

**CREDIT MANAGEMENT OF NEPALESE
COMMERCIAL BANKS**



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RECOMMENDATION

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DECLARATION

I hereby declare that the work reported in this thesis entitled “Credit Management of Nepalese Commercial Banks submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Master Degree in Business Studies (M.B.S.) under the supervision of Prof. Dr. Upendra Koiral of Central Department of Management, University Campus Kirtipur.

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Deepak Panthi
Researcher

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ABBREVIATIONS

A/C	=	Account
AD	=	After Death
ATM	=	Automated Teller Machine
BS	=	Bikarm Sambat
Ed	=	Edition
FY	=	Fiscal Year
GDP	=	Gross Domestic Productivity
GON	=	Government of Nepal
Govt.	=	Government
HMG	=	His Majesty Government
i.e.	=	That is
L/C	=	Letter of Credit
Ltd	=	Limited
MBS	=	Master of Business Study
NBL	=	Nepal Bank Limited
NGOs	=	Non-government Organizations.
NIB	=	Nepal Investment Bank Limited.
NIC	=	Nepal Industrial and Commercial Bank Limited
NPAs	=	Non- Performing Assets
NRB	=	Nepal Rastra Bank
OBI	=	Other Baiting Institution
SWIFT	=	Fast and Reliable Money Transfer Service
TR	=	Trust Receipt
TU	=	Tribhuvan University

CHAPTER – I

INTRODUCTION

1.1 Background

Financial Institutions are those organizations that channel the savings of government, businesses, and individuals into loans or investments. Financial institutions provide capital to develop trade, industry, and business. Banks, finance companies, cooperative societies, insurance companies, stock exchanges help in the economic development of the country. The banking sector needs to play a vital development role to thrust up the economy by adopting the growth oriented credit policy and building up the financial structure for further and Advances in the crucial sectors of the economy for the upliftment of the national economy.

The name *bank* derives from the Italian word *banco* "desk/bench", used during the Renaissance by Florentines bankers, who used to make their transactions above a desk covered by a green tablecloth. However, there are traces of banking activity even in ancient times.

The Banks are one of the major financial sectors which perform the financial activities. The major function of the banks is saving and Investment management, which helps in the development of the country. So we could say that bank is the pivotal part of financing, since it involves a process of collecting scattered money and to help its mobilization in different sectors according to the need of customers. Banks help to develop saving habit of the peoples through offering attractive interest rates and various attractive schemes associated with it, which in-turns help to make other people to invest for their business.

Commercial Banks are those institutions which accept deposits, make business loans, and offers related services. Commercial banks are established to improve people's economic welfare and facility, to provide loan to the agricultural, industry and commerce. Commercial banks have been playing a great role for the economic development of the country. Bank of Vanish established in 1157 is the first commercial bank in the world. In the beginning the main function of the commercial banks was accepting deposit and lending loan, but now their function have increased and modified. As per commercial bank Act 2031, "A commercial

bank means banks which deals in exchanging currency, accepting deposit, giving loan and doing commercial transactions."

Commercial banks are run to make a profit, they allow for a variety of deposit, such as current, saving and fixed deposit. The deposit received by the banks is not allowed to lie idle. After keeping a certain portion of the deposits as reserves, the bank gives the balance to borrowers in the form of loans and advances. The different types of loan like: cash credit, direct loans, overdrafts, short term loans etc.

Lending is defined as a loan of funds in return for a promise future payment. It is the most important function of a commercial bank. Lending is the heart of commercial banks in the sense that it occupies large volume of transactions. It covers the main part of investment. It can be said that investment activities are based on lending. It is the main factor of credit profitability. It affects overall economy of the country including national economy to some extent. The bank doesn't provide loan without sufficient collateral for its security. If the borrower fails to back the loan the bank will recover from the collateral.

One of the risky functions of the commercial banks is lending. For this commercial banks have to pay appropriate concern while formulating Lending Policy. A well development of any commercial bank depends upon its Lending Policy. A good Lending Policy attracts of borrowers and lenders, which help to increase the volume and quality of deposits, loans and investment.

Lending is probably the most important service provided by commercials banks. Loans are the most important assets held by banks and bank lending provides the bulk of bank income (Reed, Cotter /Gill/Smith, 1976).

1.2 Profile of banks

There are 31 commercial banks (up to mid July 2013) registered with Nepal Rastra Bank. Out of these pioneer four private commercial banks have been selected for the study and analysis of credit Management of Commercial Banks which are as follows:

1. Bank of Kathmandu Limited
2. Kumari Bank Limited
3. Nabil Bank Limited
4. Standard Chartered Bank Nepal Limited

Bank of Kathmandu Limited

Bank of Kathmandu Limited was incorporated in 1995, after the restoration of democracy in 1990 under the company act 1964. SIAM commercial bank Thailand is the joint venture partner of BOK. Nepalese managers, from the very beginning to till today are managing this bank. In very competitive and small market of Nepalese commercial bank, BOK is struggling for betterment. The SIAM commercial bank diluted its holdings to the Nepalese citizens in 1998. After that Nepalese public holds 97.72% of the equity share of BOK and remaining shares are held by financial institutions (0.9%) and organized institutions (1.38%). Thus, BOK is regarded as the bank of Nepalese promoters. BOK came into operation in March 1995 with the following predominated objectives.

- ✓ Identify business prospects not yet catered by their existing commercial banks and offer new banking products and services.
- ✓ Introduce modern banking technology facilitating bank and business operations and transactions.
- ✓ Accepting deposits and providing loans to industry, commerce, agriculture, as well as home loan and hire purchase loan through its various branches.

Source: Annual Report of BOK, 2012/2013

Nabil Bank Limited

Nepal Arab Bank Ltd (NBL) was the first joint venture bank established in 1984 AD, joint venture with United Arab Emirates Bank. At present, NB (International) Limited, Ireland is the foreign partner of the bank. The Nepal Arab Bank Limited has been renamed as Nabil Bank Limited from Jan 1, 2002. Nabil introduced many innovative products and marketing concepts in the banking sector of Nepal. It has 48 branches, 78 ATMs and 2330 Remittance agents until 2013, with head office at kamaladi, Kathmandu. Nabil Bank is the first bank to introduce credit card facility in the country. It commenced credit card facilities with the acceptance of master card. Success of Nabil is a milestone in the banking history of Nepal as it paved the way for the establishment of commercial banks and financial institutions.

The share holding pattern of Nabil Bank Ltd. is as follows:

- ✓ N.B. (International) Limited, Ireland holding 50% of the capital.
- ✓ General Public holding 30% of the capital.
- ✓ Nepal Industrial Development Corporation (NIDC) holding 10% of the capital.

- ✓ RastriyaBeemaSansthan holding 9.67% of the capital.
- ✓ Nepal Stock Exchange Limited holding 0.33% of the capital.

Source: Annual Report of NBL, 2012/2013

Kumari Bank Limited

Kumari Bank Limited, came into existence as the fifteenth commercial bank of Nepal by starting its banking operations from Chaitra 21, 2057 B.S (April 03, 2001) with an objective of providing competitive and modern banking services in the Nepalese financial market. The bank has paid up capital of Rs. 1,603,800,000 of which 70% is contributed from promoters and remaining from public. It has been providing wide - range of modern banking services through 30 points of representations located in various urban and semi urban part of the country, 28 branches outside and inside the valley; and 2 extension counters. The bank is pioneer in providing some of the latest / lucrative banking services like E-Banking and SMS Banking services in Nepal. The bank always focus on building sound technology driven internal system to cater the changing needs of the customers developed by Temenos NV, Switzerland and arrangement of centralized data base system enables customer to make highly secured transactions in any branch regardless of having account with particular branch. Similarly the bank has been providing 365 days banking facilities, extended banking hours till 7 PM in the evening, Utility Bill Payment Services, Inward and Outward Remittance services, Online remit Services and various other banking services Visa Electron Debit Card, which is accessible in entire VISA linked ATMs (including 39 own ATMs) and POS (Point of Sale) terminals both in Nepal and India, has also added convenience to the customers.

The share holding pattern of Kumari Bank Ltd. is as follows:

- ✓ The promoter individuals hold 51% of paid up capital.
- ✓ . The remaining 49% of paid-up capital is held by the general public.

Source: Annual Report of KBL, 20012/201

Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint-venture operation. Today the Bank is an integral part of Standard Chartered Group who has 75% ownership in the company with 25% shares owned by the Nepalese public. The Bank enjoys the status of the largest international bank currently operating in Nepal.

Standard Chartered Group employs almost 60,000 people, representing over 100 nationalities in over 50 countries in the Asia Pacific Region, South Asia, the Middle East, Africa, the United Kingdom and the Americas. This diversity lies at the heart of the Bank's values and supports the Bank's growth as the world increasingly becomes one market.

With strong organic growth supported by strategic alliances and acquisitions and driven by its strengths in the balance and diversity of its business, products, geography and people, Standard Chartered is well positioned in the emerging trade corridors of Asia, Africa and the Middle East.

An integral part of the only international banking Group currently operating in Nepal, the Bank enjoys an impeccable reputation of a leading financial institution in the country. Standard Chartered Bank Nepal Ltd. is in a position to serve its customers through a large domestic network. In addition to which the global network of Standard Chartered Group gives the Bank a unique opportunity to provide truly international banking in Nepal.

The bank has over all 11 branches and several extension counters, with head office at NayaBaneshwor, Kathmandu.

The share holding pattern of Standard Chartered Bank Nepal Ltd is as follows:

- Standard Chartered Bank Limited, Australia holding 50% of the share capital.
- Standard Chartered Bank Limited, United Kingdom holding 25% of the share capital.
- General Public holding 25% of the share capital.

1.3 Statement of the problem

Credit management is the main part of the commercial banks. Due to the lack of sound credit policy Nepalese bank are facing various problems. Due to the inappropriate policy of the government and the slow economy growth of the country, the growth of banking sector is not satisfactory. The lending procedure is complicated so the borrowers are not able to get loan easily, it slowdown rate of loan disbursement. Banks are investing in real sector for their safety purpose. Banks are not investing in industrial sector which are very risky projects due to the political instability and confused economic policy. The commercial banks are also facing the problem of over liquidity due to the lack of lending opportunities. Commercial banks have to face tough competition due to limited and narrow capital market and investment opportunities. Even the difficult economic environment has reduced the earning capacity of many sectors in the economy, thereby affecting the overall performance of the commercial banks. The volume of nonperforming loans is rising steadily. This has resulted in constraints in the earning capacity of the banks. It has also reduced the turnover of funds in commercial banking sector thereby failing to generate more business. Nepalese commercial banks do not have a well-organized credit management. They depend much on the instructions and guidelines of Nepal Rastra Bank. Even if they have formulated some guidelines, they fail to implement it due to poor supervision and lack of professionalism. Nowadays banks have increasing number of deposits in fixed and saving accounts but have decreasing trend in lending behaviors. So, this has caused major problems in commercial banks.

The focus of the study will be on following specific issues:

- ✓ What is the exact present lending efficiency of Nepalese commercial banks?
- ✓ What is the condition of liquidity?
- ✓ How efficiently the banks have utilized their deposit towards loan and advances to generate income?
- ✓ What is the volume of total loan occupied by Non-performing loan?

1.4 Objective of the study:

The main objective of the study is to make a comparative analysis and evaluation of the credit management of the commercial banks with the framework of the study, the sub-objectives are;

- ✓ To analyze credit management of Nepalese Commercial Banks.
- ✓ To compare credit management of sample banks.
- ✓ To analyze relationship of loan and advance, total investments with total deposits.
- ✓ To examine the volume of non-performing loan.
- ✓ To examine the adequacy of loan loss provisioning.

1.4 Significance of the study:

Lending is the main function of the commercial bank where the whole banking business is rested upon. In the context of Nepal, there are less availability of research work, journals and articles in the lending policy of commercial bank. There are only few researches in Commercial bank especially on their lending practices. Few books dealing with these aspects are found but they are not sufficient. This Thesis report will help the commercial banks to fill up a research gap on the study of credit management. Through this report the investors would get information to make decision while making investment on shares of various banks. This study will provide a useful feedback for academic institutions, bank employee, trainees and investors and also for financial persons, policy maker bodies and other persons concerned with commercial bank. This study will serve to be a guide to the management of banks, financial institution, related parties, shareholders, and general public.

1.6 Limitation of the study:

The study has certain limitations they are as following:-

- ✓ This study covers only BOK, KBL, NBL, and SCBNL.
- ✓ This study is based on data of 5 years period.
- ✓ This study is concerned only on those factors related to lending.
- ✓ The study is based upon the secondary data, the data collected from the respective Commercial Banks may not be accurate, it is totally depends on the reliability of the source.

1.7 Organization of the study:

To make research more effective and easy to understand this study is organized in five chapters.

Chapter-1 Introduction

This chapter includes general background of the study, statement of the problem, objectives of the study, significance of the study, limitation of the study, and organization of the study.

Chapter-2 Review of literature

This chapter has focus on the Review of Literature which includes review of books, journals, bulletins and annual reports published by the banks and other related authorities, review of related articles, studies and previous thesis as well.

Chapter-3 Research methodology

This chapter includes the research design, methods of data collection, data collection instruments, sources of data, analysis of data, population and sampling and tools for analysis which are ratio analysis and statistical tools.

Chapter-4 Data presentation and analysis

This chapter deals with the processing, analysis and interpretation of relevant data collected through defined course of research methodology with the financial and statistical tools described in chapter three.

Chapter-5 Summary, conclusion and recommendation

This is the last chapter of the study which provides summary and conclusion, suggestions and recommendations for the improvement in the future performance of the banks covered by the study. Finally, an extensive, bibliography and appendices will also present at the end of the thesis work.

CHAPTER – II

REVIEW OF LITERATURE

Introduction

The review of literature is a vital aspect of planning of the study. The main purpose of literature review is to find out what works have been done in the area of the research problem under study and what has not been done in the field of the research study being undertaken. In this area, how many research works have been conducted by various researchers regarding various aspects of banking sectors? Various views and opinions have been expressed by the different persons/researchers regarding commercial banks and their activities, magazines, journals, booklets, books and other related important publications which had been published by various sectors.

In this chapter, what others have related is important to know as it provides guidelines and feedback to serve the purpose of the study. So, the researcher has reviewed relevant literature relating to the field of this study. In other words, the main purpose of literature review is to find out what types of works and researches have been done in the past in the area of the research problem under study and what has not been done in the field of the research study being undertaken. For review study the researcher uses different books, reports, journals, and research studies published by various institutions, relevant studies on this topic and review of thesis work performed previously.

2.1 Conceptual framework

2.1.1 History of banking in Nepal

The history of banking in Nepal is not so old. In the past years indigenous individuals, wealthy agriculturists, lenders, merchants and traders conducted some banking activities along with their other business occupation. These activities were fragmented and mostly localized. Installation of “KaushiToshaKhana” as a banking agency during the regime of King Prithivi Narayan Shah could be regarded as the first step towards development of banking in Nepal. But institutional banking transactions started with the establishment of “TejarathaAdda” around 1877 AD, during the Prime Ministership of Rana Dip Singh to provide credit facilities to the public at a very concessional rate of interest. It used to issue loans at 5% interest under sufficient security of gold and silver. It didn't accept any deposits from people. So its limited resources were able to serve only limited people. So the concept of

saving was loan existence in Nepal unless the establishment of “Nepal Bank Limited” under Nepal Bank Act in 1937 AD as a first commercial bank of Nepal with 10 million authorized capital. The government owned 51 percent of the shares in the bank and controlled its operations to a large extent. Nepal Bank Limited was headquartered in Kathmandu and had branches in other parts of the country. Then the government felt the requirement of the central bank and established “Nepal Rastra Bank” in 1956 as the central bank. It played leading role in development of banking in Nepal and its function was to supervise commercial banks and to guide the basic monetary policy of the nation. Its major aims were to regulate the issue of paper money; secure countrywide circulation of Nepalese currency and achieve stability in its exchange rates; mobilize capital for economic development and for trade and industry growth; develop the banking system in the country, thereby ensuring the existence of banking facilities; and maintain the economic interests of the general public. Nepal Rastra Bank also was to oversee foreign exchange rates and foreign exchange reserves.

Prior to the establishment of Nepal Rastra Bank, Kathmandu had little control over its foreign currency holdings. Indian rupees were the prevalent medium of exchange in most parts of the country. Nepalese currency was used mostly in the Kathmandu Valley and the surrounding hill areas. The existence of a dual currency system made it hard for the government to know the status of Indian currency holdings in Nepal. The exchange rates between Indian and Nepalese rupees were determined in the marketplace. Between 1932 and 1955, the value of 100 Indian rupees varied between Rs71 and Rs177. The government entered the currency market with a form of fixed exchange rate between the two currencies in 1958. An act passed in 1960 sought to regulate foreign exchange transactions. Beginning in the 1960s, the government made special efforts to use Nepalese currency inside the country as a medium of exchange.

It was only after the signing of the 1960 Trade and Transit Treaty with India that Nepal had full access to foreign currencies other than the Indian rupee. Prior to the treaty, all foreign exchange earnings went to the Central Bank of India, and all foreign currency needs were provided by the Indian government. After 1960 Nepal had full access to all foreign currency transactions and directly controlled its exports and imports with countries other than India.

As a result of the treaty, the government had to separate Indian currency (convertible currency because of free convertibility) from other currencies (nonconvertible currency because it was directly controlled by Nepal Rastra Bank). In 1991 government statistics still

separated trade with India from trade with other countries. Tables showing international reserves listed convertible and nonconvertible foreign exchange reserves separately.

There were other government banking institutions. RastriyaBanijya Bank (National Commercial Bank), a state-owned commercial bank, was established in 1966. The Land Reform Savings Corporation was established in 1966 to deal with finances related to land reforms. Beside this NIDC was established in 1959 AD and Agriculture Development Bank established in 1976 AD and other development bank and financial institutions were established and contributing to the economy and banking tradition in Nepal.

Before globalization and financial liberalization, in the mid-1980s, only two commercial banks that are Nepal Bank Limited and RastriyaBanijya Bank were in operation. The liberalization paves the way for the establishment of private banks including the foreign joint ventures. As a result, seventeen commercial banks are in operation. Out of seventeen commercial banks, nine banks were established in joint venture, however, at present there are six joint venture banks, after withdrawal of foreign investment in three banks.

RastriyaBanijya Bank is fully owned by the GOV of Nepal, while in case of Nepal Bank Limited, GOV of Nepal is major shareholder. Remaining ten banks are fully owned by Nepalese investors.

In the mid-1980s, three foreign commercial banks opened branches in Nepal. The Nepal Arab Bank was co-owned by the Emirates Bank International Limited (Dubai), the Nepalese government, and the Nepalese public. The Nepal Indosuez Bank was jointly owned by the French Banque Indosuez, RastriyaBanijya Bank, RastriyaBeemaSansthan (National Insurance Corporation), and the Nepalese public. Nepal Grindlays Bank was co-owned by a British firm called Grindlays Bank, local financial interests, and the Nepalese public.

Nepal Arab Bank Ltd (NABIL) was the first joint venture bank established in 1984 AD, joint venture with United Arab Emirates Bank. Then two other banks were established simultaneously Nepal Indoseuz Bank Ltd currently Nepal Investment Bank Ltd with Indoseuz Bank of France and Nepal Grindlays Bank Ltd currently Standard Chartered Bank Ltd with Grindlays Bank of London in 1986 AD. Chartered Bank Nepal Limited has been in operation in Nepal since 1987 AD when it was initially registered as a joint-venture operation. Himalayan Bank Ltd joint ventured with Habib bank of Pakistan and SBI Bank Ltd with State Bank of India were established in 1993 AD. Everest Bank Ltd, joint ventured with Panjab National Bank India(early it was joint ventured with United Bank of India

Calcutta) and Nepal Bangladesh Bank Ltd with IFIC Bank of Kathmandu joint venture with SIAM commercial Bank Public Co., Thailand was established in 1995 AD. And Nepal Bank of Ceylon joint ventured with Ceylon bank of Srilanka was established in 1997 AD. Likewise Lumbini Bank Ltd and NIC ASIA Bank were established in 1998 AD. Others private commercial banks namely, Kumari Bank Ltd, Machhapuchhre bank Ltd, Laxmi Bank Ltd and Siddratha bank Ltd were established in 2000, 2001, 2002 AD respectively. Agricultural Development Bank was established in 2006. Global Bank Limited, Citizens Bank International Limited, Prime Commercial Bank Limited, Sunrise Bank Limited, Bank of Asia Nepal Limited were established in 2007. DCBL Bank Limited and NMB Bank Limited were established in 2008. Kist Bank was established in 2009. Similarly, Janata Bank Nepal Limited, Mega Bank Nepal Limited, Commerz and Trust Bank Nepal Limited and Civil Bank Limited were established in 2010. Century Commercial Bank Limited was establishment in 2011 and Sanima Bank Limited in 2012.

Banking system of Nepal has undergone through significant change since liberalization. Free market operation in the area of interest rate, foreign exchange rate and diversified banking products, which are latest development in the banking sector. Though banking System in Nepal is not so multifaceted when compared to that of developed countries; it has definitely grown to become more complex in recent years. Further, Electronic and Internet Banking services offered by the commercial banks indicate adaptation of advanced technologies and it has placed additional supervisory concern and challenges. NRB has recognized and accepted these challenges. Steps are taken to strengthen supervisory capacity by increasing efficient and professional manpower and introducing new technologies.

2.1.2 Concept of commercial banking

Commercial banks are those financial institutions, which deals in accepting deposits from persons and institutions and giving loans against securities. They provide working capital needs for trade, industry and even agriculture sectors. Moreover commercial banks also provide technical and administrative assistance to industries, trades and business enterprises.

(Ronald, 1999:87) “Principally commercial bank accepts deposits and provides loans, primarily to business firms there by facilitating the transfer of fund in economy”

According to the Commercial Bank Act 2031(1974) has defined that “Commercial Bank” means a bank which operates currency exchanges transactions, accepts deposits,

provide loan; performs, dealing, relating to commerce except the banks which have been specified for the co-operative, agriculture, industry of similar other specific objective.

The main function of commercial bank is the accumulation to the temporarily idle money of general public for trade and commerce. Its main function are accepting deposit and grant loan, exchange, and purchase and discount bill for promissory notes, exchange foreign currency, to provide loan, agency function, overseas trading services, information and other services. Commercial banks have been established to provide a suitable service, according to their customers.

The list of the commercial banks is given below:

Table No: 1

List of Commercial Banks in Nepal as of mid-July, 2012)

S.NO	Name	Operation Date (A.D.)	Head Office
1	Nepal Bank Limited (NBL)	1937/11/15	Kathmandu
2	RastriyaBanijya Bank Limited (RBBL)	1966/01/23	Kathmandu
3	NABIL Bank Limited (NABIL)	1984/07/16	Kathmandu
4	Nepal Investment Bank Limited (NIBL)	1986/02/27	Kathmandu
5	Standard Chartered Bank Nepal Ltd. (SCBN)	1987/01/30	Kathmandu
6	Himalayan Bank Limited (HBL)	1993/01/18	Kathmandu
7	Nepal SBI Bank Limited (NSBI)	1993/07/07	Kathmandu
8	Nepal Bangladesh Bank Limited (NBBL)	1993/06/05	Kathmandu
9	Everest Bank Limited (EBL)	1994/10/18	Kathmandu
10	Bank of Kathmandu Limited (BOK)	1995/03/12	Kathmandu
11	Nepal Credit and Commerce Bank Ltd. (NCCBL)	1996/10/14	Siddharthanagar
12	Lumbini Bank Limited (LBL)	1998/07/17	Narayangadh
13	NIC ASIA Bank Ltd	1998/07/21	Biratnagar

14	Machhapuchchhre Bank Limited (MBL)	2000/10/03	Pokhara
15	Kumari Bank Limited (KBL)	2001/04/03	Kathmandu
16	Laxmi Bank Limited (LXBL)	2002/04/03	Birgunj
17	Siddhartha Bank Limited (SBL)	2002/12/24	Kathmandu
18	Agriculture Development Bank Limited (ADBL)	2006/03/16	Kathmandu
19	Global Bank Limited (GBL)	2007/01/02	Birgunj
20	Citizens Bank International Limited (CBIL)	2007/06/-21	Kathmandu
21	Prime Commercial Bank Limited (PCBL)	2007/09/24	Kathmandu
22	Sunrise Bank Limited (SRBL)	2007/10/12	Kathmandu
23	DCBL Bank Limited (DCBL)	2008/05/25	Kathmandu
24	NMB Bank Limited (NMB)	2008/06/02	Kathmandu
25	Kist Bank Limited (KiBL)	2009/05/07	Kathmandu
26	Janata Bank Nepal Limited (JBNL)	2010/04/05	Kathmandu
27	Mega Bank Nepal Limited (MBNL)	2010/07/23	Kathmandu
28	Commerz& Trust Bank Nepal Limited (CTBNL)	2010/09/20	Kathmandu
29	Civil Bank Limited (CBL)	2010/11/26	Kathmandu
30	Century Commercial Bank Limited (CCBL)	2011/03/10	Kathmandu
31	Sanima Bank Limited	2012/02/15	Kathmandu

Source: NRB Annual Report 2013

2.1.3 Functions of commercial banks

Banks are financial institutions which perform its activities as a objective of profit maximization. To achieve this, the bank carries out functional activities, "Principally, commercial banks accepts deposits, provide loan, primarily to business firms thereby facilitating the transfer of funds in the economy". The business of commercial bank is

primarily to hold deposits and make credits and investments with the object of securing profits for its shareholders. Although, in the yester years banks have to perform overall development of trade, commerce, industry, agriculture including supports for priority and deprived sectors. Due to the increment in the banking habit of people, competitive environment of banking business all over the world has made this sector very challenging.

Even though commercial banks are operating with the primitive function at receiving deposit, making loan and advances, money creation, agency services and other general utility services. To meet its major objective, it performs various functions under the mandatory rules and regulations and directives of NRB and the Commercial Act 1974 A.D. The functions of commercial banks are categorized mainly as follows.

Primary functions

Accepting deposits

Accepting a deposit is the most important function of commercial banks. Commercial banks collect money from those who want to deposit in different types of accounts such as:

- ✓ Fixed deposit Account
- ✓ Current deposit Account
- ✓ Saving Account

Advancing of loans

Commercial banks provide the required or credit to various sectors of economy such as industry, trade, agriculture, business-deprived sector etc. In this way bank creates credit facilities. It provides loans from various procedures in different form such as:

- ✓ Overdraft
- ✓ Cash credit
- ✓ Direct loan with collateral
- ✓ Discounting of bills of exchange
- ✓ Loans of money at call and short notice

General utility functions

Commercial banks also perform general utility functions such as:

- ✓ Issuing of letter of credit to its customers.
- ✓ Issuing of bank drafts and travelerscheque etc., for transfer of funds from one place to another.

- ✓ Dealing in foreign exchange and financing foreign trade by accepting or collecting foreign bills of exchange.
- ✓ Serving as referred to the financial standing and credit worthiness of its customers.
- ✓ Under writing loans to be raised by public bodies and corporations.
- ✓ Providing safety vaults of lockers for the safe custody of valuables and securities of the customers.
- ✓ Acting as a trustee and executing the will of the deceased.
- ✓ Remittance of money.

Agency function

Apart from the above functions, commercial banks also perform agency functions for which they act as agent and claim commission on some facilities such as:

- ✓ Collection of customer's money other banks.
- ✓ Receipt and payment of dividend, interest.
- ✓ Security brokerage service.
- ✓ Financial advisory service.
- ✓ To understand the government and private securities.

2.2 Credit concept

Credit is regarded as the heart of the commercial banks in the same sense that; it occupies large volume of transaction; it covers the main part of the investment activities based in credit; it is the main factor for creating profitability; it is the main source of creating profitability, it determines the profitability.

Transaction between two parties in which one (the creditor or lender) supplies money, goods, services, or securities in return for a promised future payment by the other (the debtor or borrower). Such transactions normally include the payment of interest to the lender. Credit may be extended by public or private institutions to finance business activities, agricultural operations, consumer expenditures, or government projects.

Most modern credit is extended through specialized financial institutions, of which commercial banks are the oldest and most important. In present-day industrial economies, the banks are able to extend and increase the supply of credit by the creation of new deposits for their loan customers.

The lender must judge each loan he makes on the basis of the character of the borrower (his intention to repay), his capacity to repay (based on his potential for earning income), and his collateral (property pledged in case of default on the loan). The terms of credit transactions may be publicly regulated to prevent abuses by customers and lenders as well as to channel credit into particular sectors of the economy.

Credit is the amount of money lent by the creditor (bank) to the borrower (customers) either on the basis of security or without security. Sum of money lent by bank is the credit. (Oxford Advance learner's Dictionary, Calcutta, Oxford University Press, 1992, P.279)

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

1. Overdraft
2. Cash credit
3. Direct credit
4. Discounting of bills

2.2.1 Types of credit

1. Overdraft

Conceptually it is the excess amount withdrawn by a customer over their deposits from current account maintained with the Bank. A bank may honor an overdraft, depending on the importance of the customer and on prior arrangements (if any) to cover overdrafts.

2. Cash credit

Cash Credit is a short-term cash loan to a company. A bank provides this type of funding, but only after the required security is given to secure the loan. Once a security for repayment has been given, the business that receives the loan can continuously draw from the bank up to a certain specified amount. This type of financing is similar to a line of credit.

3. Direct credit

a) Term credit

Term credit is medium and long term credits which are given for purchase of assets, like land, building, machinery and equipment. The amount of term credits is fixed primarily in relation to the total costs of the projects.

b) Working capital credit

A credit, whose purpose is to finance everyday operation of a company.

c) Priority or deprived sector credit

With a view to giving freedom to commercial banks in the selection of their credit portfolio, the NRB has taken a decision to gradually phase out the priority sector-lending program. The priority sector-lending ratio was reduced to 2% for 2008/09. It will not be compulsory for commercial banks to provide loans to the priority sectors from 2007/2008 onwards.

d) Hire purchase financing (Installment credit)

Hire purchase credits are characterized by periodic repayment of Principal and interest over the maturity of credit.

e) Housing credit (Real estate credit)

Commercial banks also extend housing credit to their customers who have regular income or can earn revenue from housing project itself.

f) Project credit

Project credit is granted to the customers as per project viability. The borrowers have to invest certain proportion to the project from their equity and the rest will be financed as project credit.

g) Consortium credit

Two or more institution may consent to grant credit facility to the project of which is baptized as consortium credit. It reduces the risk of project among them. Financiers bank equal (or likely) charge on the project's assets.

h) Credit cards and revolving lines of credit

Banks are increasingly utilizing charge cards and revolving lines of credit to make unsecured consumer credit. Revolving lines credit lowers the cost of making credit since operating and processing cost is reduced.

Charge cards and credit lines tied to demand deposit accounts are the most common revolving credit agreements. It can be further divided into credit cards, automatic overdrafts lines and large credit lines.

i) Off-Balance sheet transaction

In fact, bank guarantee and letter of credit refer to off balance sheet transaction of financial institution. It is also known as contingent liability. Contingent liability pinpoints the liability, which may or may not arise during the happening of certain event.

j) Bank guarantee

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

k) Letter of credit (L/C)

LC are a means by which non-payment risk in the use of commercial draft may be further reduced by substituting the credit worthiness of a bank for that of the purchaser when, because of the excessive credit risk factors both in the buyer and in his environment, the buyer bank will for a fee, guarantee payment in the form of LC.

4. Discounting of bills

It is the main function of commercial banks. Discounting of bill means made payment of bill, which are issued by commercial banks as well as central banks, NRB, before their expiration date or matured time. Therefore, payment should be less than the total amount because of their uncertainty.

2.2.2 Principles of credit policy

The income and profit of the bank depends upon its credit procedure, credit policy and investment of its fund in different securities. The greater the credits created by the bank, the higher will the profitability. A sound lending and investment policy is not only pre-requisite for bank's profitability but also crucially significant for the promotion of commercial savings of a backward country like Nepal.

Some necessities for sound lending and investment policies which most of the banks must consider can be explained as under:

1. Principle of liquidity

Liquidity means the whole money stock in the economy. In the case of Nepal, the money in the accounts of current, saving and fixed period and the money in margin account refers to liquidity. The liquid property means cash stock of the commercial banks the amount of short term, current account and short-term government and business security and the treasury bills.

A bank should not forget the principle of liquidity while it is following its investment policy. The commercial banks are considered to be as financial mediators. The commercial banks have liability to the deposits and they immediately should give it in time when the depositors asked. For the purpose, the banks should keep adequate liquid funds. And also they should gain the profit by utilizing the deposits as a loan and advances. If the bank can't

return the deposit at the time of demand it may lose the customers and their trust. If adequate liquid fund is kept, they can return the deposit at the will of the depositors but such bank can't run for long time. In the same way, if they invest the whole deposit loan and advances, they can't give it at the time of demand by the depositors, so the commercial bank should try to move the liquidity and profit together. It is a great challenge for the managers of the banks.

The commercial bank should attract deposits because a deposit is called raw materials for the banking, without which a bank can't operate. It is important thing in which sector the amount of deposit is to be invested. The interest is not given for the amount of current account. But as it has to give payment immediately plenty of liquidity is necessary for it. From the view point of the property, loan and advances are more income generating sectors but they are less liquid able. The amount won't be recovered in the time of want. Similarly keeping more cash in a bank is very liquid able, but doesn't generate income to the bank. The quantity of liquidity is less for investment so maintenance of coordination between the property and the liquidity by keeping some parts of its own property as a liquid property to provide loan, and to invest it is the success of the commercial banks. The central banks pay attention to this reality to give direction on liquidity to the commercial banks.

2. Principle of profitability

The objective of the commercial banks is to earn profit. The bank should follow the objective by focusing it on the sectors in which it can earn much profit. The bank should not keep its means and materials inactive. It should keep on investing the means and materials in appropriate and safe area. The banks can gain much profit from the safe and long-term investment. But there is less liquidity in such investment. It may loss the investment in the sector where profit is not gained. Where much risk is there, is much profit. But sometimes it may create a situation where the bank would face the great economic loss, by loss of the investment in such a risky sector. So profit and liquidity are two opposite principles. If bank pays its attention only on profit, the liquidity becomes less, if it pays attention to the liquidity, it can't be a long term investment and the bank doesn't get enough profit. So it should maintain a balance between these two. The profit of a bank is the interest rate and the bank charge. So the bank should always try to apply an appropriate investment policy in such sectors from which it can earn.

3. Principle of safety

A bank should pay special attention on safety. If the invested area is not safe enough the bank may occur loss whether it is huge or small. The bank should be sensible while investing in unsafe sector for gaining much by accepting the security of low quality. To invest large loans against fewer securities by receiving commission, to invest in new places without enough care, observation and to flow the long term loan although with these various reason will make unsafe of the bank's investment. So it should invest in safe sector where the property taken as the security has the value enough towards the loss on investment. Therefore the banks should follow the principle of safety, should flow the short term loans and invest in a profitable sector. In such circumstances there will be minor possibility of loss. The secured security means the securities of the inland and foreign, company's shares, debentures and government bonds etc.

4. Principle of diversification

The bank should not follow the policy of investment only in one or two sectors further it should invest it in the various sectors. The bank by studying and analyzing the different sectors where there is possibility of earning more through small investment should extend its investment. Investing in many sectors helps keep it in balance. Some sectors may have huge profit whereas the others may have low profit or even loss, so by embracing the diversification policy on its investment, on the basis of gold, silver, diamond, development bond, share of company, debentures, goods, import and export bills and other appropriate securities, the bank have moved head of their investment policy. The bank always gets success in their working capacity from such investment. And the bank becomes successful in its goal achievement.

5. Principle of marketability

A bank should adopt the principle of marketability in investment policy. In a certain way, the bank moves its investment or flows loan against security. To invest the money, the bank should follow the policy of taking the security of high quality as far as possible. Are the goods taken as securities saleable or not in the market? Can the loan be recovered by selling the security or not? The bank should adopt the investment policy by much attention regarding the different aspects; however, it should study the market and evaluate the goods that have been taken as the security. The bank should not invest the money by taking such securities

which are not saleable in the market and though they are sold but not fetch the reasonable price, and there is no value of such things.

6. Principle of national interest

A bank, while it applies its investment policy should give importance to the principle of national interest; however an application of such policy will not earn much profit. Any organization, institution and individual should not forget the liability towards the society. The objective of the bank to gain profit should not go against the national interest and the bank should follow the rules and regulation as well as the policy, directions, instruction given by the Nepal Rastra Bank.

7. Principle of price stability

Security of the property which are taken by the bank must be durable otherwise there is the possibility of amount of bank to be sunk in future. But it can't be said that the price stability of any property will always remain the same. Yet, if the property taken as the security keeps the price stable it will be easy for the bank to recover its loan. Sometimes if the price of the securities goes high, it will be beneficial to the bank. But, there will be few possibilities that it will always go high. If there are conditions where the securities will not be sold or if it is sold and the proceeds of sale are not equal to recover the loan, the bank suffers from loss. Therefore the bank should make investment by keeping the securities that keep the price stable, should flow the investment also create such situation which keeps the bank free from the fear of losing its loan.

8. Principle of tax immunity

As far as possible, a bank should make investment in such sectors which is entitled to the immunity. By increasing the investment to tax immunized sectors the bank can achieve its goal. The tax immunized areas likely treasury bills; national bond development bonds, etc. are notable. Example, if it is invested in the priority declared sectors, facility can be achieved. Therefore, the bank should make investment in the areas where facility of tax immunity can be received.

2.2.3 Lending criteria

For every disbursement of credit, well defined and approved procedure must follow, such well establish criteria for disbursing advances and loan is the most essential for the survive, thrive and succession of the commercial bank. For such launching process: systematic,

scientific, throughout study and analysis must be follow. These criteria are known as 5C, which are as follows:

1. Character:

Character will be the analysis of the applicant as to his ability to meet the obligations put forth by the lending institution. For this analysis, generally the following documents are needed.

- ✓ Memorandum and Articles of Association
- ✓ Registration Certification
- ✓ Tax registration certificate (Renewed)
- ✓ Resolution to borrow
- ✓ Authorization-person authorizing to deal with the bank
- ✓ Reference of other lenders with whom the applicant has dealt in the past or bank A/C statement of the customer.

2. Capacity

It will describe customer's ability to pay. It will be measured by applicants' past performance records and followed by physical observation. For this, an interview with applicant's customer/suppliers will further clarify the situation. Documents relating to this area:

- ✓ Certified balance sheet and profit and loss account for at least past 3 years
- ✓ Reference or other lenders with whom the applicant has dealt in the past or bank A/C.

3. Capital

This indicates applicant's capacity to inject his own money. By capacity analysis, it can be concluded that whether borrower is trying to play with lender's money only or is also injecting his own fund to the project. For capital analysis financial statements, like certified balance sheet, profit and loss account is the only tools.

4. Collateral

Collateral is the security proposed by the borrower. Collateral may be of either nature movable or immovable. Movable collateral comprises right from stock, inventories to plying vehicles. In case of immovable it may be land with or without building or fixtures, plant machineries attached to it.

5. Conditions

Once the funding company is satisfied with the character, capacity, capital, and collateral then credit agreement (sanction letter) is issued in favor of the borrower stating conditions of the credit to which borrower's acceptance is accepted.

2.2.4 Steps involved in lending

Before issuing of loan commercial banks follow up certain procedures for providing loans. In spite of several technical aids, such as ratio analysis of financial statements, cash flow statements available to the modern banker, the ability to make a correct loan decision very much depends on the shrewd and critical judgment, common sense, perceptive intelligence and discriminating sense of the lending banker. However the usual steps involved in lending are as follow:

1. Loan application

When a customer needs loan they ask for loan procedure in the bank according to the type of loan which may be a corporate loan or a retail loan. A loan application or a proposal is made if the customer finds all the process and information is reasonable. For corporate loan, it becomes necessary to consult loan officer. Loan officer can also contact to big account holder possessing business organization and ask if they are in need of loan.

2. Initial interview with the customer ascertaining the following few criteria:

- ✓ The character, capacity and integrity of the borrower.
- ✓ Prospects of his proposal- whether it will succeed or fail.
- ✓ Repayment capacity of the borrower including a consideration of the source of repayment.
- ✓ The collateral that being offered as security must be investigated as to the following:
 - Whether it is easily marketable
 - Value of the security at present
 - Whether the value is likely to be stable or it is the security such that its value fluctuates considerably and
 - In case of default in payment, it is easily transferable?

3. Credit investigation of the customer

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

- ✓ Past history of the account.
- ✓ Reports from other bankers and people in the same line of business in the case of new customer.
- ✓ Search of documents like memorandum of articles, registration papers, and annual report available with the Registrar of Joint Stock companies.
- ✓ A visit to customer's place of business.
- ✓ Analysis of balance sheet and profit and loss account and funds flow analysis in the case of existing companies.
- ✓ In case of new companies or new projects which includes the following:
 - Examination of technical feasibility.
 - Whether the project is economically viable.
 - The competence of the managerial personnel to successfully complete and run the project.
- ✓ Examination of the cash budgets to ensure the repayment programs.

Document that are usually required for providing loans through commercial banks:

1. Personal loan

- ✓ Registered charge (mortgage) over the fixed assets.
- ✓ Demand Promissory Note
- ✓ Undertaking to repay loan and/ or personal guarantee.

2. Loans to company/ firms

- ✓ Personal guarantee of promoters/ shareholders.
- ✓ Corporate guarantee of the concerned company/ firm.
- ✓ General Letter of Hypothecation- Where stocks and/ or machinery are hypothecated and/ or in the case of Working Capital Loan.
- ✓ Registered charge (mortgage) over the fixed assets.
- ✓ Demand Promissory Note.

3. Loans against cash (account) pledge

- ✓ Deed of Pledge of Cash/ Cash equivalent.
- ✓ Demand Promissory Note.
- ✓ Personal guarantee and/ or undertaking to repay loan.

4. Loans against pledge of shares

- ✓ Deed of Pledge of Shares.
- ✓ Demand Promissory Note.
- ✓ Personal guarantee and/ or undertaking to repay loan.

5. Loan against pledge of saving Bonds

- ✓ Deed of Pledge of Saving Bonds.
- ✓ Demand Promissory Note.
- ✓ Personal guarantee and/ or undertaking to repay loan.

6. Loan against security of authorization to deduct own or third party's account

- ✓ Deed of Authorization to Deduct Account.
- ✓ Undertaking to repay loans and/ or personal guarantee.
- ✓ Letter of Set Off.
- ✓ Demand Promissory Note.

Note: Proposed fixed assets security has to be valued by Bank's value before accepting such fixed assets as Bank's security.

In all the cases Credit Facility Offer Letter of the Bank has to be duly signed and returned by the client. Furthermore, required documents may vary on case to case basis.

The usual credit Appraisal Practice

In every bank they have their investment policy. Within which, they have a strong guidelines for the staffs working in credit/investment division. To guide such staffs for maintaining discipline, the management issues an internal directive called “Ten commandments”.

The Ten Commandments of Credit Policy Guide

For smooth and system running of an organization and to make honest the employees in the organization, there are good non-law rules within the system which are strictly followed by the credit personnel as known Ten Commandments:

1. You shall place a high priority on the quality of bank’s credit exposure. New relationship must meet bank’s credit criteria and existing portfolio should be under continuing

review to improve risk position. Bank's preference is for regulating amortizing and self-liquidating loans geared to borrower's ability to repay.

2. You shall constantly be mindful of bank's urgent need for earning from bank's existing and new credit exposure. Every profit opportunity should be explored and negotiation skills fully employed. Innovative employment of the bank's resources to increase return on assets must be encouraged.
3. You shall be constantly alert for profitable new business opportunities that increase the size of bank's customer base. You must not under any circumstances rest on bank's existing base of customers nor direct all bank's efforts on their behalf. Growth through enlargement of bank's base is far more attractive in the long run. In our search for new customers, the stress should be on desirable ongoing relationship rather than on marginal performers.
4. Risk dispersion is basic to sound credit principles and policies. You should be careful about large and undue concentration of credit by industry, 'one obligor' or any risk factors bearing on group of borrowers. However, bank must not diversify itself into an unwanted or unnecessary problem just for the sake of diversification.
5. You shall constantly be aware of the expenses burden in bank's credit operation. Is there a less costly means of accomplishing the bank's mission? What can be done to improve the cost efficiency of bank's credit operation? Increase in customer base must be weighed against cost in terms of expenses, time and service.
6. Lending decisions must consciously focus on optimizing the use of the bank's capital funds. The benefits so gained must be quantifiable, adequate and lasting, both for the bank and the borrower.
7. You shall use every effort to reduce and contain the size of bank's criticized loan portfolio. This is time killer and the very root of bank's losses.
8. Credit 'quality' is heavily impact by the structure of the credit. The risks of trouble along the line are increased materially as bank erodes basic protections which are designed to enable a timely and comfortable payback within the borrower's ability.
9. You shall Endeavour to improve both the bank's external and internal communications to limit unnecessary time and effort amongst the bank's customers and associates. Clear,

concise and summary type communication should be emphasized and utilized where necessary.

10. You shall Endeavour to make a contribution to all matters that involve your approval, concurrence or other action. On the other hand, you shall not lend your name merely to see it in print. You shall avoid all temptations which can jeopardize or compromise the bank's risk assets.

Guidelines:

Every bank and financial institution has a guidelines or a credit policy guide for appropriate use of credit system within the organization. The policy is prepared by the individual bank and financial institution based on the country's financial policy and the central bank's directives. After preparation of the policy the approval from the central bank should be taken. All the credit facilities from such banks and financial institutions have been providing on the basis of the above said policy. But the system of individual bank and financial institution is different. A credit policy guide of one bank focuses on one factor then another bank's credit policy guide focuses on the another factor. Principally, it should not have much more deviation between the organizations, which is the major issue in credit systems in Nepalese banking. If it has more deviation between the banks then the standard of credit system and appraisal, risk measurement, monitoring and controlling is also a vast different.

2.3 Credit risk management

1. Credit risk management policy

In spite of structural changes that have taken place in business line of the banks, the core business-gathering deposits and extending credit – still represents the heart of banking. Nevertheless, disintermediation halted this core business, as both deposits and loans have lost to competing instruments, such as Certificate of Deposits, commercial Papers, Bonds, Mutual Funds etc. In addition, by separating the origination of credit from its funding and securitization presents banks with the opportunity to remove credit, liquidity and interest rate risks embedded in their balance sheets.

Credit risk is the most common cause of bank failures, causing virtually all regulatory environments to prescribe minimum standards for credit risk management. The basis of sound credit risk management is the identification of the existing and potential risks inherent

in lending activities. Specific credit risk management measures typically include three kinds of policies like reduce credit risk, asset classification, and loss provisioning.

Yes, of course, liquidity risk has also the almost same degree of bank failures. Liquidity risk management lies at the heart of confidence in the banking system. The importance of liquidity transcends the individual institution, since a liquidity shortfall at a single institution can have system-wide repercussions. Banks transform the term of their liabilities to have different maturities on the asset side of the balance sheet. At the same time, banks must be able to meet their commitments (such as deposits) at the point at which they come due. The contractual inflow and outflow of funds will not necessarily be reflected in actual plans and may vary in different times. A bank may therefore, experience liquidity mismatches, making its liquidity policies and liquidity risk management in its business strategy.

The assessment of a credit risk management function should consider loans and all other extensions of credit (on and off balance sheet) to ensure that the following factors are considered:

- ✓ The level, distribution and severity of classified assets,
- ✓ The level and composition of none accruing, non performing, renegotiated, rolled over, and reduced rate assets,
- ✓ The adequacy of valuation reserves,
- ✓ Management's ability to administer and collect problem assets,
- ✓ Undue concentrations of credit,
- ✓ The adequacy and effectiveness of, and adherence to, lending policies and credit administration procedures,
- ✓ The adequacy and effectiveness of a bank's process for identifying and monitoring initial and changing levels of risk, or risk associated with approved credit exposure.

2. Creditportfolio management

The portfolio risk in turn comprises intrinsic risk and concentration risk. While intrinsic risk is inherent in certain type of lending like credit card etc., the portfolio risk refers to risk exposure due to disproportionate concentration of loans to specific industries, sectors, regions or types. Lenders also take on interest rate and liquidity risks. The symptoms of liquidity crisis in any bank can be traced to excessive credit risk, manifested in heavy loan losses. The credit risk of a bank's portfolio depends on two sets of factors – external and internal. The external factors are the state of the economy, natural calamities, nationwide

strike, Government's policy, business cycles, sector/industry recession etc. The banks can, however, influence the adverse effects of these factors on their performance (earnings, NPA and loan losses) through safe and sound lending policies and attitude towards risk taking (diversified credit portfolio, careful credit analysis, loan syndication, consortium, etc.). Managerial philosophy, loan policy – high propensity to assume risk or granting of loans with high probability of default, loan volume – high ratio of loan to total assets, loan mix, lax procedures and unsound prevention strategies and unexperienced credit officers are the internal factors influencing credit risk. Bank supervisors place considerable importance for formal policies laid down by the board of directors and diligently implemented by management. This emphasis is most critical with regard to the bank's lending function which stipulates that a bank must adopt a sound system for managing credit risk. A lending policy should contain an outline of the scope and allocation of bank's credit facilities and manner in which a credit portfolio is managed, i.e. how loans are originated, serviced, supervised and collected. A good lending policy is not overly restrictive, but allows for the presentation of loans to the board that officers believe are worthy of consideration but which do not fall within the parameters of written guidelines. Flexibility must exist to allow for fast reaction and early adaptation to changing conditions in a bank's earning assets mix and market environment.

Considering that form the basis for sound lending policies include the following:

- i. Limit on total outstanding loans:** A limit on the total loan portfolio is usually expressed relative to deposits, capital or total assets. In setting such a limit, factors such as credit demand, the volatility of deposits and credit risks should be considered.
- ii. Geographic limits:** This limit is usually a dilemma. If a bank lacks understanding of its diverse markets and does not have quality management, geographic diversification may become a reason for bad loan problems. On the other hand, the imposition of strict geographical limits can also create problems, particularly in the case of regions with narrow economies. In any case, a bank's business market should be clearly delineated and commensurate with its market knowledge, managerial and staff experience. Bank's officers should be fully aware of specific geographical limitations for lending purposes, an aspect that is particularly relevant for new banks.
- iii. Credit concentrations:** A lending policy should stimulate portfolio diversification and strike a balance between maximum yield and minimum risk. Concentration limits usually refer to the maximum permitted exposure to a single client, connected group and sector of

economic activities. This is especially important for small, regionally oriented or specialized banks. A lending policy should also require that all concentrations be reviewed and reported on a frequent basis.

iv. Distribution by category: Limitations based on aggregate percentage of total loans in commercial, real estate, consumer or other credit categories are common. Policies related to such limitations should allow for deviations that are approved by the board.

v. Types of loans: A lending policy should specify the types of loans and other credit instruments that the bank intends to offer to clients and should provide guidelines for specific loans. Decisions about types of credit instruments should be based on the expertise of lending officers, the deposit structure of the bank and anticipated credit demand. Types of credit that have resulted in an abnormal loss should be controlled by senior management or avoided completely.

vi. Maturities: A lending policy should establish the maximum maturity for each type of credit and loans should be granted with a realistic repayment schedule. Maturity scheduling should be determined in relation to the anticipated source of repayment, the purpose of the loan and the useful life of the collateral.

vii. Loan pricing: Rates of various loan types must be sufficient to cover the costs of funds, loan supervision, administration (including general overhead) and probable losses. At the same time, they should provide the reasonable margin of profit. Rates should be periodically reviewed and adjusted to reflect changes in costs or competitive factors. Rate differentials may be deliberately maintained either to encourage some types of borrowers to seek credit elsewhere or to attract a specific type of borrower. Guidelines for other relevant procedures, such as the determination of fees on commitments or penalty interest rates are also an element of pricing policy.

viii. Lending authority: Lending authority is often determined by the size of the bank. In smaller banks, it is typically centralized. In order to avoid delays in the lending process, larger banks tend to decentralize according to geographical area, lending products and types of customer. A lending policy should establish limits for all ending officers. If policies are clearly established and enforced, individual limitations may be somewhat higher than would normally be expected, depending on the officer's experience and tenure with the bank. Lending limits could also be based on group authority which would allow a committee to

approve larger loans. Reporting procedures and the frequency of committee meetings should be specified.

ix. Appraisal process: A lending policy should outline where the responsibility for appraisal lies and should define formal, standard appraisal procedures, including reference to reappraisals of renewals or extensions. Acceptable types and limits on the amount of appraisal should be outlined for each type of credit facility. Circumstances requiring appraisals by qualified independent appraisers should also be described. The ratio of the amount of the loan to the appraised value of both the project and collateral, as well as the method of valuation and differences among various types of lending instruments should be detailed. A lending policy should also contain a schedule of down payment requirements, where applicable.

x. Maximum ratio of loan amount to the market value of pledged securities:

A lending policy should set forth margin requirements for all types of securities that are accepted as collateral. Margin requirements should be related to the marketability of securities. A lending policy should also assign responsibility and establish a timetable for periodic pricing of collateral.

xi. Recognition: A bank should recognize a loan, whether original or purchased, in its balance sheet. This should occur as soon as the bank becomes the party to the contractual provisions that apply to the loan. A bank should initially carry the loan at cost.

xii. Impairment: A bank should identify and recognize the impairment of a loan or a collectively assessed group of loans. This should be done whenever it is neither probable nor assured that a bank will be able to collect the amounts due according to the contractual terms of a loan agreement. Impairment can be recognized by reducing the carrying amount of the loan to its estimated realizable value through an allowances or charge-off, or by attributing charges to an income statement during the period in which the impairment occurs.

xiii. Collections: A lending policy should define delinquent obligations of all types and specify the appropriate reports to be submitted to the board. These reports should include sufficient detail to allow for the determination of the risk factor, loss potential and alternative courses of action. The policy should require a follow-up collection procedure that is systematic and progressively stronger. Guidelines should be established to ensure that all accounts are presented to and reviewed by the board.

xiv. Financial information: The safe extension of credit depends on complete and accurate information regarding every detail of the borrower's credit standing. A possible exception to this rule is the case in which a loan was originally approved with readily marketable collateral to be used as the source of repayment. A lending policy should define the financial statement requirements for business and individuals at various borrowing levels and should include appropriate guidelines for audited, non-audited, interim, cash flow and other statements. It should include external credit checks required at the time of periodic updates. If the loan maturity is longer than one year, the policy should require that the bank's officers prepare financial projections with the horizon equivalent to the loan maturity, to ensure that the loan can be repaid from cash flow. The assumptions for the projections should be clearly outlined. All requirements should be defined in such a manner that any negative credit data would clearly violate the bank's lending policy.

Finally, a lending policy should be supplemented with other written guidelines for specific departments of the bank. Written policies and procedures that are approved and enforced in various departments should be referenced in a bank's general lending policy. The absence of written policies, guidelines and procedures is a major deficiency and a sign that a board of directors is not properly executing its fiduciary responsibilities.

3. Credit risk evaluation

All extensions of credit must be supported by a complete analysis of the proposed credit. A comprehensive and accurate appraisal of risk in every credit exposure of the bank is mandatory. No credit proposal can be put up for approval unless there has been a complete written analysis.

Objectives:

The objectives of having written documentation of an analytical nature to credit extensions are:

- ✓ To ensure a thorough analysis of all new borrowers.
- ✓ To ensure a periodic (at least, once a year) critical review of ongoing borrowing relationships including all aspects of the credit risk, overall profitability to the bank and marketing potential.
- ✓ To ensure proper and close evaluation of facility increases and/or significant modifications in existing credit arrangements.

- ✓ To facilitate and systemize the credit approval process by providing permanent signed record of approval together with the basis for the decision made.

Steps in analysis

The credit analyst should follow at least the following five distinct and logical steps to arrive at conclusions and make appropriate recommendations with regard to a proposed credit:

Source: Credit Policy Guide, NABIL Bank Ltd., p. 41.

i. Historical analysis

The purpose of the historical analysis is to evaluate the past performance of the management of the borrowing entity. The analyst determines the major risk factors and evaluates how these risks have been mitigated in the past. It identifies the factors in the borrower's present condition and the past performance which foreshadow difficulties, or indicate likelihood of success, in the ability to repay the requested facility at a future time. The two major tools for historical analysis are financial analysis and business risk analysis. The financial analysis is the quantitative toll and the business risk analysis is the qualitative.

ii. Forecast

Having analyzed management's past performance, the nature of the risks involved and how these were mitigated, the analyst should proceed to make a reasonable forecast of the probable future performance of the entity, whether through cash generated in the future operations or conversion of assets. The findings of the financial and business risk analysis will form the basis of forecast in light of the relevant business environment at present and during the foreseeable future. While forecasting, the analyst should highlight to what extent the inherent risks involved in the proposed lending situation are mitigated and indicates how the unmitigated risks can be covered.

iii. Pricing

Every credit facility generates some income for the bank in the form of interest earned and other fees. The funds the bank lends are generally deposited by the depositors or borrowed from other financial institutions. They, therefore have a cost. The analyst must determine the Return on Investment (ROI) of a facility to see if it meets the normal standards.

iv. Protection against loss

The analyst must then consider the bank's position in a distress situation. Liquidation analysis would be carried out to ascertain the bank's ability to recover the outstanding. If liquidation analysis indicates insufficient cover, the analyst may recommend increase in or additional collateral.

v. Debt structure and control

The analysis process should conclude with an assessment of the borrower's credit worthiness. If the analyst feels that the proposed facility may be extended, he/she should give a proposal for structuring the facility, given the borrower's assets and/or projected cash flow, so that it gives the bank adequate protection against loss and control of the relationship.

4. Loan loss provisioning policy

Classification of assets can provide a basis for determining an adequate level of provisions for possible loan losses. In determining an adequate reserve, credit history, collateral and all other significant factors that affect the collectability of the loan portfolio should be considered. These include the quality of credit policies and procedures, prior loss experiences, loan growth, quality and depth of management in the lending area, loan collection and recovery practices, changes in national and local economic and business conditions, and general economic trends. The asset value assessments should be performed systematically, consistently over time, and in conformity with objective criteria. They have to be supported by adequate documentation.

In many countries, in particular those with fragile economies, regulators have established mandatory levels of provisions that are related to asset classification. The mandatory level of provision is normally determined by certain statistics. In countries, where the legal framework for debt recovery is highly developed like USA, have demonstrated approximately 10% of sub-standard assets eventually deteriorate into loss. And, it is approximately 50% of doubtful and 100% of loss classification. In developing countries, where the legal frameworks and traditions for debt collection is less effective, provisions in

the range of 20-25% of substandard assets. In Nepal, it is 25% for substandard assets, 50% for doubtful and 100% for loss assets.

Sources: Nepal Rastra Bank, Directive to the banks, 2012.

The level of necessary loan loss provisions necessarily includes the degree of subjectivity. Management discretion, however, should occur in accordance with established policies and procedures. The following aspects have to be included in analysis of adequacy of the overall allowance for losses:

- ✓ A survey of the bank's existing provisioning policy and the methodology used to carry it out. In particular the value attributed to collateral and its legal/operational enforceability has to be considered.
- ✓ An overview of risk grading (asset classification) procedures and the review process including the time allotted for review.
- ✓ Any current factors that are likely to cause losses associated with a bank's portfolio and that differ from the historical experience of loss. These may include changes in a bank's economic and business conditions or in its clients, external factors, or alterations of bank procedures since the last review.
- ✓ A trend analysis over a longer period of time, which serves to highlight any increases in overdue loans and the impact of such increases.
- ✓ An opinion of the adequacy of the current policy and, on the basis of the loans reviewed, extrapolation of additional provisions necessary to bring the bank's total loan-loss provisions to a level in line with International Accounting Standard (IAS).

5. Non-performing loan portfolio

Non-performing loans are those not generating income. Loans are normally considered to be non-performing when principal or interest on them is due and left unpaid 90 days or more (this period may vary by jurisdiction). It is an international standard. The introduction of asset classification that entails provisioning requirements is costly to the banking sector. The delinquency period for non-performing assets is therefore typically introduced at 180 days and then tightened to 90 days after a period of time.

The non-performing loan portfolio is an indication of the quality of the total portfolio and ultimately of a bank's lending decisions. Another such indicator is the bank's collection ratio.

When assessed within the context of non-performing loans, the aggregate level of provisions indicates the capacity of a bank to effectively accommodate credit risk. The analysis of a non-performing loan portfolio should cover a number of aspects, like:

- ✓ Aging of past due loans, including principal and interest, by more than 30, 90, 180 and 360 days. These classifications can be broken down by type of customer and branch of economic activity to determine overall trends and whether or not all customers are affected equally.
- ✓ Reasons for the deterioration of the loan portfolio quality, which can help identify possible measures that can be undertaken by the bank to reverse a given trend.
- ✓ A list of non-performing loans, including all relevant details should be assessed on a case to case basis to determine if the situation is reversible, exactly that can be done to improve repayment capacity, and whether or not work out and collection plans have been used.
- ✓ Provision level should be considered to determine the bank's capacity to withstand loan defaults.
- ✓ The impact of profit and loss account should be considered to determine exactly how the bank would be affected by the deterioration of asset quality.

2.4 Directives issued by nrb for the commercial bank: (related to credit aspect only):

1. Credit classifications and provisioning

Classification	Provision
1. Pass Credit	1%
2. Substandard Credit	25%
3. Doubtful Credit	50%
4. Loss loan/the loan extended to blacklisted persons, firms, company or corporate body	100%

Those credits that have not crossed the time schedule of repayment and are within 3 months delay of maturity date fall under the classification topic 'pass credit'. It is also known as performing credit.

Substandard credit are those credit which are already crossed the repayment time schedule and are within 3-6 months delay of maturity date. Likewise, within 6-12 months

delay from the time to be recovered are classified as doubtful credit. Those credits, which are not recovered yet after 1 year from maturity date, are known as bad credit. All the above 3 types of credits are classified as non-performing credit also.

The credit loss provision for performing credit is termed as general credit loss provision whereas the credit loss provision for non-performing credit is termed as specific credit loss provision.

Auditor has to correctly rate the credit and ensure that accurate credit loss provision has been made. The auditor should examine whether the bank has obtained complete documentation so that bank's interest is secured. In addition, audit is made to inspect compliance of terms and conditions laid down. Credit audit is required to check whether credit given is within authority, drawing power, etc. Credit audit helps the bank to know quality of its credit, its weaknesses and strengths. This, in turn, helps the bank to adopt corrective measures where weaknesses have been pointed out and to focus further on strengths. General guidelines whether to reject or renew the credit can be established with the help of credit audit.

2. Limit of credit and advances in a particular sector

- I. Licensed Institution may extend to a single borrower or group of related Borrowers the amount of fund-based loans and advances up to 25 percent of its Core capital fund
- II. Non-fund based (off-balance items) can be issued up to 50% of core capital to a single customer, firm, company and group of related customer.

Note: The core capital includes {paid up capital + share premium + non-redeemable preference share + general reserve fund + accumulated profit (loss) - goodwill (if any included)}

Group of related customer:

- A. If a company holds 25% or more shares in another company.
- B. If a person, firm, Directors of a company, shareholders of a private company, partners of partnership firm, proprietor and spouse, son, daughter, adopted son, adopted daughter, parents, step mother and brothers and sister who have to be supported by such Director, shareholders, partner, proprietor are residing jointly in the same house

or separately. And the above members personally or combined take 25% or more share of another company.

- C. If the Director, shareholder or other relatives referred to in Sub-Clause (b) Hold less than 25 percent shares of another company jointly or individually, even then if the management of that other company is controlled by them in the following ways:
- a. By being a Chairperson of the Board of Directors;
 - b. By being the Chief Executive of the Company;
 - c. By appointing more than 25 percent of the Director
- D. Firms, companies stated to be associated as a group, or members of such group,
- E. Where one borrower or company referred to in Sub-clause (b) has provided a guarantee to another borrower or company, then such companies,
- F. If credit is provided to more than one person against the same collateral, all of such persons.
- G. If a personal guarantee has been given to each other, all of such persons giving/taking the guarantee.

2.5 Provision of NRB for productive and sectoral credit

Productive sector credit

Productive Sector includes agricultural/farm equipment, energy, tourism and small cottage industry. In these sectors the commercial banks should invest 10% of total loan.

Sectoral credit

- 1) Licensed institution shall have adequate internal policies and systems in place to monitor the concentration of sectoral exposures for controlling risks. Provided that in the event of Directives issued by this Bank, an additional loan loss provision according to Clause 9 shall be provided. The list of various sectors of the economy is referred to in the enclosed Directives Form No. 3.
- 2) The licensed institution shall separate sectoral exposures into two levels on the basis of credit concentration and arrange for control, monitoring and information system as follows (as formatted in Form No. 9.3) :-
 - (a) Level 1: Extension of Loans and Advances and Facilities from 50 percent

to 100 percent of Core Capital into a single sector. The licensed institution shall identify such loans and arrange monitoring mechanism and information system by themselves and monitor at least on quarterly basis.

(b) Level 2: With respect to extension of Loans and Advances and Facilities Exceeding 100 percent of Core Capital into a single sector such loan shall be also be endorsed by the Board of Directors. The Board of Director shall make a policy decision as to whether or not to maintain the exposure limits exceeding 100 percent of the Core Capital on annual basis. Such policy decision shall also be intimated to Bank and Financial Institutions Regulation Department and concerned Supervision Department of this Bank.

- 3) Licensing Bank and financial institution can extension not exceeding 40 percentages of total loan and advance in one sector.
- 4) Provisions relating to Housing Land and Real Estate Loans:
The amount of loan to be extended against the security of housing land and real estate shall not be more than 60 percent of the fair market value of the Housing loan and real estate loan under the collateral security.
- 5) (b) No licensed institution shall be allowed to advance loan in real estate more than 25 percent of the total loan and in real estate and residential housing both more than 40 percent of the total loan.
- 6) (c) The loans under this head shall have to be brought to the following limits:

Table No: 2

Head	Mid- july, 2012	Mid- july, 2013
House Loan, Apartment construction loan, Business collection loan	Not exceeding 30 percentage of the total loan	Not exceeding 25 percentage of total loan
Real estate loan and plotting loan	Not exceeding 15 percentage of the total loan	Not exceeding 10 percentage of the total loan

- 1) Real estate loan and residential housing loan means the real estate loan referred to in S. No. 5 and residential housing loan referred to in S. No. 7 of the explanation referred to in loan and advance for the purpose of Form No. 9.3 (a) of Directives No. 9.
- 2) Licensed institution shall not be allowed to restructure the loan provided for its purpose/product so as to exceeding the limits according to the time-limit prescribed while providing the loan.
- 3) This provision has not compelled to call back any specific loan before the repayment date in connection with maintaining the overall limit. The licensed institution may recover loan until the date of repayment fixed on the basis of installment of the loan according to the installment.
- 4) In case of loan commitment already made by a licensed institution upon approval of loan limit under the said purpose/product before issuance of these Directives 75(on December 17, 2009), these Directives shall not be deemed to have prohibited to provide loan equal to the amount of such commitment.
- 5) In case the real estate/residential housing loans provided after issuance of these Directives (on December 17, 2009) are not brought under the limit fixed for the Directives In case the real estate/residential housing loan provided in such a manner exceeds the limit, the risk weight of 150 percent shall to be provisioned while calculating the total risk weight assets for the amount so exceeded.
- 6) The amount down paid or deposited after opening up of the booking by the purchasers of apartments of a multi-residential complex shall have to be compulsorily deposited to the concerned bank in case only one bank provides loan for such complex and to the lead bank in case of a consortium financing.

Explanation:

"Exposure to a single sector" is defined as the sum of outstanding loans and facilities like guarantees, commitments and letters credit extended to customers in a single sector of the economy.

Regulation relating to loan classification and loan loss provisioning

With an objective to minimize the possible loss of credits extended by commercial banks as provided under section 23(1) of Nepal Rastra Bank Act 2012 (with amendment) relating to development and regulation and banking system . This directive in respect of loan classification & provisioning has been issued in exercised of authority under section 56 of bank and financial institutions act 2063.

- **Classification of outstanding loan and advances on the basis of aging**

Banks shall classify outstanding principal amount of loan and advances on the basis of aging.

Loans and advances

Loan and advances of the commercial banks increased by 17.89 percent to Rs.603.06 billion in the fiscal year 2011/12 compared to a growth of 14.23 percent last year. Loan and advances of public banks increased by 11.04 percent to Rs.115.49 billion, and that of private banks rose by 17.01 percent to Rs.496.11 billion during the year. Total loan and advances disbursed in various sectors of economy were compiled on the basis of returns submitted by the commercial banks. Manufacturing sector was the dominant sector of borrowing with 23.09 percent share followed by wholesale and retails 18.10 percent, others 11.20 percent and construction 9.8 percent.

Source: NRB Annual bank supervision report 2012

Non-performing loans

The total volume of NPL of the commercial banks declined by Rs.0.54 billion in F.Y. 2011/12 to Rs. 16.60 billion, which is 2.71 percent of total outstanding loan and advances as at mid-July 2012. The NPL of private banks amounted to Rs. 9.12 billion whereas that of public banks was Rs. 7.48 billion in 2011/12. The NPL ratio of public banks was 6.47 percent in mid-July 2012 while that of private banks was 1.84 percent. Public sector banks accounted 45.03 percent in total NPL of commercial banks while rest went to private sector as of mid-July 2012.

Source: NRB, Annual bank supervision report 2012.

Table No. 3

**Non-performing loans of the commercial banks
(In percentage of non-performing loan to total loan at mid-July)**

Name of Commercial Banks	FY 2007-08	FY 2008- 09	FY 2009- 10	FY 2010-11	FY 2011- 12
Bank Of Kathmandu Ltd.	1.86%	1.27%	1.51%	1.82%	2.30%
Nabil Bank Ltd.	0.74%	0.80%	1.47%	1.77%	2.33
Kumari Bank Limited	0.86%	0.23%	0.72%	0.60%	0.73%
Standard Chartered Bank Nepal Ltd.	0.92%	0.66%	0.61%	0.62%	0.78%
Total	4.38%	2.96%	4.31%	4.81%	6.14%

Source: Bank Supervision report 2012

Profitability

The total income of commercial banks increased by 15.04 percent to Rs. 95.51 billion in 2011/12 compared to a growth of 28.62 percent in 2010/11. Interest income, the significant proportion of income, contributed 88.71 percent of the total income. The residual portion was income from commission, other incomes, exchange income and non-operating income. All banks earned profit during the review year. The net profit of commercial banks increased by 5.27 percent to Rs. 15.23 billion in 2011/12 compared to a decrease in profit by 2 percent in 2010/11. The main factor contributing to profitability is the net interest income. In 2011/12 all banks had had positive net interest income. The weighted average interest spread of public sector banks declined to 6.52 percent from 7.89 percent in 2011/12. The weighted average interest spread of private sector banks also declined to 4.38 percent from 4.43 percent in the same period.

Source: Annual Reports, Annual bank supervision report 2012.

Sector wise and security wise credit flows

Total loan and advances disbursed in various sectors of economy were compiled on the basis of returns submitted by the commercial banks. Manufacturing sector was the dominant sector of borrowing with 23.09 percent share followed by wholesale and retails 18.10 percent, others 11.20 percent and construction 9.8 percent. Loan and advances disbursed by the commercial banks are backed by the various securities. At mid-July 2012, 84.50 percent of the total loan and advances were secured by the fixed property as collateral. Similarly, gold and silver and others secured 3.41 percent and 5.79 percent of the total loan and advances.

Source: Annual report, Annual Bank supervision report 2012

Priority sector and deprived sector lending of commercial banks

With a view to provide freedom to commercial banks in the selection of their loan portfolio, NRB phased out the priority sector-lending program since 2007/08. However, the NRB has continued deprived sector lending program in order to outreach credit access to the marginalized, backward, minorities, dalit, scheduled caste and deprived people. Nepalese commercial banks are required to disburse at least 3% as directed lending. The total loan amount disbursement in 2010 to 2011 is 28794.1 million and 37685.0 million in 2011/2012. Failure to meet this obligation results in the financial penalty, computed on the basis of the highest published lending rate of the defaulting bank. During 2011/12, Civil Bank Limited was penalized

(Rs. 13621.17), for not complying with the norms of directed lending. Commercial banks have lent Rs.27.08 billion. The Central bank allows bank to provide loans of up to Rs. 1, 00,000 without collateral.

2.6 Review of relevant articles and journals

Mr. Binam Raj Ghimire, (2006) in the article “*Credit Sector Reform and NRB*” has tried to highlight the effects of change or amendment in NRB directives regarding loan classification and loan loss provisioning. “Although the circumstances leading to financial problem or crisis in many Nepali banks differ in many respects, what is common across most of the bank is the increased size of non-performing assets (NPAs). To resolve the problem of the losses or likely losses of this nature facing the industry, NRB has, as the central bank, amended several old directives and issued many new circulars in the recent years.

As opined by him, since majority of the loans of most of the commercial banks of the country at present falls under substandard, doubtful, and even loss categories, loan loss provisioning now compared to previous arrangements would be dramatically higher. The new classification and provisioning norms are very lendable as they help to strengthen banks finally. He added that we also must remember that the old system remained in force from 1991 to 2005, which was probably the most volatile decade of the business operation of the country. He has indicated that loan loss provisioning as a percentage of total credit of April 12, 2005 us 5.2% but as April 13 2006, it has jumped to 18.39%. if only private banks are considered, it is 2.12% of April 2005 where as it is 6.30% as of April 13 2006. The total increment in LLP is Rs. 11,328.11 million and the total increment in credits is only Rs. 7,976.70. he has also stated that tightening provisioning requirements on NPL is essential to ensure that banks remain liquid even during economic downturns.

In conclusion he has mentioned that in the recent years, NRB has worked for management and reform of the credit of the financial institution more seriously and NRB has adopted reforms aimed not just at dealing with problem banks but also at strengthening banking supervision to reduce the likelihood of future crisis. “All prudential directives of NRB in connection of Credit sector reform have been made revised on after April 2005. To adapt to such changes there can be some difficulties and for a better and harmonized reform NRB should continue to be supportive, proactive, and also participative to take opinions of bankers for a change in regulation policy taking place in the future.

MrPradhan, in the article (2001) “NPA:Some suggestions to tackle them” found saying that unless the growth in NPA is kept in control, it has the potential to cause systematic crisis. He has mentioned that a dream of globalization led to huge investment, which unfortunately could not be utilized properly due to hesitant liberalization policies. Large corporate misused the credits and delayed payments and contributed indirectly for enhancing NPA ratio. He further argues that lack of vision in appraisal of proposal while loan sanctioning, reviewing or enhancing credit limits, absence of risk management policy of financing, concentrating of credit in few group of parties and sector, lack of coordination among various financiers, lack of initiatives to take timely action against willful defaulters, indecision on existing out of bad loans for fear of investigating agencies like special police, public accounts committee of the parliament have also contributed in whatsoever measures to the worsening situation on NPA front. He further pointed out that most crucial reason for the increase in the NPA is the shabby and defaulter friendly legal system. Suggesting the remedy

of NPA he adds that administrative system should be strengthened, legal reforms should be made, and assets Reconstruction Company should be formed.

2.7 Review of previous thesis

Adhikari (2010) entitled with "*Credit Management of Nepalese Commercial Banks*" has following objectives and major findings:

Objectives:

- ✓ To analyze the loan and advances provided by NIB and NIC Banks.
- ✓ To find out the strength and weakness in the credit management of NIB and NIC banks.
- ✓ To analyze the credit efficiency of NIB and NIC banks.
- ✓ To analyze the relationship between loans and advances, net profit and non-performing loan of NIB and NIC banks.

Major Findings:

- ✓ Average loan and advances to total deposit ratio of NIB and NIC is 0.71 and 0.78 respectively. NIC has maintained higher loan & advances to total deposit and NIC seems to be strong to mobilize its total deposit as loan & advances.
- ✓ Loan loss provision of NIB and NIC is in fluctuating trend, so the fluctuating loan loss ratio indicates inefficient credit policy. Here loan loss provision to total loan and advances of NIB is in decreasing trend which indicates decreased volume of non-performing loans of NIB.
- ✓ Correlation coefficient between non-performing loan and loans of NIC is -0.9155; it indicates that non-performing loans and loans were negatively related with each other. Loan management has been negatively influenced by non-performing loans.
- ✓ Loan gives significance impact in net profit. In addition, non-performing loan has the great affect in the loan management and net profit of the bank.

Pandey (2009) entitled with "*Credit Management Of Nepal Bank Limited*" has following objectives and major findings:

Objectives:

- ✓ To analyze the lending system of the bank.
- ✓ To examine the impact of growth in deposit on liquidity and lending practices.
- ✓ To explore the relationship with loan and advances and net profit of the bank.
- ✓ To assess credit practice of the bank.

Major Findings:

- ✓ At the time of financial reengineering process of Nepal Bank Limited, Loan investment policy has been brought. New policy of lending focuses on cash flow lending by passing out collateral based lending.
- ✓ Liquidity position of NBL seems strong. It is obvious that in the present situation of the country, investment potential is not favorable, so the liquidity is sufficient in the bank.
- ✓ The non-performing assets with respect to total assets of NBL is found with high volume i.e. 0.18.
- ✓ The trend of deposit utilization of Nepal Bank Limited is found very poor. During the study period, credit and investment to total deposit ratios of NBL was 59%. Similarly, correlation between deposit and loan and advance was negative.

Neupane (2010) entitled with “*Comparative Study of Lending Policy of Commercial Bank of Nepal*” has following objectives and major findings:

Objectives:

- ✓ To analyze the portfolio behavior of lending of selected commercial banks.
- ✓ To identify the commercial bank’s strength and weakness in lending.
- ✓ To evaluate the whole process of Lending.

Major Findings:

- ✓ The banks are able to utilize more than 70% of its deposit collection for the purpose of the lending which shows the capability of banks in utilizing its deposit for revenue collection.
- ✓ The loan and advances are positively and strongly correlated with net profit and total deposit in case of all three banks. The increase in Loan and advances results in increase in net profit. The observed correlation coefficient is significant.
- ✓ Net profits for all three banks are increasing over the period of study. The mean net profit over the period of study for BOK, EBL and NIC are respectively 218.66, 259.87 and 136.03 million respectively.
- ✓ All three banks BOK, EBL and NIC banks has lower than 5% NPL which means these are not only maintaining the Nepalese standard but maintaining international standard too. Also the decreasing NPL indicates trend of their profit and good performance.

Research gap

The purpose of this research is to develop some expertise in one's area, to see what new contribution can be made and to receive some ideas, knowledge and suggestions in relation to credit management of Commercial Banks. Thus, the previous study can't be ignored because they provide the foundation to the present study. In other words, there has to continuity in research. This continuity in research is ensured by linking the present study with the past research studies. Here we cannot found any research in Nepalese commercial bank in exact topic Credit management of the commercial banks from exact time period 2009 A.D. to 2013 A.D. To complete this research work, many books, journals, articles and various published and unpublished dissertations are followed as guideline to make the research easier and smooth. Our main research problem is to analyze whether the selected commercial bank is able to utilize the resources effectively or not. To achieve this main objective, various financial and statistical tools are used. Therefore, this study is useful to concerned banks as well as different persons: such as shareholders, investors, policy makers, stockbrokers, state of government etc.

CHAPTER III

RESEARCH METHODOLOGY

Research is the process of systematic and in-depth study of any particular subject or to investigation, backed by collection, compilation, presentation, and interpretation of relevant data and information.

Methodology is a set of methods used in a particular area of activity. As it is compulsory task to do these study so each and every student must perform it?

3.1 Research design

Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

Research design is the plan, structure, and strategy of investigation conceived so as to obtain answer to research question and to control variance. It includes is the overall scheme or program of research. It includes on outline of what the investigator will do from writing the hypothesis and their operational implications to final analysis of data. The structure of research is more specific. It is the outline, the scheme, and the paradigm of operations of the variables. Strategy includes the methods to be used to gather and analysis the data. In other words, strategy implies how the problems encountered in the research will be tracked. This study is based on descriptive and analytical research design.

3.2 Sources of data

Basically this study includes the secondary data relating to the credit of the commercial Banks. Primary data will also be used where secondary data are inadequate.

This study include secondary data relating to “Credit” e.g. deposit, loan and advances, and profit/loss that have been collected from profit and loss account, balance sheet of related banks, annual report of auditors. Other relating data are obtained directly from related authorized persons of concerned banks, regulating authorities i.e. ministry of Finance, NRB budget speech, NRB published books, banks bulletin, Annual report of Security exchange board of Nepal, newspaper, previous studies . According to the need and objective of the study, all the secondary data will be observed, processed and tabulated in time series.

3.3 Analysis of data

To achieve the objective of this study some statistical and accounting tools have been used. The data extracted from financial statement and other available information are processed and tabulated in various tables and charts under different heading according to their nature. These data are then used for required calculations like ratio analysis, growth ratio and accounting tools are used to examine the financial strengths and weakness of the bank. Similarly, some statistical tools like graph, percentage coefficient of correlation, regression analysis and the method of least square linear trend are also used in this study. Statistical results help to achieve the objective of the study.

3.4 Population and sample

The whole group which is to represent in the study is called population, more precisely, the totality or aggregate of all individuals with the specified characteristic is a population (Universe). When some of the elements are selected with the intention of finding out something about the population from which they are taken, that group of elements is referred as a sample and the process of selection is called sampling. Simply, speaking the methods of selecting a portion of the universe with a view to draw conclusion about the universe under study is known as sampling.

The entire number of Commercial Banks will be population for the study. There are 31 commercial Banks. Study of the whole population may not be possible due to various difficulties so the pioneer four commercial banks have been chosen for the study.

3.5 Tools for analysis

To compare these commercial banks, these following accounting and statistical tools are used for financial analysis.

3.5.1 Financial ratio analysis

The relationship between two accounting figures, expressed mathematically, is known as financial ratio (or simply ratio.) I.M Pandey, Financial Management, Eight Edition, Vikash Publishing House Pvt, Ltd., New Delhi, 2000, p 109.

Financial ratio analysis is designed to determine the relative strengths and weakness of business operations. It also provide 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 statement analysis involves a study of relationship between income statement and balance sheet accounts, how these relationship changes overtime and how a particular firm compares with other firms in its industry. (Comparative ratio analysis)

The usefulness of ratios depends upon the ingenuity and the experience of the financial analyst who employs them. By themselves, financial ratios are fairly meaningless they must be analyzed in comparative basis. Comparison covers the leading clues in evaluating changes and trends in the first financial conditions and profitability. This comparison may be historical, but it may include an analysis of the future based upon projected financial statement”. James C. Van Horne and John M.W. Achowiez, “ Fundamentals of Financial management Ninth Edition (New Delhi Prentice hall of India P. Ltd) p148

The qualitative judgment has been done regarding financial performance of the firm with the help of ratio analysis. In this study, following ratio are calculated and analyzed.

A. Liquidity ratio

The purpose of this ratio is to test the solvency position for the payment of short-term liabilities. Solvency position or liquidity denotes ability for payment of short-term liabilities.

Banking image is dependent upon its liquidity position. It should be able to provide demanded cash by its customer as and when necessary. Banking industry has its survival in its ability to create credit creation ability is dependent upon its liquidity ratio. The liquidity ratio of banking industry depends upon the banking habit of the people. Where banking practices is more pre relevant, the low current ratio doesn't necessarily increases its liquidity risk. But, in the economy like ours, here the banking habit of the people is low and the banking industry is just developing, the low liquidity ratio certainly increases the liquidity risk.

The following ratios are evaluated under liquidity ratio.

i) Current ratio

The current ratio measures the extent to which the claims of short-term creditors are covered by short-term assets. Current ratio can be computed as:

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current assets include normally those assets of a firm which could be converted into cash within one year period of time. These assets of firm includes cash, bank balance, and investment in treasury bills, discount, overdrafts, short term advance loans, and foreign currency loan, bills for collections, customer acceptance, stock receivable and prepaid expenses. Similarly, current liabilities includes those liabilities of a firm which are paid within one year period of time, like current payments, cash margins, current deposits, saving deposits, interbank reconciliation account, bills payable, provision for overdrafts, dividend payable, and provision for

the solvency position is not better and vice versa. Generally a current ratio of 2:1 is considered satisfactory.

ii) Liquid fund to total deposit ratio

This ratio is computed by dividing cash and bank balance by total deposit. This is computed as,

$$\frac{\text{Liquid Fund}}{\text{Total Deposit}}$$

Liquid Fund includes cash in hand foreign cash in hand; cheques and other cash items balance with domestic bank and foreign bank. The total deposit consists of current deposits and the fixed deposits, money at calls and short notice and other deposits.

iii) Liquid fund to current assets ratio

The ratio is computed by dividing Liquid Fund by current assets. Higher ratio shows the bank's ability to meet its demand for cash. It can be computed as,

$$\frac{\text{Liquid Fund}}{\text{Current Assets}}$$

iv) Loan and advances to current assets ratio

It shows the relationship between loan and advances to current assets or shows the capacity of a bank to purchase discount bill and loan, cash credit and overdraft facility to its customer. It can be computed as,

$$\frac{\text{Loan and Advances}}{\text{Current Assets}}$$

Loan and advances represent local and foreign bills discounted and purchased and loan, cash credit and overdraft in local currency as well as inconvertible foreign currency.

B. Assets Management Ratios (Activity Ratio)

A set of ratios which measures how effectively a firm is managing its assets and whether or not the level of those assets is properly related to the level of operations as measured by sales. So this ratio is also called efficiency ratio or turnover ratio. Because they indicate the speed with which the assets are converted or turn into sales. These ratios are very important for a concern to judge how well facilities at the disposal of the concern uses or to measure the effectiveness with which a concern uses its resources at its disposal. A proper balance generally reflects that assets are merged well. This ratio involves a relation between sales.

i) Loan and advances to total deposit ratio

This ratio is calculated to find out, how successful the bank is utilizing their total deposition loan and advances for profit generation purpose. Higher the ratio implies the better utilization of loan and advances out of total deposit. This is calculated as,

$$\frac{\text{Loan and Advances}}{\text{Total Deposit}}$$

ii) Total investment to total deposit ratio

Investment is one of the major components of credit created to earn profit. This implies the utilization of firm's deposit on investment in government securities and shares, debenture of other companies and bank. This ratio can be calculated as,

$$\frac{\text{Total Investment}}{\text{Total Deposit}}$$

The numerator Total Investment consists of investment on government securities, investment on debentures, share in other companies and other investment.

iii) Loan and advances to total working fund ratio

Loan and advances is the major component in working fund (total assets), which includes the ability of bank to channelize its deposit in the form of loan and advances to earn high return. This can be calculated by dividing loan and advances by total working fund. This can be stated as,

$$\frac{\text{Loan and Advances}}{\text{Total Working Fund}}$$

C. Profitability ratio

Profitability ratio is one of the main indicators to analyze the financial performance of the firm. Profitability ratios are calculated to enlighten the end result of business activities, which is the major criterion of the overall efficiency of the business concern. It measures the operating efficiency of the company.

Profitability ratio measures the degree of success in achieving desired level of the firm's profit. Profitability also indicates public acceptance of the product and shows the firm can produce competitively. The ratio can be computed on the basis of either sales or investment.

In this study, this ratio has been computed on the basis of investment so it is also known as return on investment ratio. Profitability ratio of a firm should always be higher.

Profitability position of the firm can be presented through the following different ways.

i) Return on loan and advance ratio

Return on loan and advance ratio indicates how efficiently the bank has utilized its resources in form of loan and advances. This ratio is calculated by dividing net profit (loss) by total amount of loan and advances. This can be calculated as,

$$\frac{\text{Net Profit(loss)}}{\text{Loan and Advances}}$$

ii) Return on total working fund ratio (ROA)

This ratio shows the overall profitability of all working fund i.e. total assets, it is also known as Return on Assets (ROA). A firm has to earn satisfactory return on assets of working fund in order to long-term service. This ratio is calculated by dividing net profit (loss) by total working fund. It can be calculated as,

$$\frac{\text{Net Profit(loss)}}{\text{Total Working Fund}}$$

iii) Total interest earned to total loan and advances ratio

Total interest earned to Total Loan and Advances Ratio measures the income as interest from total loan and advances. Interest income could be increased by embracing good issuing and recovery credit policy. High return shows the soundness of credit policy.

$$\frac{\text{Total interest earned}}{\text{Total Loan and Advances}}$$

D. Risk ratios

Risk means uncertainty, which lies in the banking transaction of credit management. It increases effectiveness and profitability of the bank. These ratios indicate the amount of risk associated with the various banking operations, which ultimately influence the bank's credit and investment policy. Following two ratios are evaluated.

i) Liquidity risk ratio

This ratio measures the level of risk associated with the liquid assets i.e. cash, bank balance that are kept in the bank for the purpose of satisfying the deposit demand for cash. Higher ratio shows lower liquidity risk. This ratio is calculated by dividing total Liquid Fund by total deposit.

It can be computed as:

$$\frac{\text{Total Liquid Fund}}{\text{Total Deposit}}$$

ii) Credit risk ratio and provisioning

Credit risk ratio

This ratio measures the possibility that loan will not be repaid or the investment will deteriorate in quality of going into default with consequently loss to the bank. According to definition, credit risk ratio is expressed as the percentage of non-performing loan to total loan and advances.

The ratio can be computed as:

$$\frac{\text{Non performing Loans}}{\text{Total Loans and Advances}}$$

Loan loss provision to total loan and advances ratio

This ratio describes the quality of assets that a bank is holding. The low ratio indicates the good quality of assets in total volume of loan and advances and high ratio indicates more risky assets in total volume of loan and advances.

The ratio can be computed as follow:

$$\frac{\text{Loan Loss Provision}}{\text{Total Loan And Advances}}$$

E. Adequacy of loan loss provisioning

Nepal Rastra Bank has set up directives regarding the maintenance of loan loss provision for different types of loan of commercial banks.

In this way, this analysis comprises the adequacy of loan loss provision as per NRB directives of the sample banks for the study period. Adequacy is measured by computing the ratios of loan loss provisioning to loans and advances of different classified loan.

i) Pass loan provision to total pass loan

This ratio measures whether the sample banks under the study has maintained the pass loan provision of at least 1% of total pass loan according to NRB directive throughout the review period. The ratio can be computed as follow:

$$\frac{\text{Pass Loan Provision}}{\text{Total Pass Loan}}$$

ii) Sub-standard loan loss provision to total sub-standard loan

This ratio measures whether the sample banks under the study has maintained the Sub-standard Loan Loss provision of at least 25% of total Sub-standard loan according to NRB directive throughout the review period. The ratio can be computed as follow:

$$\frac{\text{SubStandard Loan Loss Provision}}{\text{Total Sub Standard Loan}}$$

iii) Provision for doubtful debt to total doubtful debt

This ratio measures whether the sample banks under the study has maintained the Provision for Doubtful Debt of at least 50% of Total Doubtful Debt according to NRB directive throughout the review period. The ratio can be computed as:

$$\frac{\text{Provision for Doubtful Debt}}{\text{Total Doubtful Debt}}$$

iv) Provision for bad debt(loss) to total bad debt(loss)

This ratio measures whether the sample banks under the study has maintained the Provision for Bad (Loss) Debt of at least 100% of Total Bad (Loss) Debt according to NRB directive throughout the review period. The ratio can be computed as follow:

$$\frac{\text{Provision for Bad (Loss)}}{\text{Total Bad (Loss) Debt}}$$

3.5.2 Statistical tools

Some important statistical tools have been used to present and analyze the data for achieving the objective of the study. Simple analytical statistical tools such as, Karl Person's Coefficient of Correlation, method of least square are adopted which are as follows:

i) Coefficient of correlation analysis

This analysis interprets and identifies the relationship between two or more variables.

- i) Coefficient of correlation between Total Deposit and Loan and Advances.
- ii) Coefficient of correlation between Net income and Loan and Advances.
- iii) Coefficient of correlation between Interest Earned and Loan and Advances
- iv) Correlation between Non performing Loan and Total Loan & Advances

The above ratio tools analyzes the relationship between these relevant variables and helps the bank to make appropriate policies regarding deposit collection, fund utilization (loan and advances and investment) and profit maximization.

To find out those relationships, the following formula is used:

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

Where, $x = (X - \bar{X})$, $y = (Y - \bar{Y})$

The result of coefficient of correlation is always between -1 to +1, where $r = +1$ means there is a positive relationship between two variables and where $r = -1$, means there is a negative relationship between two variables.

ii) Standard deviation (S.D.)

The measurement of the scatter of the mass of figures in a series about an average is known as dispersion. The standard deviation measures the absolute dispersion. The greater the amount of dispersion, greater the standard deviation. Means a high degree of uniformity of the observations as well as homogeneity of the series, a large standard deviation means just the opposite. In this study standard deviation of different ratios are calculated as under:

$$S. D = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

Where, X = variable, \bar{X} = Mean and N = No. of Period.

CHAPTER- IV

DATA PRESENTATION AND ANALYSIS

In this chapter, all the efforts have been made to analyze and present all collected data from the various sources. This chapter determines the quality of the study because how far the collected data are presented and analyzed with the help of various financial and statistical tools, tables, graphs etc. as of meaningfully and clearly. This chapter has performed to know the clear picture of Credit management of Commercial banks BOK, KBL, NBL, and SCBNL. The outcomes of the study solely depend upon this chapter financial and statistical tools which are presented at research methodology which used here to interpretation collected data. This chapter has been divided into two parts. The first part of the chapter includes the presentation and analysis of data while the second part includes the major finding of the study.

4.1 Financial analysis

Ratio analysis is a main tool of financial analysis. Financial ratios are the mathematical relationship between two accounting figures.. The financial analysis helps to obtain better understanding of firm's position and performance. The first step involves selecting the information, second step involves arranging the information in a way to highlight significant relationships, the final step is interpretation and drawing of conclusion.

In this study some financial tools such as liquidity ratio, assets management ratio, profitability ratio, risk ratio, Adequacy of Loan Loss Provisioning ratios are calculated, which are as follows:

4.1.1 Liquidity ratio

Liquidity ratio measures the firm's ability to meet its measuring short term obligations. Commercial banks should maintain its satisfactory liquidity position to satisfy the credit needs of the community, to meet demands for deposit, withdraws, pay maturity obligation in time and convert non-cash to satisfy immediate needs without loss to bank and consequent impact in long run profit. The liquidity positions of the commercial banks are comparatively studied through the following ratios:

a. Current ratio

The current ratio indicates the ability of the bank to meet its current obligation. It measures the liquidity position of financial institutions. Current ratio is calculated by dividing current assets by current liabilities. The current asset include cash and bank balance with cheque in hand, balance with NRB, money at call and short notices, investment in government securities, bills purchased and discovered loans, and advances, and other current assets, similarly, current liability includes borrowing from other banks, deposit, bills payable, and the current assets. **(for details see appendix-A)**. The current ratio of BOK, KBL, NBL, and SCBNL is under analysis in the following table.

Table No. 4

Current Assets to Current Liability Ratio(Times)				
F/Y	BOK	KBL	NBL	Standard Chartered
2008/2009	1.04	0.82	0.82	0.12
2009/2010	0.90	0.69	1.40	2.98
2010/2011	0.60	3.56	0.97	1.68
2011/2012	0.32	0.47	0.63	0.37
2012/2013	1.04	1.18	1.06	1.29
Mean	0.78	1.34	0.976	1.288
Combine Mean				0.8783

Source: Appendix -A

The highest ratio of BOK is 1.045 times in F/Y 2008/2009 and the lowest is 0.32 times in F/Y 2011/2012. Respectively KBL has the highest ratio of 3.56times in F/Y 2010/2011 and the lowest of 0.47 times in F/Y 2011/2012. Respectively the SCBNL's highest ratio is 2.98 times in F/Y 2009/2010 and lowest is 0.12 times in F/Y 2008/2009.

The average mean ratio are as 0.78,1.34,0.97 and 1.28 if we measure the performance of these banks based in this mean, the performance of BOK, and NBL are weak and KBL,SCBNL has maintained good liquid assets. The mean current ratio of the banks is highest than combine mean implies a high liquidity ratio. The above table shows that the current ratio of BOK, KBL, NBL and SCBNL are in fluctuating trend.

Though the optimal standard of current ratio should be 2:1, the conventional measure of liabilities is not applicable in banking sector. Banking business holds huge portion of deposit as a core deposit and this deposit remains all the time throughout the years. This core deposit forms the fixed liability on the bank though it is current in nature. So the ratio maintained by commercial banks at the level of around 1:1 can be regarded as good and sufficient to meet the normal contingencies. Therefore, the above current ratio analysis of the banks over the five years period indicates that the banks have satisfactory liability position.

b. Liquid fund to total deposit ratio

This ratio measures the availability of bank's highly liquid or immediate funds to meet its unanticipated calls on all types of deposits. This ratio is computed as Cash, Balance with Nepal Rastra Bank, Money at Call and Short Notice, divided by Total Deposit (**for details see appendix-B**). A high ratio indicates the greater ability to meet their deposits and vice-versa. The following table shows the Liquid Fund to total deposit ratio of BOK, KBL, NBL, and SCBNL.

The ratios are analyzed and presented through the help of following table below:

Table No. 5

Liquid Fund To Total Deposit Ratio (%)				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	11.79	10.30	10.37	12.18
2009/2010	10.20	13.52	9.27	8.51
2010/2011	7.91	8.84	9.39	17.18
2011/2012	12.96	17.13	10.10	20.76
2012/2013	10.94	15.52	11.88	20.99
Mean	10.76	13.062	10.202	15.924
Combine mean				9.9896

Source: Appendix -B

The above table shows that the comparative Liquid Fund to total deposit of BOK has decreased for first two years according to the study period then from F/Y 2008/2009 and it increased in F/Y 2011/2012, then remains constant until F/Y 2012/2013. Whereas KBL, NABIL and SCBNL Ratio seems to be fluctuating. Among the four banks SCBNL has the highest mean ratio of 15.92% followed by KBL with 13.06% then NBL with the lowest mean ratio of 10.20%. Banks must be concern to maintain the lowest liquidity fund to total deposit ratios. The combined mean ratio of these two banks is 9.98.. The highest ratio of KBL and lowest ratios of NBL so, we can say that KBL has good liquidity to total deposit ratio then others.

c. Liquid fund to current assets ratio

This ratio examines the bank liquidity capacity on the basic of its most liquid assets i.e. Cash balance, Balance with Nepal Rastra Bank, Money at Call and Short Notice. This ratio reveals the ability of the bank to make quick payments of its customer's deposit. A high ratio indicates the sound ability to meet the Liquidity requirement of their customer's deposit and vice-versa.

This ratio is calculated by dividing cash and bank balance by current assets

(for detail see Appendix-C). The comparative ratios are presented in the following table:

Table No. 6

Liquid Fund To Current Assets Ratio (%)				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	90.37	61.32	80.42	579.57
2009/2010	95.84	27.11	41.90	158.06
2010/2011	313.77	97.40	99.23	127.86
2011/2012	240.35	172.36	23.95	807.45
2012/2013	92.43	10.22	83.32	196.09
Mean	166.55	73.68	65.76	373.80
Combine mean				135.96

Source: Appendix -C

Analyzing the above ratios it clears that Liquid Fund to current asset ratio of BOK has increased up to F/Y 2010/2011 and then started to decreased. Whereas KBL and NBL, Ratio seems to be fluctuating. The SCBNL ratios have increasing trend from F/Y 2008/2009 to 2010/2011 then fluctuating up to the study period.

On the basis of mean ratio SCBNL has the highest ratio of 373.80% followed by BOK with mean ratio 166.52% and NBL with mean ratio 65.76%, which is the lowest among the banks under study, It supports the conclusion that NBL has not been successful in maintaining its higher Liquid Fund to current asset ratio in comparison to BOK, KBL and SCBNL.

d. Loan and advances to current asset ratio

Loan and advances are the current assets of commercial bank, which includes loan and advances, cash, credit, loan and foreign bills purchased, overdraft and discount. A commercial bank should not keep its all connected fund as Liquid fund but they should be invested as loan and advances to customers because they must earn high profit by mobilizing funds for long life banking. They should pay interest on these deposit funds even they don't

generate loan and advances and may lose some earning. However, high loan and advances may be harmful, since they need sufficient liquidity.

This ratio is calculated by dividing loan and advances by current assets (**for details see Appendix- D**).The ratios are analyzed and presented through the help of following table below:

Table No. 7

Loan and Advances To Current Asset Ratio (%)				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	620.89	552.76	572.64	1814.19
2009/2010	770.05	1728.92	314.14	841.56
2010/2011	3295.84	947.89	808.03	360.88
2011/2012	1395.62	805.76	172.54	2116.21
2012/2013	687.65	518.581	510.84	540.30
Mean	1354.01	910.78	475.63	1134.63
Combine mean				775.01

Source: Appendix- D

The above comparative table shows that BOK has an increasing trend of loan and advance to current asset ratio from F/Y 2008/2009 to F/Y 2010/2011 and started to decrease during the study period. Meanwhile KBL and NBL are in fluctuating trend. Where SCBNL has is in decreasing trend from F/Y 2008/2009 to 2010/2011 and then after it starts to fluctuate till F/Y 2012/2013. BOK have highest mean ratio of 1354.01% and the lowest of 475.64% of NBL. The NBL also seems to have much more consistency than the BOK, KBL and SCBNL with its loan and advances to current asset ratio.

4.1.2 Asset management ratio

This ratio measures how effectively the commercial banks are managing its assets and whether or not the level of those assets is properly related to the level of operations as measured by sales. In other words commercial banks should be able to manage its assets properly to earn high profit maintaining the appropriate level of liquidity. The following

ratios are measured for the assets management ratio of the BOK, KBL, NBL, and SCBNL in comparison.

i) Loan and advances to total deposit ratio

This ratio measures the bank’s success to mobilize their funds on loan and advance for the purpose of income generation.

A high ratio indicates better mobilization of collected deposit and vice-versa. But, it is known that high ratio may not be better from the liquidity point of view. This ratio is computed by dividing loan and advances by total deposit.

This ratio is calculated by dividing loan and advances by total deposit (for details see Appendix- E). The following table shows the loan and advances to total deposit of the sample bank.

Table No. 8

Loan And Advances To Total Deposit Ratio (%)				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	80.99	92.88	73.87	38.13
2009/2010	82.02	84.70	69.53	45.35
2010/2011	83.10	86.10	76.53	48.49
2011/2012	75.27	80.11	75.61	54.42
2012/2013	81.42	76.50	72.89	57.84
Mean	80.56	84.05	73.68	48.84
Combine mean				57.43

Source: Appendix- E

The above table reveals that the BOK’s total investment to total deposit ratio has an increasing trend up to F/Y 2010/2011 then after in the F/Y 2011/2012 the ratio has decreased to 75.27%. KBL has the highest ratio of 92.88% in the F/Y 2008/2009 and the lowest ratio is 76.50% in the F/Y 2012/2013. Whereas the NBL has fluctuating trend in the ratio throughout the review period, its highest ratio is 76.53% in the F/Y 2010/2011 and the lowest ratio is 69.53% in the F/Y 2009/2010. Similarly SCBNL has also increasing trend its highest ratio is 57.84% in the F/Y 2012/2013 and the lowest ratio is 38.13% in the F/Y 2008/2009.

On the other hand, the mean ratio of KBL is the highest with 84.06%, then after BOK with the mean ratio of 80.56%, NBL with the mean ratio of 73.69% and the SCBL with the lowest mean ratio of 48.85% among the four sample banks.

From the above analysis we can conclude that KBL is the most successful than NBL and BOK, followed by SCBNL is the least successful among the three banks to mobilize its total deposit as loan and advances and acquiring high profit. Whereas high ratio is not better from the point of view of liquidity as the loan and advances is not as liquid as cash and bank balance.

ii) Total investment to total deposit ratio

A commercial bank may mobilize its deposit by investing its fund in different securities issued by government and other financial and non-financial companies. Now effort has been made to measure the extent to which the banks are successful in mobilizing the total deposit on investment. A high ratio is the indicator of high success to mobilize the banking fund as investment and vice-versa.

The ratio is computed by dividing total investment by total deposit (**for details see Appendix- F**), this ratio is computed in reference to BOK, KBL, NBL and SCBNL and the Banking Industry as a whole in the following table.

Table No. 9

Total Investment To Total Deposit Ratio (%)				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	15.39	9.61	28.98	56.41
2009/2010	16.09	13.17	29.30	56.41
2010/2011	20.39	20.79	100	45.41
2011/2012	20.99	13.37	25.58	35.97
2012/2013	17.17	16.33	25.69	32.31
Mean	18.00	14.65	41.91	45.30

Source: Appendix- F

The above table reveals that the BOK's total investment to total deposit ratio has a increasing trend up to F/Y 2010/2011 then after in the F/Y 2010/2011 to F/Y 2011/2012 the ratio remain constant approx. 20.99% after that it decreased to 17.17 in F/Y 2012/2013. KBL

is in fluctuating trend and has the highest ratio of 20.79% in the F/Y 2010/2011 and the lowest ratio of 9.61% in the F/Y 2008/2009. Whereas the NBL has increasing trend in the ratio up to F/Y 2010/2011 and remains constant throughout the review period, its highest ratio is 100% in the F/Y 2010/2011 and the lowest ratio of 25.69% in the F/Y 2012/2013. In case of SCBNL the total investment to total deposit ratio has remained constant by 56.41 up to F/Y 2009/2010, which is the highest over the year and started to decrease up to 32.31% which is the lowest percentage.

From mean ratio point of view, SCBNL's capacity to mobilize their deposit on total investment is highest among the four banks, SCBNL has the highest mean ratio of 45.30%, then after NBL with the mean ratio of 41.91% likewise BOK has 18.06% and the KBL has the lowest mean ratio of 14.65% amongst the four.

From the above analysis we can conclude that SCBNL is the most successful and KBL is the least successful among the four banks to utilize its resources as an investment point of view.

iii) Loan and advances to total working fund ratio

Loan and advances of any commercial bank represent the major portion in the volume of total working fund. This ratio measures the volume of loan and advances in the structure of total assets. The high degree of this ratio indicates the good performance of the bank in mobilizing its funds by the way of lending function for the purpose of income generation. However, in its reserve side, the low degree of this represents low liquidity ratio.

This ratio is calculated by dividing loan and advances by total working fund (**for details see Appendix- G**). The ratio of BOK, KBL, NBL and SCBNL has been presented in the following table.

Table No.10

Loan and Advances To Total Working Fund Ratio (%)				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	71.46	78.71	62.89	34.14
2009/2010	71.22	72.07	61.87	39.67
2010/2011	70.55	71.37	65.41	42.06
2011/2012	65.13	70.08	65.83	46.96
2012/2013	69.30	68.63	63.31	50.02
Mean	69.53	72.17	63.86	42.57
Combine mean				49.62

Source: Appendix- G

The above table shows that the BOK's ratios are constant in F/Y 2008/2009 and F/Y 2009/2010 and further in fluctuating trend. The highest ratio is 71.46% in F/Y 2008/2009 and the lowest ratio is 65.13% in 2011/2012. Similarly the ratios of KBL are in decreasing trend with highest ratio 78.71% in F/Y 2008/2009 and the lowest is 68.63% in F/Y 2012/2013. Whereas, the ratios of SCBNL is in increasing trend from the F/Y 2008/2009. The highest ratio of SCBL is 50.02% in F/Y 2012/2013 and the lowest is 34.14% in F/Y 2008/2009.

On the basis of mean ratio of loan and advances to total working fund, it can be said that KBL has the highest mean ratio of 72.17%, followed by BOK with mean ratio 69.532%, NBL by 63.86 and then SCBNL with 42.57%. The combine mean of the four banks is 49.62%. Which mean, KBL has strong position to mobilize its working fund as loan and advance for generating income than BOK, NBL and SCBNL.

4.1.3 Profitability ratio

Profit is the must for any bank for its survival. And the profitability ratio helps to measure and indicate how efficient the bank is in profit generation. A higher ratio shows the higher efficiency of the bank. The following ratio has been computed under this profitability ratio type:

i) Return on loan and advances ratio

This ratio measures the earning capacity of the commercial banks through its fund mobilization as loan and advances. A high ratio indicates greater success to mobilize fund as loan and advances and vice-versa.

This ratio is calculated by dividing loan and advances by Net Profit (**for details see Appendix- H**). The ratio has been presented through the help of the following table:

Table No.11

Return on Loan and Advances Ratio (%)				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	3.28	1.76	3.73	7.49
2009/2010	3.05	2.14	3.52	6.79
2010/2011	3.46	1.71	3.51	6.07
2011/2012	3.22	1.56	4.07	5.96
2012/2013	2.73	1.50	4.80	5.33
Mean	3.14	1.73	3.92	6.32
Combine mean				3.02

Source: Appendix-H

From the above comparative table, BOK's ratios are almost constant throughout the period. Highest ratio of BOK is 3.46% in F/Y 2010/2011 and lowest 2.73% in F/Y 2012/2013. KBL ratio is almost constant however the highest ratio is 2.14% in F/Y 2009/2010 and lowest is 1.50% in F/Y 2012/2013. NBL has the highest ratio of 4.80% in the F/Y 2012/2013 and the lowest ratio is 3.51% in the F/Y 2010/2011. Whereas the SCBNL's ratio is in decreasing trend and has the highest ratio of 7.49% in the F/Y 2008/2009 and the lowest ratio is 5.35% in the F/Y 2012/2013. Comparing the mean ratio the combine mean is 3.03%. SCBNL has the highest mean ratio of 6.33% followed by NBL with 3.93% then BOK with 3.2% and KBL 1.73%. The mean ratio specify that SCBNL has been successful in maintaining its higher return on loan and advances in comparison to other three banks under study.

ii) Return on total working fund ratio

Return on total working fund (ROA) ratio measures the profitability with respect to each financial resources investment of bank's assets. If the bank's total working fund is well managed and effectively utilized, the return on such assets will be higher. The ratio is calculated by dividing Net profit by Total working fund assets.

This ratio is calculated by dividing Total Working Fund by Net Profit (**for details see Appendix- I**). The following table has been presented in order to show the profitability position with respect to total assets of BOK, KBL, NBL, and SCBNL.

Table No.12

Return on Total Working Fund Ratio (%)				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	2.34	1.39	2.35	2.55
2009/2010	2.17	1.54	2.18	2.69
2010/2011	2.44	1.22	2.29	2.55
2011/2012	2.10	1.09	2.68	2.80
2012/2013	1.89	1.03	3.03	2.66
Mean	2.18	1.25	2.50	2.65
Combine mean				1.71

Source: Appendix - I

The above table reveals that the return on total assets of BOK is in constant trend. The highest ratio is 2.44% in F/Y 2010/2011 and the lowest is 1.89% in F/Y 2012/2013. Likewise KBL, NBL, SCBNL have also a fluctuating trend with highest ratio of 1.54% in the F/Y 2009/2010, 3.03% in the F/Y 2012/2013, 2.80% in F/Y 2011/2012 respectively. The lowest ratio of KBL, NBL, and SCBNL is 1.03% in the F/Y 2012/2013, 2.18% in F/Y 2009/2010 and 2.66% in 2012/2013.

Through the perspective of mean ratio The Combine mean of the four banks is 1.72. SCBNL has the highest mean ratio of 2.65% followed by NBL with 2.51%, BOK with 2.188% and KBL by 1.25%. From this analysis it seems that SCBNL with its highest mean among the four banks is able to earn high profit on total working fund.

iii) Total interest earned to total loan and advances ratio

Total interest earned to Total Loan and Advances Ratio measures the income as interest from total loan and advances. Interest income could be increased by embracing good issuing and recovery credit policy. High return shows the soundness of credit policy.

This ratio is calculated by dividing total Interest earned by Total Loan and advances (for details see Appendix- J).The following table has been presented in order to show the total interest earned with respect to total loan and advances of BOK, KBL, NBL and SCBNL.

Table No.13

Total interest earned to Total Loan and Advances Ratio				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	5.35	3.82	5.96	9.81
2009/2010	5.80	4.61	6.43	9.18
2010/2011	6.68	4.68	6.04	9.30
2011/2012	6.03	4.64	7.14	9.51
2012/2013	5.45	5.04	7.58	8.42
Mean	5.86	4.55	6.63	9.24
Combine mean				5.25

Source: Appendix -J

The above table discloses that the total interest earned to total loan and advances ratio of BOK has increasing trend up to F/Y 2011/2012 and then it has decreased in F/Y 2012/2013. The highest ratio of BOK is 6.68% in F/Y 2010/2011 and the lowest is 5.35% in F/Y 2008/2009. Likewise the ratios of KBL,NBL and SCBNL is in increasing trend the highest ratio is 5.04%,7.58%,9.81% in F/Y 2012/2013,2012/2013 ,2008/2009 respectively and the lowest is 3.82%,5.96,8.42 in F/Y 2008/2009, 2008/2009, 2012/2013 respectively.

Computing through the mean ratio point of view the combine mean of the banks is 5.26%. SCBNL has the highest mean total interest to total loan and advances ratio of 9.24% Whereas, NBL stood second with mean ratio 6.63% and BOK stood third with mean ratio of 5.86%. KBL has the least mean ratio of 4.56%.

4.1.4 Risk ratios

The possibility of risk makes bank's investment a challenging task. Bank has to take risk to get return on its investment. Higher the risk higher will be the return on investment. So banks operating for high profit have to accept the risk and manage it efficiently.

Through following ratios, efforts have been made to measure the level of risk essential for the banks BOK, KBL, NBL, and SCBNL under study.

4.1.4.1 Liquidity risk ratio

The liquidity risk of the bank defines liquidity need for its deposit. The ratio of cash and bank balance to total deposit is the indicator of bank liquidity need. Cash balance, Balance with Nepal Rastra Bank, and Money at Call and Short Notice are considered as banks liquidity sources and deposits as the liquidity need. A higher liquidity indicates less risk and less profit and vice-versa.

The ratio is computed by dividing liquid fund by total deposit (**for details see Appendix K**). Through the help of following table liquidfund to Total Deposit Ratio has been presented:

Table No.14

	Liquid Fund To Total Deposit Ratio			
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	11.79	10.30	10.37	12.18
2009/2010	10.20	13.52	9.27	8.51
2010/2011	7.91	8.84	9.39	17.18
2011/2012	12.96	17.13	10.10	20.76
2012/2013	10.94	15.52	11.88	20.99
Mean	10.76	13.06	10.20	15.92
Combine mean				9.98

Source: Appendix-K

The above table shows that the comparative liquidity risk ratio of BOK, KBL and NBL has a fluctuating trend. Whereas, SCBNL's ratio is decrease in F/Y 2009/2010 and started to increase over the period. The highest and lowest ratio of BOK is 12.96% in F/Y 2011/2012 and 7.91% in F/Y 2010/2011. KBL has the highest ratio of 17.13% in F/Y 2011/2012 and lowest of 8.84% in F/Y 2010/2011. Likewise, NBL has highest and lowest

ratio of 11.88% and 9.27% in F/Y 2012/2012 and 2009/2010. On the other hand, SCBNL has 20.99% of highest ratio in F/Y 2012/2013 and lowest of 8.51% in F/Y 2009/2010. The highest mean ratio of 15.92% followed by KBL, and BOK with 13.06%, 10.76% then NBL with the lowest mean ratio of 10.20%. Which shows the highest efficiency of NBL and the lowest of SCBNL.

4.1.4.2 Credit risk ratio and loan loss provisioning

i) Credit risk ratio

Bank utilizes its collected fund in providing credit to different sectors. While making the investment, bank examines the credit risk involved in the project which may be the risk of default or the non-payment of loan.

The credit risk ratio is computed by dividing NPL by Total Loans and Advances (**For details see Appendix L1**). The following table has been presented for the comparative credit risk ratio of the BOK, KBL, NBL, and SCBNL under study period.

Table No.15

Non-Performing Loans To Total Loans and Advances Ratio				
F/Y	BOK	NIBL	NBL	SCBNL
2008/2009	1.29	0.43	0.81	0.66
2009/2010	1.54	0.50	1.50	0.61
2010/2011	1.86	1.14	1.80	0.62
2011/2012	2.35	2.26	2.40	0.78
2012/2013	1.53	4.00	2.18	0.77
Mean	1.74	1.66	1.73	0.68
Combine mean				1.16

Source: Appendix – L1

The table states that the BOK's Credit Risk ratios are in increasing trend up to F/Y 2011/2012 but it has slightly decreased in the F/Y 2012/2013. The highest ratio is 2.35% in F/Y 2011/2012 and the lowest ratio is 1.29% in 2008/2009. As same, the ratio of KBL is in increasing trend with highest ratio of 4% in F/Y 2012/2013 and lowest 0.43% in F/Y 2008/2009. The ratios of NBL are in fluctuating trend with highest ratio 2.40% in F/Y 2011/2012 and the lowest is 0.81% in F/Y 2008/2009. The ratios of SCBNL are also in

fluctuating trend with the highest ratio 0.78% in F/Y 2011/2012 and the lowest is 0.61% in F/Y 2009/2010.

Through the mean ratio point of view, the combine mean is 1.16% and NBL has the highest NPL to total loans and advances ratio with 1.74% in comparison to BOK with 1.71%, KBL with 1.66% and SCBNL with lowest 0.69%. The mean ratios of the banks under study show that the SCBNL has the lowest NPL with respect to its total therefore, the performance of SCBNL is best among four banks.

ii) Loan loss provision to total loan and advances ratio

Loan loss provision to total loan and advances describes the quality of assets that a bank holding. The amount of loan loss provision is balance sheet refers to general loan loss provision. The provision for loan loss reflects the increasing probability of non-performing loan. The increment in loan loss provision result a decreased profit and thereby decrease in dividend payment but its positive impact is that it strengthens financial conditions of the banks by controlling credit risks related to deposits. So it can be said that bank suffer from it for short term while the good financial conditions and safety of loans will make bank's prosperity resulting increasing profits for long term.

The low ratio indicates the good quality of assets in total volume of loan and advances and high ratio indicates more risky assets in total volume of loan and advances.

This ratio is computed by dividing loan loss provision by loan and advances (**For details see Appendix L2**). The loan loss provision to loan and advances ratio has been presented through the help of the following table:

Table No. 16

Loan Loss Provision To Total Loan And Advances Ratio				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	2.03	1.37	1.48	1.46
2009/2010	2.27	1.35	2.36	1.37
2010/2011	2.79	2.05	2.29	1.27
2011/2012	2.68	2.75	3.03	1.28

2012/2013	3.87	3.87	2.74	1.35
Mean	2.72	2.27	2.38	1.34
Combine mean				1.74

Source: Appendix –L2

The above table exposes that the BOK and SCBNL ratios are in almost constant trend. The highest ratio of BOK is 3.87% in F/Y 2012/2013 and the lowest ratio is 2.03% in 2008/2009 and highest ratio of SCBNL is 1.46% in F/Y 2008/2009 and the lowest ratio of SCBNL is 1.28% in 2011/2012. Whereas the ratios of KBL and NBL are in fluctuating trend with highest ratio of KBL and NBL is 3.87% in F/Y 2012/2013, 3.03% in F/Y 2011/2012 and the lowest is 2.03% and 1.48% in F/Y 2008/2009.

Through the mean ratio point of view the combine mean is 1.75 and BOK has the highest loan loss provision to total loan and advances ratio of 2.73% followed by NBL with 2.38% mean ratio, 2.27% by KBL and then by SCBNL with lowest mean ratio 1.35%. These results indicate the better performance of SCBNL among four banks.

4.1.5 Adequacy of loan loss provisioning

Nepal Rastra Bank has set up directives regarding the maintenance of loan loss provision for different types of loan of commercial banks. In this way, this analysis comprises the adequacy of loan loss provision as per NRB directives of the sample banks for the study period. Adequacy is measured by computing the ratios of loan loss provisioning to loans and advances of different classified loan.

i) Pass loan provision to total pass loan ratio

The pass loan provision to total pass loan ratio shows that whether the Banks under study are complying with the directives issued by the Nepal Rastra Bank. This ratio is computed by dividing passloan provision by Total Pass Loan (**For details see Appendix M**).

Table No. 17

Pass Loan Provision To Total Pass Loan Ratio				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	0.99	0.99	1.00	0.99

2009/2010	0.99	0.99	1.02	0.99
2010/2011	1.00	0.99	1.00	0.99
2011/2012	0.99	0.99	1.00	0.9
2012/2013	0.99	0.99	1.00	1.00
Mean	0.99	0.99	1.00	0.97
Combine mean				0.79

Source: Appendix M

The above table represents the ratios of total pass loan provision to total loan of BOK, KBL, NBL and SCBNL for five financial years starting from F/Y 2008/2009 to F/Y 2012/2013. The pass loan provision to total pass loan ratio of BOK, KBL, NBL and SCBNL are almost in constant trend around 0.99% to 1%.

From mean ratio point of view two of the four banks have been able to maintain the pass loan provision of at least 1% of total pass loan. However the level of consistency of these banks under study has been different. NBL's ratio is much more consistent with 1% than that of KBL with 0.99%.

Overall with all the analysis which has been made above, we could conclude that BOK, KBL, NBL and SCBNL have been able to maintain the pass loan provision of at least 1% of total pass loan as according to NRB directives.

ii) Substandard loan loss provision to total substandard loan ratio

The substandard loan loss provision to total substandard loan ratio shows that whether the Banks under study are complying with the directives issued by the Nepal Rastra Bank. This ratio is computed by dividing Substandard Loan Loss provision by Total Substandard Loan **(For details see Appendix N).**

Table No. 18

Substandard Loan Loss provision to Total Substandard Loan Ratio				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	25	44.44	38.93	23.52
2009/2010	18.18	20	23.72	24
2010/2011	25	22.22	24.70	24.70
2011/2012	24.21	23.25	24.69	25
2012/2013	24.24	21.73	25	24.41
Mean	23.32	26.32	27.40	24.32
Combine Mean				20.28

Source: Appendix - N

The above table describes the ratios of substandard loan loss provision to total substandard loan of BOK, KBL, NBL and SCBNL. The substandard loan loss provision to total substandard loan ratio of BOK, KBL, NBL and SCBNL has a fluctuating trend. Its highest and lowest ratio is around 25% .

From mean ratio point of view only KBL and NBL has been able to maintain the substandard loan loss provision of at least 25% of total substandard loan according to the directives of NRB where as other banks BOK and SCBNL have failed to comply with the set standard.

iii) Provision for doubtful debt to total doubtful debt ratio

The Provision for Doubtful Debt To Total Doubtful Debt Ratio shows that whether the Banks under study are complying with the directives issued by the Nepal Rastra Bank. This ratio is computed by dividing Provision for Doubtful Debt by Total Doubtful Debt

(For details see Appendix O).

Table No. 19

Provision for Doubtful Debt To Total Doubtful Debt Ratio				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	47.61	96.77	51.11	81.81
2009/2010	50	50	50	50
2010/2011	50	44.44	50	33.33
2011/2012	50	50	50	50
2012/2013	50	50	50	50
Mean	49.52	58.24	50.22	53.02
Combine Mean				42.20

Source: Appendix- O

The above table illustrates the Provision for Doubtful Debt to Total Doubtful Debt Ratio of BOK, KBL, NBL and SCBNL. The Provision for Doubtful Debt to Total Doubtful Debt Ratio of BOK is almost constant. Its highest ratio is 50% in F/Y 2009/2010 to F/Y 2012/2013 and the lowest is 47.61% in F/Y 2008/2009. Similarly, KBL has also fluctuating trend in its ratio. Its highest ratio is 97.7% in F/Y 2008/2009 and the lowest is 44.04% in F/Y 2010/2011. On the other hand NBL ratio is in constant trend. However, SCBNL has also fluctuating trend in its ratio, its highest ratio is 81.81% in F/Y 2008/2009 and the lowest is 33.33% in F/Y 2010/2011.

From mean ratio point of view KBL, NBL and SCBNL has been able to maintain the provision for doubtful debt of at least 50% of total doubtful debt according to the directives of NRB whereas BOK has failed to comply with the set standard.

iv) Provision for bad debt to total bad debt ratio

The Provision for Bad Debt to Total Bad Debt Ratio shows that whether the Banks under study are complying with the directives issued by the Nepal Rastra Bank or not. This ratio is computed by dividing Provision for Bad Debt by Total Bad Debt (**For details see Appendix P**).

Table No. 20

Provision for Bad Debt To Total Bad Debt Ratio				
F/Y	BOK	KBL	NBL	SCBNL
2008/2009	98.48	100	90.76	100
2009/2010	99.42	100	99.00	100
2010/2011	100	100	98.97	100
2011/2012	100	100	99.36	100
2012/2013	117.15	100	99.85	100
Mean	103.01	100	97.58	100
Combine Mean				80.12

Source: Appendix- P

From the above table it seems that the Provision for Bad Debt to Total Bad Debt ratios of both BOK and NBL have fluctuating trend during the review period. The highest ratio of NBL has been observed to be 117.15% in F/Y 2012/2013 and the lowest is 98.48% in F/Y 2008/2009. Whereas the highest ratio of NBL is 99.85% in F/Y 2012/2013 and the lowest is 90.76% in F/Y 2008/2009. But the ratios of SCBL and KBL have been stable to 100% throughout the review period starting from F/Y 2008/2009 to F/Y 2012/2013.

From mean ratio point of view only SCBNL and KBL have been able to maintain the provision for bad debt of 100% of total bad debt according to the directives of NRB. However, BOK also maintains minimum standard i.e., 103.01% which is also better. whereas NBL has failed to comply with the set standard.

4.2 Statistical analysis

Under this topic, some statistical tools such as co-efficient of correlation analysis between different variables are used to achieve the objective of the study.

4.2.1 Co-efficient of correlation analysis

Under this heading, Karl Pearson's co-efficient of correlation is used to find out the relationship between total deposit and loan and advances, total deposit and total investment, Interest earned to Total loan and advances and loan and advances to total assets.

i) Co-efficient of correlation between total deposit and loan and advances

The Co-efficient of correlation between total deposit and loan and advances measures the degree of relationship between two variables. In our analysis, total deposit is an independent variable(X) and loan and advances is the dependent variable(Y). The main objective of computing ‘r’ between these two variables is to justify whether total deposit are significantly used as loan and advances in proper way or not.

The following table shows the value of ‘r, r², P.Er and 6 P.Er between total deposit and loan and advances of BOK, KBL, NBL and SCBNL during the study period. **(For details see Appendix 1, 2, 3 and 4.**

Table No. 21

Correlation between Total Deposit and Loan and Advances				
Bank	Evaluation Criteria			
	R	r ²	P.Er.	6P.Er.
BOK	0.97	0.94	0.001	0.10
KBL	0.99	0.98	0.006	0.03
NBL	0.98	0.96	0.009	0.05
SCBNL	0.77	0.59	0.12	0.73

Source: Appendix – 1, 2, 3 and 4

The above table reveals that the coefficient of correlation between deposit and loan and advances of BOK, KBL and NBL is 0.97, 0.99, and 0.98 which we can say that there is the highly positive relationship between these two variables. On the other hand, the coefficient of correlation between deposit and loan and advances of SCBNL is also positive. Moreover, the value of coefficient of determination (r²) of BOK, KBL and NBL is 0.94, 0.98, 0.96, which means 94%, 98%, 96%, of variation in dependent variable i.e. loan and advances has been explained by the independent variable i.e. total deposit. Similarly, considering the value of ‘r’ and comparing it with six times of probable error which is 0.10, 0.03, 0.05, and 0.73 it could be said that the value of ‘6P.Er’ is significant. Moreover it could be said that the higher value of ‘r’ than the 6 P.E. (r = 0.97, 0.99, 0.98, 0.77 > 6 P.E. = 0.10, 0.03, 0.05, 0.73) indicated that the relationship between total deposit and loan and advances was statistically significant. Hence, there is a significant relationship between total deposit and loan and advances of BOK, KBL, NBL and SCBNL.

From the above analysis, we can conclude that there is the positive relationship between the total deposit and loan and advances of BOK, KBL, NBL and SCBNL. The relationship between the total deposit and loan and advances is significant in case of all these three banks. However, the value of r^2 is different in either case. In case of BOK and SCBNL the value of r^2 comparatively low than that of KBL and NBL, but yet shows good percentage of dependency. It indicates that the increase in loan and advances is due to increase in deposits or successful mobilization of deposit in both four banks and other factors have nominal role in increment of loan and advances as compare to deposit.

ii) Co-efficient of correlation between net income and loan and advances

The correlation coefficient between Net Income and loan and advances measures the degree of relationship between these two variables. Here Net Income is dependent variable (X) and loan and advances is the independent variable (Y). The objective of computing 'r' between these two variables is to justify the significance of loan and advances to generate Net Income.

The following table shows the value of 'r', r^2 , P.Er and 6 P.Er between Net Income and loan and advances of BOK, KBL, NBL and SCBNL during the study period. (For details see Appendix 5, 6, 7 and 8).

Table No. 22

Correlation between Net Income and Loan and Advances				
Bank	Evaluation Criteria			
	R	r²	P.Er.	6P.Er.
BOK	0.80	0.64	0.10	0.63
KBL	0.24	0.05	0.03	0.21
NBL	0.94	0.88	0.03	0.18
SCBNL	0.99	0.98	0.06	0.38

Source: Appendix 5, 6, 7 and 8

The table reveals that the coefficient of correlation between Net Income and loan and advances of BOK, KBL, NBL, and SCBNL is 0.80, 0.24, 0.94, and 0.99 which we can say that there is the positive relationship between these two variables. Moreover, the value of coefficient of determination (r^2) is 0.64, 0.05, 0.88, 0.98 which means 64%, 5%, 88%, 98% of variation in dependent variable i.e. Net Income has been explained by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed as 0.91... and comparing it with six times of probable error which is 0.3, it could be said that the value of 'r' is significant. Moreover it could be said that there is a significant relationship between Net Income and loan and advances of NABIL. Moreover it could be said that the higher value of 'r' than the 6 P.E. ($r = 0.80, 0.24, 0.94, 0.99 > 6 \text{ P.E.} = 0.63, 0.21, 0.18, 0.38$) indicated that the relationship between net income and loan and advances was statistically significant. Hence, there is a significant relationship between net income and advances of BOK, KBL, NBL and SCBNL.

iii) Correlation between interest earned and loan and advances

The correlation coefficient between interests earned and loan and advances measures the degree of relationship between these two variables. Here interest earned is dependent variable (X) and loan and advances is the independent variable (Y). The objective of computing 'r' between these two variables is to justify the significance of loan and advances to earn interest.

The following table shows the value of 'r', r^2 , P.Er and 6 P.Er between interest earned and loan and advances of BOK, KBL, NBL and SCBNL during the study period. (**For**

details see Appendix 9, 10, 11 and 12).

Table No.23

Correlation between Interest Earned to Loan and Advances				
Bank	Evaluation Criteria			
	R	r ²	P.Er.	6P.Er.
BOK	0.85	0.72	0.079	0.47
KBL	0.94	0.88	0.27	1.62
NBL	0.97	0.94	0.014	0.089
SCBNL	0.96	0.92	0.010	0.064

Source: Appendix 9, 10, 11 and 12

The table reveals that the coefficient of correlation between interest earned and loan and advances of BOK,NBL,SCBNL is 0.85,0.97,0.96 Moreover, the value of coefficient of determination (r²) is 0.72,0.94,0.92 which means 72%,94%,92% of variation in dependent variable i.e. interest earned has been explained by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed and comparing it with six times of probable error which is 0.47, 0.089, 0.064, it could be said that the value of 'r' is significant. Moreover it could be said that the higher value of 'r' than the 6 P.E. (r 0.85, 0.97, 0.96 > 6 P.E. = 0.47,0.089, 0.064) indicated that there is a significant relationship between interest earned and loan and advances of BOK,NBL,SCBNL.

However, coefficient of correlation between interest earned and loan and advances of KBL is 0.94; Accordingly, the value of coefficient of determination (r²) has been computed as 0.88, which reveals that 88% in the dependent variable has been explained by the independent variable. Similarly, considering the 6 P.Er. Which is 1.62, we can say that the relationship between the interest earned and loan and advances is insignificant. Since, the correlation coefficient between net profit and total loan was lower than the calculated 6 P.E., [i.e. r (0.94) < 6 P.E. (1.62), the relationship between net profit and total loan was statistically insignificant and thus it was not necessary that Interest earned should increase with the increase in loan and advances and vice versa.

iv) Correlation between non performing loan and loan & advances

The correlation coefficient between NPL and loan and advances measures the degree of relationship between these two variables. Here NPL is the dependent variable (X) and loan and advances is the independent variable (Y). The objective of computing 'r' between these

two variables is to justify how a unit increment in loan and advances affect in the unit of non-performing loan.

The following table shows the value of 'r', r^2 , P.Er and 6 P.Er between NPL and loan and advances of BOK, KBL, NBL and SCBNL during the study period. **(For details see Appendix 13, 14, 15 and 16).**

Table No.24

Correlation between Non performing Loan and Loan & Advances				
Bank	Evaluation Criteria			
	R	r^2	P.Er.	6P.Er.
BOK	0.65	0.42	0.17	1.03
KBL	0.97	0.94	0.022	0.13
NBL	0.97	0.94	0.015	0.090
SCBNL	0.95	0.90	0.028	0.16

Source: Appendix 13, 14, 15 and 16

The above table reveals that the coefficient of correlation between NPL and loan and advances of BOK is 0.65. Moreover, the value of coefficient of determination (r^2) is 0.42 which means 42.% of variation in dependent variable i.e. NPL has been explained by the independent variable i.e. loan and advances. Similarly, considering the value of 'r' which has been computed and comparing it with six times of probable error which is 1.03. Since, the correlation coefficient between NPL and total loan was lower than the calculated 6 P.E., [i.e. $r (0.65) < 6 P.E. (1.03)$], the relationship between NPL and total loan was statistically insignificant and thus it was not necessary that NPL should increase with the increase in loan and advances and vice versa.

Likewise, coefficient of correlation between NPL and loan and advances of KBL, NBL, and SCBL is 0.97, 0.97, and 0.95. Accordingly, the value of coefficient of determination (r^2), which is, 0.94, 0.94, 0.90. Which reveals that 94.%, 94%, and 90% Similarly. Besides this considering the 6 P.Er. Which are 0.13, 0.090, 0.16 therefore, could be said that the higher value of 'r' than the 6 P.E. ($r 0.94, 0.94, 0.90 > 6 P.E. = 0.13, 0.090, 0.16$) indicated that there is a significant relationship between NPL and loan and advances of KBL, NBL, SCBL. Hence, there were positive relationship with loan and advances with NPL.

4.3 Major findings of the study

The major findings of the study are divided on the basis of financial and statistical data of BOK, KBL, NBL and SCBL, which are given below:

Liquidity ratio

- The mean current ratio of BOK is computed as 0.78 times, KBL's 1.34 times and NBL's 0.98 times and SCBNL's is 1.29. From which we can say that KBL's ratios are more uniform than that of BOK, SCBNL and NIBL in comparison. However, All Banks of the banks could not maintain the conventional standard of 2:1.
- On average of 5 years of review period, Liquid Fund to total deposit ratio of BOK, KBL, NBL and SCBL are 10.76, 13.06, 10.20, and 15.92% respectively. After examining the ratio we can say that all the sample banks do not differ significant with respect to this ratio.
- The mean ratio of Liquid fund to current asset ratio of the banks is in fluctuating trend and the ratio of SCBNL is highest and lowest of NBL which indicates high liquidity position in the banks.
- The mean ratio of loan and advances to current asset of the sample banks are in in fluctuating trend and indicate banks are generating more income from loan and advances.

Assets management ratio

- The mean ratio of loan and advances to total deposit of BOK, KBL, NBL, and SCBNL are 80.56%, 84.05%, 73.68% and 48.84% respectively. The utilization of Total deposit as loan and advances of KBL seems to be slightly higher than that of BOK and NBL, whereas SCBNL's utilization of Total deposit as loan and advances is much lesser than that of the other three banks.
- The mean ratio of Total Investment to total deposit of SCBNL is highest and lowest of KBL. The utilization of Total deposit as Investment in different types of securities issued by government and other financial and non-financial companies of SCBNL is good.
- The mean ratio of Loan and Advances to total working fund of BOK, KBL, NBL, and SCBNL are 69.53%, 72.17%, 63.86% and 42.57% respectively. KBL seems to have much higher mean ratio than that of BOK, NBL and SCBNL. Whereas SCBNL has the lowest mean ratio among the three banks under study

Profitability ratio

- The mean ratio of return on Loan and Advances of BOK, KBL, NBL and SCBNL are 3.15%, 1.73%, 3.93% and 6.33% respectively. SCBNL seems to have much higher return from loan and advances, followed by NBL, BOK, and then KBL.
- The mean ratio of return on Total Working Fund of BOK, KBL, NBL and SCBNL are computed as 2.12%, 1.25%, 2.51%, and 2.65% respectively. All four sample banks have almost similar ratio however SCBNL has higher ratio whereas KBL has lowest ratio which indicates higher return and lower return on loan and advances.
- The mean ratio of Total Interest Earned to Total Loan and Advances of the banks are in fluctuating trend. SCBNL has higher ratio but KBL has lower ratio, which shows the better performance of the SCBNL.

Risk ratio

- Through computing liquidity risk ratio, the liquidity of SCBNL is highest among four banks i.e., 15.92% in contrast lowest of NBL i.e., 10.20%.
- The credit Risk ratio or Non-Performing Loan to Total Loan and Advances ratio of NBL is 1.74% which is the highest ratio in fact SCBNL is 0.69% which is lowest among four banks.
- The mean of Loan Loss Provision to Loan and Advances ratio of the sample banks are almost 2% however BOK has higher ratio and SCBNL has lower ratio.

Adequacy of loan loss provisioning

- On of BOK, KBL, NBL and SCBNL have been able to maintain the pass loan provision of at least 1% of the total pass loan as according to the NRB directives.
- On average only KBL and NABIL has been able to meet the standard set by the NRB even though it has failed to maintain the standard as set by NRB in each of the review year. Whereas BOK and SCBNL has maintained the standard as set by NRB in some of the review years but in aggregate both of the banks have failed to meet the standard of having substandard loan loss provision at least 25% of the total substandard loan.
- On average KBL, NBL, SCBNL have been able to meet the standard set by the NRB even though it has failed to maintain the standard as set by NRB in each of the review year. Similarly BOK has also been able to meet the standard on average and in each of the

review year as well but in aggregate it has failed to meet the standard of having provision for doubtful debt of at least 50% of the total doubtful debt.

- On average only BOK, has been able to meet the standard set by the NRB, it has maintained the standard as set by NRB in each of the review year but it failed to maintain NRB standard each year. Whereas, NBL has not maintain standard both on average and even in single year of review period. By contrast KBL and SCBNL have maintained 100% in each year of review period.

Co-efficient of correlation analysis

- Coefficients of correlation between Total Deposit and Loan and Advances of BOK, KBL, NBL, and SCBNL have a positive relationship. The relationship between the total deposit and loan and advances is significant in case of all these four banks. However, the value of r^2 is different in either case. In case of BOK and SCBNL the value of r^2 comparatively low than that of KBL and NBL. It indicates that the increase in loan and advances is due to increase in deposits or successful mobilization of deposit in both three banks and other factors have nominal role in increment of loan and advances as compare to deposit.
- There is a positive correlation between the Net Income and loan and advances of BOK, KBL, NBL, and SCBNL. The relationship between the Net Income and loan and advances is significant in case of all these four banks. However, the value of r^2 is different in each case. In case of KBL the value of r^2 comparatively low than that of three other banks.
- There is the positive correlation between the interest earned and loan and advances of BOK, NBL, and SCBNL. The relationship between the interest earned and loan and advances is significant in case of BOK, NBL, and SCBNL but insignificant in case of KBL. The value of r^2 is different in each case. In case of BOK and KBL the value of r^2 comparatively low than that of NBL and SCBNL.
- The relationship between the NPL and loan and advances is positive in case of KBL, NBL, and SCBNL. There is a significant relationship between the NPL and loan and advances However, the value of r^2 is different in each case. By contrast BOK has insignificant relationship between NPL and loan and advances.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATION

The last chapter of this study is the conclusions and recommendations developed from the comparative analysis of various aspects of the credit of the commercial banks by using some important financial as well as statistical tools. After completing the basic analysis required for the study the final and the most important tasks of the researcher is to summarize the study and recommend for the future importance. I am optimistic that the study that I have conducted would be meaningful to the top management of the concerned banks to initiate action and to achieve the anticipated results.

5.1 Summary and conclusion

From the analysis made during the study period of the concerned sample banks, certain conclusion has been derived after the financial as well as statistical tools have been measured on behalf of different aspect of the Credit Management of the concerned banks under study.

The liquidity position of BOK, KBL, NBL, and SCBNL have been satisfactory, the liquidity of each bank have been different though.

Likewise, the liquidity position of SCBNL and KBL is comparatively better than that of BOK and NBL. It has the highest average Liquid Fund to Total Deposit Ratio, Liquid Fund to Current Assets ratio and Loan and Advances to Current Assets Ratio. Overall, SCBNL shows that it is in good position to meet the daily cash requirement; however, it has to bear high cost of its liquid fund.

On the basis of Assets management ratio it has been concluded that KBL and BOK are in better position than NBL and SCBNL though on average SCBNL has the lowest total investment to total deposit ratio in comparison to three other banks. NBL and SCBNL have successfully utilized its deposit on loan and advances but has lower investment in other sectors. The total investment to total deposit ratio of SCBNL is highest among the four banks but KBL occupies a better position among the banks since it has the highest loan and advances to total working fund ratio.

Likewise compare to other two banks NBL has moderate average loan and advances to total deposit ratio, total investment to total deposit ratio and loan and advances to total working fund ratio. The Assets management ratio of NBL has been satisfactory according to the analysis made. However, SCBNL average loan and advances to total deposit ratio, total

investment to total deposit ratio and loan and advances to total working fund ratio are lowest so SCBNL is not in good condition in assets management.

On the basis of the analysis of profitability, in comparison among the banks SCBNL has the highest return on total working fund on average, return on loan and advances and total interest earned to total loan and advances ratio. Likewise NBL has also higher return on loan and advances and total interest earned to total loan and advances ratio on average behind the SCBNL but BOK has only a moderate return on total working fund ratio, return on loan and advances and total interest earned to total loan and advances ratio.

According to the analysis, on average KBL has the lowest return on loan and advances, total interest earned to total loan and advances ratio and return on total working fund among the four banks under study.

On the basis of the analysis of credit risk ratio, NBL has taken the higher credit risk with moderate credit risk provisioning followed by BOK with second highest credit risk and the highest provisioning against the NPL among the banks under study. Then KBL, which seems to be in the safe side with least NPL to total loan and advances ratio. SCBNL has least loan loss provisioning to total loan and advances ratio among the four banks under study.

On the basis of coefficient of correlation, Coefficients of correlation between Total Deposit and Loan and Advances of BOK, KBL, NBL, and SCBNL have a positive relationship. The relationship between the total deposit and loan and advances is significant in case of all these four banks. Again there is a positive correlation between the Net Income and loan and advances of BOK, KBL, NBL, and SCBNL. The relationship between the Net Income and loan and advances is significant in case of all these four banks. The relationship between the NPL and loan and advances is positive in case of KBL, NBL, and SCBNL. There is a significant relationship between the NPL and loan and advances. But by contrast BOK has insignificant relationship between NPL and loan and advances.

5.2 Recommendation

Recommendations are the final output of the whole study. It helps to carry positive information and proper way of improvement to concern banks BOK, KBL, NBL, and SCBNL and as well as other interest researcher in upcoming days. Various analyses have been done until this stage. On the basis of analysis and finding of the study, following suggestion and recommendation can be progressive to overcome weakness, inefficiency and satisfactory improvement policy of BOK, KBL, NBL, and SCBNL.

- The Liquid Fund to total deposit measures the availability of bank's highly liquid or immediate funds to meet its unanticipated calls on all types of deposits. The Liquid Fund of SCBNL with respect to deposit is healthier against the readiness to serve its customer's deposit than BOK, KBL, and NBL. It implies that better liquidity position of SCBNL. By contrast, a high ratio of non-earning cash and bank balance may unfit, which indicates the bank's unavailability to invest its fund in income generation areas. Thus SCBNL is suggested to invest in more productive sectors like short-term marketable securities, treasury bills etc. insuring enough liquidity which will help the bank to improve its profitability.
- To get success in competitive banking environment, depositor's money must be utilized as loan and advances. If it is neglected, then it could results to liquidity crisis in the bank and one of the main reasons for the bank's failure. It is found that KBL's loan and advances to total deposit ratio is comparatively the highest among the four banks followed by BOK, then NBL. and SCBNL's ratios seems much lower than that of KBL, BOK and NIBL so it is recommended that SCBNL should follow liberal policy, invest more and more percentage of total deposit in loan and advances and maintain more stability on the credit policy.
- There is highly positive correlation between the Total deposit and loan and advances of ofBOK, KBL, and NBL. So it is recommended for the banks under study especially for KBL to increase their total deposit to make more loan and advances, since correlation between the Total deposit and loan and advances of KBL is much higher compare to BOK, NBL and SCBNL.
- The loan loss provisioning and high volume of Non-performing loans of BOK and NBL is in increasing trend which is certainly not sign of efficient credit management. It is recommended to BOK and NBL to adopt sound credit collection policy and other two banks to maintain and implement its credit policy even more efficiently, which would

help them to decrease loan loss provision and non-performing loan. The policy should ensure rapid identification of delinquent loans, immediate contact with borrowers and continual follow-up until a loan recovery. The recovery of loan is the most challenging job for the bank. Therefore the banks must embrace a strengthened credit management.

- The banks under study are also recommended to strictly follow the NRB directives regarding the loan classification. Since it is found that the banks under study has not been able to maintain certain standards as set by the NRB.
- Banks should also regularly follow the credit customer to confirm that whether the customers have utilized their credit for the same purpose loyal at the time of taking credit from the bank.
- There has been communication gap between the banks even though they are on the same business of banking. Banks need to develop a mechanism for inter-bank transparency, a committee which will help the better understanding of the various types of risk, disseminate information regarding bad debts and frauds cases, minimize customer misleads and practice fair competition.

Well-timed and efficiently implementation of these remedial actions might be lead the bank towards the path of its continued success and future progress.

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APPENDIX: A**Current Ratio**

NBL(Rs. In Million)			
F/Y	Current Assets (Rs)	Current Liabilities(Rs)	Ratio (Times)
2008/2009	4818	5881	0.82
2009/2010	10272	7356	1.40
2010/2011	4707	4873	0.97
2011/2012	2407	3807	0.63
2012/2013	9077	8587	1.06

BOK(Rs. In Million)			
F/Y	Current Assets (Rs)	Current Liabilities(Rs)	Ratio (Times)
2008/2009	2359	2257	1.04
2009/2010	2164	2404	0.90
2010/2011	530	873	0.60
2011/2012	1348	4174	0.32
2012/2013	3280	3145	1.04

KBL (Rs. In Million)			
F/Y	Current Assets (Rs)	Current Liabilities(Rs)	Ratio (Times)
2008/2009	2640	3222	0.82
2009/2010	854	1235	0.69
2010/2011	1543	433	3.56
2011/2012	2186	4637	0.47
2012/2013	3735	3161	1.18

Standard Chartered(Rs. In Million)			
F/Y	Current Assets (Rs)	Current Liabilities(Rs)	Ratio (Times)
2008/2009	754	6030	0.12
2009/2010	1896	636	2.98
2010/2011	5,106	3,028	1.68
2011/2012	925	2486	0.37
2012/2013	4225	3261	1.29

APPENDIX: B

Liquid fund to Total Deposit Ratio

Standard Chartered (Rs. In Million)			
F/Y	Liquid fund(Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	4370	35871	12.18
2009/2010	2997	35182	8.51
2010/2011	6529	37999	17.18
2011/2012	7469	35965	20.76
2012/2013	8285	39466	20.99

NABIL (Rs. In Million)			
F/Y	Liquid fund (Rs)	Total Deposit (Rs)	Ratio
2008/2009	3875	37348	10.37
2009/2010	4304	46410	9.27
2010/2011	4671	49696	9.39
2011/2012	5559	55024	10.10
2012/2013	7563	63610	11.88

BOK (Rs. In Million)			
F/Y	Liquid fund (Rs)	Total Deposit (Rs)	Ratio(%)
2008/2009	2132	18083	11.79
2009/2010	2074	20315	10.20
2010/2011	1663	21018	7.91
2011/2012	3240	24991	12.96
2012/2013	3032	27700	10.94

KBL (Rs. In Million)			
F/Y	Liquid fund(Rs)	Total Deposit (Rs)	Ratio(%)
2008/2009	1619	15710	10.30
2009/2010	2358	17432	13.52
2010/2011	1503	16986	8.84
2011/2012	3768	21985	17.13
2012/2013	3930	25318	15.52

APPENDIX – C

Liquid fund to Current Assets Ratio

NABIL (Rs. In Million)			
F/Y	Liquid fund(Rs)	Current Assets (Rs)	Ratio (%)
2008/2009	3875	4818	80.42
2009/2010	4304	10272	41.90
2010/2011	4671	4707	99.23
2011/2012	5559	2407	23.95
2012/2013	7563	9077	83.32

KBL (Rs. In Million)			
F/Y	Liquid fund (Rs)	Current Assets (Rs)	Ratio
2008/2009	1619	2640	61.32
2009/2010	2358	854	27.11
2010/2011	1503	1543	97.40
2011/2012	3768	2186	172.36
2012/2013	3930	3735	10.22

BOK (Rs. In Million)			
F/Y	Liquid fund(Rs)	Current Assets (Rs)	Ratio
2008/2009	2132	2359	90.37
2009/2010	2074	2164	95.84
2010/2011	1663	530	313.77
2011/2012	3240	1348	240.35
2012/2013	3032	3280	92.43

SCBNL (Rs. In Million)			
F/Y	Liquid fund(Rs)	Current Assets (Rs)	Ratio
2008/2009	4370	754	579.57
2009/2010	2997	1896	158.06
2010/2011	6529	5,106	127.86
2011/2012	7469	925	807.45
2012/2013	8285	4225	196.09

APPENDIX - D**Loan and Advances to Current Asset Ratio**

NABIL (Rs. In Million)			
F/Y	Loan & Advances (Rs)	Current Assets (Rs)	Ratio (%)
2008/2009	27590	4818	572.64
2009/2010	32269	10272	314.14
2010/2011	38034	4707	808.03
2011/2012	41606	2407	172.54
2012/2013	46369	9077	510.84

KBL (Rs. In Million)			
F/Y	Loan & Advances (Rs)	Current Assets (Rs)	Ratio (%)
2008/2009	14593	2640	552.76
2009/2010	14765	854	1728.92
2010/2011	14626	1543	947.89
2011/2012	17614	2186	805.76
2012/2013	19369	3735	518.58

BOK			
(Rs. In Million)			
F/Y	Loan & Advances (Rs)	Current Assets (Rs)	Ratio (%)
2008/2009	14647	2359	620.89
2009/2010	16664	2164	770.05
2010/2011	17468	530	3295.84
2011/2012	18813	1348	1395.62
2012/2013	22555	3280	687.65

SCBNL			
(Rs. In Million)			
F/Y	Loan & Advances (Rs)	Current Assets (Rs)	Ratio (%)
2008/2009	13679	754	1814.19
2009/2010	15956	1896	841.56
2010/2011	18427	5,106	360.88
2011/2012	19575	925	2116.21
2012/2013	22828	4225	540.30

APPENDIX - E

Loan and Advances to Total Deposit Ratio

NABIL (Rs. In Million)			
F/Y	Loan & Advances (Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	27590	37348	73.87
2009/2010	32269	46410	69.53
2010/2011	38034	49696	76.53
2011/2012	41606	55024	75.61
2012/2013	46369	63610	72.89

KBL (Rs. In Million)			
F/Y	Loan & Advances (Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	14593	15710	92.88
2009/2010	14765	17432	84.70
2010/2011	14626	16986	86.10
2011/2012	17614	21985	80.11
2012/2013	19369	25318	76.50

BOK (Rs. In Million)			
F/Y	Loan & Advances (Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	14647	18083	80.99
2009/2010	16664	20315	82.02
2010/2011	17468	21018	83.10
2011/2012	18813	24991	75.27
2012/2013	22555	27700	81.42

SCBNL (Rs. In Million)			
F/Y	Loan & Advances (Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	13679	35871	38.13
2009/2010	15956	35182	45.35
2010/2011	18427	37999	48.49
2011/2012	19575	35965	54.42
2012/2013	22828	39466	57.84

APPENDIX - F**Total Investment to Total Deposit Ratio**

NABIL (Rs. In Million)			
F/Y	Total Investment (Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	10826	37348	28.98
2009/2010	13600	46410	29.30
2010/2011	49696	49696	100
2011/2012	14076	55024	25.58
2012/2013	16344	63610	25.69

KBL (Rs. In Million)			
F/Y	Total Investment (Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	1510	15710	9.61
2009/2010	2296	17432	13.17
2010/2011	3533	16986	20.79
2011/2012	2940	21985	13.37
2012/2013	4135	25318	16.33

BOK (Rs. In Million)			
F/Y	Total Investment (Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	2783	18083	15.39
2009/2010	3269	20315	16.09
2010/2011	4286	21018	20.39
2011/2012	5246	24991	20.99
2012/2013	4757	27700	17.17

SCBNL (Rs. In Million)			
F/Y	Total Investment (Rs)	Total Deposit (Rs)	Ratio (%)
2008/2009	20236	35871	56.41
2009/2010	19847	35182	56.41
2010/2011	17258	37999	45.41
2011/2012	12938	35965	35.97
2012/2013	12753	39466	32.31

APPENDIX – G

Loan and Advances to Total Working Fund Ratio

NABIL (Rs. In Million)			
F/Y	Loan And Advances (Rs)	Total Working Fund (Rs)	Ratio (%)
2008/2009	27590	43867	62.89
2009/2010	32269	52150	61.87
2010/2011	38034	58141	65.41
2011/2012	41606	63193	65.83
2012/2013	46369	73241	63.31

KBL (Rs. In Million)			
F/Y	Loan And Advances (Rs)	Total Working Fund (Rs)	Ratio (%)
2008/2009	14593	18538	78.71
2009/2010	14765	20485	72.07
2010/2011	14626	20491	71.37
2011/2012	17614	25131	70.08
2012/2013	19369	28222	68.63

BOK (Rs. In Million)			
F/Y	Loan And Advances (Rs)	Total Working Fund (Rs)	Ratio (%)
2008/2009	14647	20496	71.46
2009/2010	16664	23396	71.22
2010/2011	17468	24757	70.55
2011/2012	18813	28881	65.13
2012/2013	22555	32545	69.30

SCBNL (Rs. In Million)			
F/Y	Loan And Advances (Rs)	Total Working Fund (Rs)	Ratio (%)
2008/2009	13679	40066	34.14
2009/2010	15956	40213	39.67
2010/2011	18427	43810	42.06
2011/2012	19575	41677	46.96
2012/2013	22828	45631	50.02

APPENDIX – H

Return On Loan And Advances Ratio

NABIL (Rs. In Million)			
F/Y	Net Profit(Rs)	Loan & Advances (Rs)	Ratio (%)
2008/2009	1031	27590	3.73
2009/2010	1138	32269	3.52
2010/2011	1337	38034	3.51
2011/2012	1696	41606	4.07
2012/2013	2226	46369	4.80

KBL (Rs. In Million)			
F/Y	Net Profit(Rs)	Loan & Advances (Rs)	Ratio (%)
2008/2009	258	14593	1.76
2009/2010	316	14765	2.14
2010/2011	251	14626	1.71
2011/2012	275	17614	1.56
2012/2013	291	19369	1.50

BOK (Rs. In Million)			
F/Y	Net Profit(Rs)	Loan & Advances (Rs)	Ratio (%)
2008/2009	481	14647	3.28
2009/2010	509	16664	3.05
2010/2011	605	17468	3.46
2011/2012	607	18813	3.22
2012/2013	617	22555	2.73

SCBNL (Rs. In Million)			
F/Y	Net Profit(Rs)	Loan & Advances (Rs)	Ratio (%)
2008/2009	1025	13679	7.49
2009/2010	1085	15956	6.79
2010/2011	1119	18427	6.07
2011/2012	1168	19575	5.96
2012/2013	1217	22828	5.33

APPENDIX - I

Return on Total Working Fund Ratio

NABIL (Rs. In Million)			
F/Y	Net Profit(Rs)	Total Working Fund (Rs)	Ratio (%)
2008/2009	1031	43867	2.35
2009/2010	1138	52150	2.18
2010/2011	1337	58141	2.29
2011/2012	1696	63193	2.68
2012/2013	2226	73241	3.03

BOK (Rs. In Million)			
F/Y	Net Profit(Rs)	Total Working Fund (Rs)	Ratio (%)
2008/2009	481	20496	2.34
2009/2010	509	23396	2.17
2010/2011	605	24757	2.44
2011/2012	607	28881	2.10
2012/2013	617	32545	1.89

KBL (Rs. In Million)			
F/Y	Net Profit(Rs)	Total Working Fund (Rs)	Ratio (%)
2008/2009	258	18538	1.39
2009/2010	316	20485	1.54
2010/2011	251	20491	1.22
2011/2012	275	25131	1.09
2012/2013	291	28222	1.03

SCBNL (Rs. In Million)			
F/Y	Net Profit(Rs)	Total Working Fund (Rs)	Ratio (%)
2008/2009	1025	40066	2.55
2009/2010	1085	40213	2.69
2010/2011	1119	43810	2.55
2011/2012	1168	41677	2.80
2012/2013	1217	45631	2.66

APPENDIX - J

Total Interest Earned to Loan and Advances

NABIL (Rs. In Million)			
F/Y	Total Interest Earned	Loan and Advances	Ratio (%)
2008/2009	1645	27590	5.96
2009/2010	2078	32269	6.43
2010/2011	2298	38034	6.04
2011/2012	2971	41606	7.14
2012/2013	3516	46369	7.58

BOK (Rs. In Million)			
F/Y	Total Interest Earned	Loan and Advances	Ratio (%)
2008/2009	784	14647	5.35
2009/2010	967	16664	5.80
2010/2011	1167	17468	6.68
2011/2012	1136	18813	6.03
2012/2013	1230	22555	5.45

KBL			
(Rs. In Million)			
F/Y	Total Interest Earned	Loan and Advances	Ratio (%)
2008/2009	558	14593	3.82
2009/2010	682	14765	4.61
2010/2011	685	14626	4.68
2011/2012	819	17614	4.64
2012/2013	978	19369	5.04

SCBNL			
(Rs. In Million)			
F/Y	Total Interest Earned	Loan and Advances	Ratio (%)
2008/2009	1343	13679	9.81
2009/2010	1466	15956	9.18
2010/2011	1715	18427	9.30
2011/2012	1863	19575	9.51
2012/2013	1923	22828	8.42

APPENDIX – K

Liquidity Risk Ratio

NABIL (Rs. In Million)			
F/Y	Liquid Fund (Rs)	Total Deposit(Rs)	Ratio (%)
2008/2009	3875	37348	10.37
2009/2010	4304	46410	9.27
2010/2011	4671	49696	9.39
2011/2012	5559	55024	10.10
2012/2013	7563	63610	11.88

BOK (Rs. In Million)			
F/Y	Liquid Fund (Rs)	Total Deposit(Rs)	Ratio (%)
2008/2009	2132	18083	11.79
2009/2010	2074	20315	10.20
2010/2011	1663	21018	7.91
2011/2012	3240	24991	12.96
2012/2013	3032	27700	10.94

KBL			
(Rs. In Million)			
F/Y	Liquid Fund (Rs)	Total Deposit(Rs)	Ratio (%)
2008/2009	1619	15710	10.30
2009/2010	2358	17432	13.52
2010/2011	1503	16986	8.84
2011/2012	3768	21985	17.13
2012/2013	3930	25318	15.52

SCBNL			
(Rs. In Million)			
F/Y	Liquid Fund (Rs)	Total Deposit(Rs)	Ratio (%)
2008/2009	4370	35871	12.18
2009/2010	2997	35182	8.51
2010/2011	6529	37999	17.18
2011/2012	7469	35965	20.76
2012/2013	8285	39466	20.99

APPENDIX – L1

Credit Risk Ratio

NABIL (Rs. In Million)			
F/Y	Non-Performing Loans (Rs)	Loan & Advances(Rs)	Ratio (%)
2008/2009	224	27590	0.81
2009/2010	486	32269	1.50
2010/2011	686	38034	1.80
2011/2012	1000	41606	2.40
2012/2013	1015	46369	2.18

BOK (Rs. In Million)			
F/Y	Non-Performing Loans (Rs)	Loan & Advances(Rs)	Ratio (%)
2008/2009	190	14647	1.29
2009/2010	257	16664	1.54
2010/2011	326	17468	1.86
2011/2012	443	18813	2.35
2012/2013	346	22555	1.53

KBL (Rs. In Million)			
F/Y	Non-Performing Loans (Rs)	Loan & Advances(Rs)	Ratio (%)
2008/2009	64	14593	0.43
2009/2010	75	14765	0.50
2010/2011	167	14626	1.14
2011/2012	399	17614	2.26
2012/2013	776	19369	4.00

SCBNL (Rs. In Million)			
F/Y	Non-Performing Loans (Rs)	Loan & Advances(Rs)	Ratio (%)
2008/2009	91	13679	0.66
2009/2010	98	15956	0.61
2010/2011	115	18427	0.62
2011/2012	154	19575	0.78
2012/2013	177	22828	0.77

APPENDIX – L2

Loan Loss Provision to Total Loan And Advances Ratio

NABIL			
(Rs. In Million)			
F/Y	Loan Loss Provision (Rs)	Loan & Advances(Rs)	Ratio (%)
2008/2009	409	27590	1.48
2009/2010	762	32269	2.36
2010/2011	871	38034	2.29
2011/2012	1262	41606	3.03
2012/2013	1275	46369	2.74

KBL			
(Rs. In Million)			
F/Y	Loan Loss Provision (Rs)	Loan & Advances(Rs)	Ratio (%)
2008/2009	201	14593	1.37
2009/2010	200	14765	1.35
2010/2011	300	14626	2.05
2011/2012	486	17614	2.75
2012/2013	750	19369	3.87

BOK (Rs. In Million)			
F/Y	Loan Loss Provision (Rs)	Loan & Advances(Rs)	Ratio (%)
2008/2009	298	14647	2.03
2009/2010	379	16664	2.27
2010/2011	488	17468	2.79
2011/2012	505	18813	2.68
2012/2013	493	22555	3.87

SCBNL (Rs. In Million)			
F/Y	Loan Loss Provision (Rs)	Loan & Advances(Rs)	Ratio (%)
2008/2009	200	13679	1.46
2009/2010	219	15956	1.37
2010/2011	235	18427	1.27
2011/2012	252	19575	1.28
2012/2013	309	22828	1.35

APPENDIX - M

Pass Loan Provision To Total Pass Loan

NABIL				(Rs. In Million)
F/Y	Pass Loan Provision	Total Pass Loan	Ratio (%)	
2008/2009	280	27766	1.00	
2009/2010	335	32543	1.02	
2010/2011	384	38215	1.00	
2011/2012	420	41867	1.00	
2012/2013	467	46630	1.00	

BOK				(Rs. In Million)
F/Y	Pass Loan Provision	Total Pass Loan	Ratio (%)	
2008/2009	147	14746	0.99	
2009/2010	167	16784	0.99	
2010/2011	178	17630	1.00	
2011/2012	188	18875	0.99	
2012/2013	227	22703	0.99	

KBL			
(Rs. In Million)			
F/Y	Pass Loan Provision	TotalPass Loan	Ratio (%)
2008/2009	147	14724	0.99
2009/2010	148	14886	0.99
2010/2011	147	14758	0.99
2011/2012	177	17701	0.99
2012/2013	193	19343	0.99

SCBNL			
(Rs. In Million)			
F/Y	Pass Loan Provision	TotalPass Loan	Ratio (%)
2008/2009	137	13789	0.99
2009/2010	160	16078	0.99
2010/2011	185	18546	0.99
2011/2012	196	19674	0.9
2012/2013	231	22961	1.00

APPENDIX – N**Substandard Loan Loss provision to Total Substandard**

NABIL		(Rs. In Million)	
F/Y	Substandard Loan Loss Provision	Total Substandard Loan	Ratio(%)
2008/2009	44	113	38.93
2009/2010	14	59	23.72
2010/2011	42	170	24.70
2011/2012	40	162	24.69
2012/2013	51	204	25

BOK		(Rs. In Million)	
F/Y	Substandard Loan Loss Provision	Total Substandard Loan	Ratio(%)
2008/2009	9	36	25
2009/2010	2	11	18.18
2010/2011	3	12	25
2011/2012	23	95	24.21
2012/2013	8	33	24.24

KBL (Rs. In Million)			
F/Y	Substandard Loan Loss Provision	Total Substandard Loan	Ratio(%)
2008/2009	8	18	44.44
2009/2010	2	10	20
2010/2011	2	9	22.22
2011/2012	10	43	23.25
2012/2013	5	23	21.73

SCBNL (Rs. In Million)			
F/Y	Substandard Loan Loss Provision	Total Substandard Loan	Ratio(%)
2008/2009	8	34	23.52
2009/2010	12	50	24
2010/2011	21	85	24.70
2011/2012	31	124	25
2012/2013	21	86	24.41

APPENDIX - O

Provision for Doubtful Debt to Total Doubtful Debt

NABIL (Rs. In Million)			
F/Y	Provision for Doubtful Debt	Total Doubtful Debt	Ratio (%)
2008/2009	23	45	51.11
2009/2010	11	22	50
2010/2011	52	104	50
2011/2012	18	36	50
2012/2013	52	104	50

BOK (Rs. In Million)			
F/Y	Provision for Doubtful Debt	Total Doubtful Debt	Ratio (%)
2008/2009	10	21	47.61
2009/2010	35	70	50
2010/2011	3	6	50
2011/2012	53	106	50
2012/2013	54	108	50

KBL			
(Rs. In Million)			
F/Y	Provision for Doubtful Debt	Total Doubtful Debt	Ratio (%)
2008/2009	30	31	96.77
2009/2010	17	34	50
2010/2011	4	9	44.44
2011/2012	55	110	50
2012/2013	202	404	50

SCBNL			
(Rs. In Million)			
F/Y	Provision for Doubtful Debt	Total Doubtful Debt	Ratio (%)
2008/2009	9	11	81.81
2009/2010	1	2	50
2010/2011	1	3	33.33
2011/2012	5	10	50
2012/2013	34	68	50

APPENDIX - P**Provision for Bad Debt To Total Bad Debt**

NABIL (Rs. In Million)			
F/Y	Provision for Bad Debt	Total Bad Debt	Ratio (%)
2008/2009	59	65	90.76
2009/2010	400	404	99.00
2010/2011	388	392	98.97
2011/2012	778	783	99.36
2012/2013	704	705	99.85

BOK (Rs. In Million)			
F/Y	Provision for Bad Debt	Total Bad Debt	Ratio (%)
2008/2009	130	132	98.48
2009/2010	173	174	99.42
2010/2011	304	304	100
2011/2012	239	239	100
2012/2013	239	204	117.15

KBL (Rs. In Million)			
F/Y	Provision for Bad Debt	Total Bad Debt	Ratio (%)
2008/2009	19	19	100
2009/2010	81	81	100
2010/2011	144	144	100
2011/2012	243	243	100
2012/2013	349	349	100

SCBNL (Rs. In Million)			
F/Y	Provision for Bad Debt	Total Bad Debt	Ratio (%)
2008/2009	44	44	100
2009/2010	45	45	100
2010/2011	26	26	100
2011/2012	19	19	100
2012/2013	22	22	100

P) Co-efficient of Correlation Analysis Between Loan and Advances on NPL of SCBNL Bank							
Year	NPL	Ln/ adv					
	X	Y	x = X-X	y = Y-Y	x ²	y ²	xy
2009	91	13679	-36	-4414.00	1296	19483396	158904
2010	98	15956	-29	-2137.00	841	4566769	61973
2011	115	18427	-12.00	334.00	144	111556	-4008
2012	154	19575	27.00	1482.00	729	2196324	40014
2013	177	22828	50.00	4735.00	2500	22420225	236750
Total	635	90465.00			5510	48778270	493633

i) Calculation of Mean

For N.Income $\bar{X} = \frac{\sum X}{5} = 127.00$ For Ln/adv $\bar{Y} = \frac{\sum Y}{5} = 18093.00$

ii) Calculation of Correlation Coefficient between NPL and loan and advances.

$$r_{xy} = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{493633}{\sqrt{5510} \sqrt{48778270}} = 0.9522$$

iii) Calculation of Standard Deviation (σ)

For Deposit $\sigma_x = \sqrt{\frac{\sum (x-x)^2}{N}} = \sqrt{\frac{5510}{5}} = 33.20$

For Ln/adv $\sigma_y = \sqrt{\frac{\sum (y-y)^2}{N}} = \sqrt{\frac{48778270}{5}} = 3123.40$

iv) Simple Regression Equation of Loan and advance on NPL of SCBNL

$$\begin{aligned}
 \bar{Y} - Y &= \frac{r \times \bar{y} (X - \bar{X})}{\bar{b}_x} \\
 \text{or, } Y - 18093 &= \frac{0.9522 \times 3123.40 (X - 127)}{33.20} \\
 \text{or, } Y - 18093 &= 89.58X - 11376.84 \\
 \text{or, } Y &= 6716.16 + 89.58X
 \end{aligned}$$

v) Calculation of Probable Error

$$\begin{aligned}
 \text{P.E.} &= \frac{0.6745 (1-r^2)}{\sqrt{N}} & \text{P.E.} &= \frac{0.6745 (1-0.9522^2)}{\sqrt{5}} & \text{P.E.} &= 0.02814 \\
 6\text{P.E.} &= 6 \times 0.105 & & & & = 0.1688
 \end{aligned}$$