were used in this study to get the meaningful result and to meet the research objectives.

CAMEL is a common technique of evaluating the financial performance of financial institutions which consists of individual assessments of five core aspects of a bank financial condition and performance: Capital Adequacy, Assts Quality, Management Quality, Earning Quality and Liquidity. In 1997, the rating became CAMELS with the addition of a market sensitivity rating. These six individual factors are the typically evaluated on a rating scale. The CAMELS rating ranges from 1 to 5, lower rating representing a better and well managed firm. It was originally used by Federal Reserve Bank, Federal Deposit Insurance Corporation (FDIC) and the comptroller of the currency. In Nepalese context, supervision department of NRB is using CAMELS rating to find out financial health of banks.

Various materials relating to the performance evaluation were reviewed in order to build up the conceptual foundation and reach to the clear destination of research. During the research the areas that formed part of the conceptual review were: concept of development bank, functions of development bank, concept of financial performance analysis, types of financial performance analysis, components of CAMELS with NRB Directives, New Basel Capital Accord. Besides this, review of journal, articles and review of dissertations were carried out under the research review.

The analysis had been made to compare the bank's ratio with NRB standard, trend of ratios and industrial average. The core capital adequacy ratio, the supplementary capital adequacy ratio and capital adequacy ratios conclude that the company is running with adequate capital. The non performing loan ratios were below the standard so it reflected the good performance of the bank in mobilizing loan and advances. The loan loss ratio of the CDBL is not bad but in increasing trend. Total operating expenses to total operating income ratios were in decreasing trend which indicates decreasing expenses with respect to income where as earning per employee ratios were in increasing trend which is good sign on measure management quality. The earning qualities ratios like ROE, ROA, EPS and PM ratios were in increasing trend. The liquid fund to total deposit ratios were in increasing trend but below than industrial average. NRB balance to total deposit ratios of the bank were in increasing trend but under the NRB standard in two fiscal years over the study period and cash in vault to total deposit ratios were approximate with industrial average throughout the study period. It shows that the liquidity position of the bank in overall is not sound. FY 2065/66 to 2069/70, net financial assets (RSA-RSL) re-pricing in the short term maturity bucket ranging from 0-90 days to 271-365 days is found negative and positive both in different periods. In the long-term maturity bucket (>365days) the gap is positive in all fiscal years. The cumulative gap, CGAP of RSA and RSL re-pricing in the short term maturity bucket (0-365days) in all FYs is found negative and positive both in different periods. The interest rate sensitivity is higher for long-term maturity than short term maturity bucket.

## **5.2 Conclusion**

Conclusions of the study are summarized as follows:

- Core capital adequacy ratio of CDBL was above than the NRB standard. In this point of view CDBL was financially sound and strong. It proved that the bank had properly maintained its internal sources or core capital.
- CDBL had maintained the supplementary capital adequacy ratios as per the NRB standard during the study period. It indicted that bank was running with adequate capital in all fiscal years.

- As compared to the NRB standards, Capital adequacy ratios of CDBL were excess in all the fiscal years. It showed that bank had maintained an adequate capital adequacy ratio in each year of the study period.
- The non performing loan to total loan and advances ratios of CDBL showed that CDBL was strong in non-performing loan. The NPL ratios were below the international standard i.e.5% to 8%.It can therefore, concluded that CDBL had placed efficient credit management and recovery efforts.
- The increasing trend of loan loss ratios indicates that the quality of loans decreasing year by year. It seems that amount of non-performing loans and possibility of default in future is increasing.
- The total operating expenses to total operating income ratios were in fluctuating but decreasing trend. It means the expenses are decreasing with respect to income. This shows that the management efficiencies are increasing.
- The increasing trend of earning per employee showed that the operating profit has increased when staff increased.
- The return on equity figure and its increasing trend shows that the return flowing to the bank's shareholders is adequate.
- The return on assets ratio of the CDBL was in increasing trend with some fluctuating during the study period and benchmark of 1% was met by bank in all fiscal years except 2065/66. The increasing ROA shows that capacity of management to convert the bank's assets into earning is at satisfactory level.
- The profit margin ratio of CDBL was in increasing trend which indicates more profitable banks that has better control over its costs.
- EPS of CDBL was in increasing trend which shows that the return flowing to the banks owners is adequate.
- The liquid funds to total deposit ratio is below the industrial average ratio. This shows that CDBL has not sufficient liquid fund.
- The NRB balance to total deposit ratio is below than the NRB standard except fiscal year 2068/69 and 2069/70 during the study period. This shows that the CDBL is not maintain sufficient amount of balance in NRB in two Fiscal years.

- The cash in vault ratio to total deposit ratio is approximate with the industrial average. This shows that the banks capacity to keep cash position is satisfactory.
- The sensitivity of net financial assets in a long maturity bucket is high. Therefore sensitivity of interest rate risk changes into the short term maturity bucket. Conversely, the CDBL has not able to match the risk sensitivity liabilities in long term maturity bucket so interest rate changes has affect on them.

### 5.3 Recommendations

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

- Capital adequacy ratios of the CDBL were strong and above the NRB standards. So, it can be recommended that the bank should continue to maintain stable capital adequacy ratios for the financial sustainability.
- The non-performing loan ratio of CDBL is in the boundary of industrial average, which is better for CDBL. It showed the good performance of bank in mobilizing loan and advances and the bank has very low credit risk. So, it can be recommended that the bank should continue to maintain non-performing loan.
- The loan loss provision to total loan and advances is not bad but in increasing trend in ending year of the study period. So, the CDBL needs to give attention to lower the proportion of loan loss provision by increasing the quality of assets by strengthening the credit appraisal and follow up measure. The loan loss provision affect directly to the net profit. If loan loss provision is less net profit will be high or vice versa .So, the bank is suggested to reduce its loan loss provision ratios.
- The total operating expenses to total operating income ratios were in fluctuating but decreasing trend. It means the expenses are decreasing with respect to income. So, it can be recommended that the bank should continue to control its expenses.
- The increasing trend of earning per employee showed that the operating profit has increased when staff increased. So, it can be recommended that the bank should continue to mobilize its staff.
- The earning qualities ratios like ROE, ROA, EPS and PM ratios were in increasing trend. Without profit no firm can survive and grow. Thus, the bank is recommended continue to

increase its yield as its net profit to gain the trust and confidence of the equity holders and other stakeholders.

- The liquidity ratios of CDBL were not within but nearly to the boundary of industrial average i.e. liquid fund to total deposits ratio and NRB balance to total deposits ratio. It indicates some negligence of CDBL to NRB directives. So, it is recommended to maintain its all liquidity ratios within the industrial average and NRB standard.
- The CDBL's long term net financial assets are highly sensitive to interest rate risk than short. As the term earning assets are high. Since positive CGAPi ratio is beneficial when interest rates expected to rise and conversely negative CGAPi ratio beneficial when interest rates expected to fall. So, the CDBL should minimize the mismatch of long term risk sensitive assets in order to minimize sensitivity to prevailing falling interest rates scenario.

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### **Related Websites**

<http://www.bis.org>

<http://www.citybanknepal.com.np>

<http://www.google.com>

<http://www.geocities.com>

<http://www.nrb.org.com>

<http://www.wikipedia.org.com>

## APPENDIX I

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

Year(X)	LLR(Y)	X <sup>2</sup>	XY
1	1.01	1	1.01
2	1	4	2
3	1.05	9	3.15
4	1.09	16	4.36
5	1.20	25	6
<b>∑X = 15</b>	<b>∑Y=5.35</b>	<b>∑X<sup>2</sup>= 55</b>	<b>∑XY=16.52</b>

$$b = \frac{N \cdot \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} = \frac{5 \times 16.52 - 15 \times 5.35}{5 \times 55 - (15)^2} = \frac{2.35}{50} = 0.047$$

$$a = \frac{\sum Y - b \cdot \sum X}{N} = \frac{5.35 - 0.047 \times 15}{5} = 0.929$$

$$Y = 0.929 + 0.047x$$

## APPENDIX II

Calculation linear line of operating expenses ratio by least square method.

Year(X)	OER(Y)	X <sup>2</sup>	XY
1	78.45	1	78.45
2	68.45	4	136.9
3	80.75	9	242.25
4	78.57	16	314.28
5	72.04	25	360.2
<b>∑X = 15</b>	<b>∑Y=378.26</b>	<b>∑X<sup>2</sup>= 55</b>	<b>∑XY=1132.08</b>

$$b = \frac{N \cdot \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} = \frac{5 \times 1132.08 - 15 \times 378.26}{5 \times 55 - (15)^2} = \frac{-13.5}{50} = -0.27$$

$$a = \frac{\sum Y - b \cdot \sum X}{N} = \frac{378.26 + 0.27 \times 15}{5} = 76.462$$

$$Y = 76.462 - 0.27x$$

### APPENDIX III

Calculation linear line of earning per employee ratio by least square method.

Year(X)	EPE(Y)	X <sup>2</sup>	XY
1	447.72	1	447.72
2	1242.55	4	2485.1
3	842.69	9	2528.07
4	840.90	16	3363.6
5	1334.56	25	6672.8
<b>∑X = 15</b>	<b>∑Y= 4708.42</b>	<b>∑X<sup>2</sup>= 55</b>	<b>∑XY=15497.29</b>

$$b = \frac{N \cdot \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} = \frac{5 \times 15497.29 - 15 \times 4708.42}{5 \times 55 - (15)^2} = \frac{6860.15}{50} = 137.203$$

$$a = \frac{\sum Y - b \cdot \sum X}{N} = \frac{4708.42 - 137.203 \times 15}{5} = 530.075$$

$$Y = 530.075 + 137.203x$$

### APPENDIX IV

Calculation linear line of ROE ratio by least square method.

Year(X)	ROE(Y)	X <sup>2</sup>	XY
1	7.11	1	7.11
2	15.34	4	30.68
3	9.46	9	28.38
4	18.63	16	74.52
5	20.49	25	102.45
<b>∑X = 15</b>	<b>∑Y=71.03</b>	<b>∑X<sup>2</sup>= 55</b>	<b>∑XY=243.14</b>

$$b = \frac{N \cdot \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} = \frac{5 \times 243.14 - 15 \times 71.03}{5 \times 55 - (15)^2} = \frac{150.25}{50} = 3.005$$

$$a = \frac{\sum Y - b \cdot \sum X}{N} = \frac{71.03 - 3.005 \times 15}{5} = 5.191$$

$$Y = 5.191 + 3.005x$$

## APPENDIX V

Calculation linear line of ROA ratio by least square method.

Year(X)	ROA(Y)	X <sup>2</sup>	XY
1	0.91	1	0.91
2	2.2	4	4.4
3	1.17	9	3.51
4	1.9	16	7.6
5	2.1	25	10.5
<b>∑X = 15</b>	<b>∑Y=8.28</b>	<b>∑X<sup>2</sup>= 55</b>	<b>∑XY=26.92</b>

$$b = \frac{N \cdot \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} = \frac{5 \times 26.92 - 15 \times 8.28}{5 \times 55 - (15)^2} = \frac{10.4}{50} = 0.208$$

$$a = \frac{\sum Y - b \cdot \sum X}{N} = \frac{8.28 - 0.208 \times 15}{5} = 1.032$$

$$Y = 1.032 + 0.208x$$

## APPENDIX VI

Calculation linear line of profit margin ratio by least square method.

Year(X)	PM(Y)	X <sup>2</sup>	XY
1	13.70	1	13.70
2	20.33	4	40.66
3	9.17	9	27.51
4	16.1	16	64.4
5	18.07	25	90.35
<b>∑X = 15</b>	<b>∑Y=77.37</b>	<b>∑X<sup>2</sup>= 55</b>	<b>∑XY=236.62</b>

$$b = \frac{N \cdot \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} = \frac{5 \times 236.62 - 15 \times 77.37}{5 \times 55 - (15)^2} = \frac{22.55}{50} = 0.451$$

$$a = \frac{\sum Y - b \cdot \sum X}{N} = \frac{77.37 - 0.451 \times 15}{5} = 14.121$$

$$Y = 14.121 + 0.451x$$

## APPENDIX VII

Calculation linear line of EPS by least square method.

Year(X)	EPS(Y)	X <sup>2</sup>	XY
1	7.7	1	7.7
2	19.22	4	38.44
3	10.95	9	32.85
4	20.70	16	82.8
5	23.52	25	117.6
<b>∑X = 15</b>	<b>∑Y=82.09</b>	<b>∑X<sup>2</sup>= 55</b>	<b>∑XY=279.39</b>

$$b = \frac{N \cdot \sum XY - \sum X \cdot \sum Y}{N \sum X^2 - (\sum X)^2} = \frac{5 \times 279.39 - 15 \times 82.09}{5 \times 55 - (15)^2} = \frac{165.6}{50} = 3.312$$

$$a = \frac{\sum Y - b \cdot \sum X}{N} = \frac{82.09 - 3.312 \times 15}{5} = 6.482$$

$$Y = 6.482 + 3.312x$$

## APPENDIX VIII

### Operating Income of CDBL

Particulars	2065/66	2066/67	2067/68	2068/69	2069/70
Interest Income	67638862.80	173984742.83	244582688.65	302711177.12	369135697.70
Commission & Discount	2006380.98	4703066.53	7326825.86	8469296.52	11431676.73
Other Operating Income	9265975.75	10344957.00	10783289.03	14088295.00	20339583.00
Exchange Fluctuation Income	19552.27	16886.90	11083.45	14250.00	7200.00
<b>Total</b>	<b>78930771.8</b>	<b>189049653.2</b>	<b>262703886.9</b>	<b>325283018.6</b>	<b>400914157.4</b>

## APPENDIX IX

### Operating Expenses of CDBL

Particulars	2065/66	2066/67	2067/68	2068/69	2069/70
Interest Expenses	41924859.45	98765451.63	150232542.09	199402449.40	223750370.84
Staff Expenses	4011544.25	8278510.12	11310988.12	15074183.10	22245944.19
Other Operating Expenses	10912566.65	19129593.66	21407334.76	26711888.29	30384359.99
Provision for possible loss	5068615.80	3233493.76	29191799.22	14390931.56	12430533.84
<b>Total</b>	<b>61917586.15</b>	<b>129407049.2</b>	<b>212142664.1</b>	<b>255579452.4</b>	<b>288811208.8</b>

## APPENDIX X

Calculation of mean, standard deviation and C.V. of ROA and so on.

$$(\bar{X}) = \frac{\sum X}{N} = \frac{8.28}{5} = 1.656$$

$$S.D. (\sigma) = \sqrt{\left(\frac{\sum X^2}{n}\right) - \left(\frac{\sum X}{n}\right)^2} = \sqrt{\left(\frac{15.057}{5}\right) - \left(\frac{8.28}{5}\right)^2} = \sqrt{3.0114 - 2.7423} =$$

0.5187%

$$= \frac{0.5187}{1.656} \times$$

### APPENDIX XI

Calculation

ROA(X)	X <sup>2</sup>
0.91	0.8281
2.2	4.84
1.17	1.3689
1.9	3.61
2.1	4.41
<b>∑X= 8.28</b>	<b>∑X<sup>2</sup>= 15.057</b>

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

$$100 = 31.32\%$$

of Total

Liquid Fund.

Amount in Thousands

Liquid Funds item	2065/66	2066/67	2067/68	2068/69	2069/70
Cash in Hand	22845	27778	46147	48140	65514
Balance with	19384	47796	80887	124711	160872

NRB					
Balance with Domestic Bank	208219	313187	418558	585937	785386
Foreign currency in hand	229.07	206.6	134.312	107.99	10.13
Balance Held in Abroad					
Calls deposits					
Total Liquid fund	250677.07	388967.60	545726.31	758895.99	1011782.13