

**LOAN PORTFOLIO ANALYSIS OF NEPALESE  
COMMERCIAL BANKS: A COMPARATIVE STUDY OF  
CENTURY COMMERCIAL BANK LIMITED AND CIVIL  
BANK LIMITED**

A Dissertation submitted to the Office of the Dean, Faculty of Management  
in partial fulfilment of the requirements for the Master's Degree

by

**RANJIT HAMAL**

**People's Campus**

**Exam Roll No.: 3495/17**

**TU Regd. No.: 7-2-271-420-2012**

**Campus Roll No.: 24/073**

**Kathmandu, Nepal**

**June, 2022**

## **CERTIFICATION OF AUTHORSHIP**

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled “Loan Portfolio Analysis of Nepalese Commercial Banks: A Comparative Study of Century Commercial Bank Limited and Civil Bank Limited”. The work of this dissertation has not been submitted previously for the purpose of conferral of any degrees nor has it been proposed and presented as part of requirements for any other academic purpose.

The assistance and cooperation that I have received during this research work has been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

.....

Ranjit Hamal

27/06/2022

## **REPORT OF RESEARCH COMMITTEE**

Mr. Ranjit Hamal has defended research proposal entitled “Loan Portfolio Analysis of Nepalese Commercial Banks: A Comparative Study of Century Commercial Bank Limited and Civil Bank Limited” successfully. The research committee has registered the dissertation for further progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Mr. Rajendra Raya and submit the thesis for evaluation and viva voce examination.

---

Supervisor (Defend)

**Dissertation Proposal Defended Date:**

---

Mr. Rajendra Raya  
Supervisor

**Dissertation Submitted Date:**

---

Dr. Gopal Krishna Shrestha  
Head Researcher Committee

**Dissertation Viva Voce Date:**

## APPROVAL SHEET

We have examined the dissertation entitled “Loan Portfolio Analysis of Nepalese Commercial Banks: A Comparative Study of Century Commercial Bank Limited and Civil Bank Limited” presented by Mr. Ranjit Hamal for the degree of Master of Business Studies. We hereby certify that the dissertation is acceptable for the award of degree.

---

Dissertation Supervisor

---

Internal Examiner

---

External Examiner

---

Chairperson, Research Committee

## **ACKNOWLEDGEMENT**

The study has been prepared for the partial fulfillment of the requirement for the Master degree in Business studies. It is my privilege to complete this thesis entitled, “Loan Portfolio Analysis of Nepalese Commercial Banks: A Comparative Study of Century Commercial Bank Limited and Civil Bank Limited” is an outcome of continuous cooperation and support of several hands and heads. I would like to express my gratitude to all for their support. I would like to appreciate the people helping me and contributing in writing this thesis.

Firstly, I express the gratitude for overall brilliant assistant and very useful comments to my supervisor Mr. Rajendra Raya and to Mr. Rajan Bilas Bajracharya for their support during the dissertation. In addition, I am thankful to the Head of the Research Department, Dr. Gopal Krishna Shrestha. I am also extremely indebted to all the teachers of People’s campus, who encouraged me in my entire academic attempt.

At the end, I would like to express gratitude to all my friends and colleagues, who kept me float when some moments were hard.

Ranjit Hamal

# TABLE OF CONTENTS

<b>TITLE PAGE</b> .....	<b>i</b>
<b>CERTIFICATION OF AUTHORSHIP</b> .....	<b>ii</b>
<b>REPORT OF RESEARCH COMMITTEE</b> .....	<b>iii</b>
<b>APPROVAL SHEET</b> .....	<b>iv</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>v</b>
<b>TABLE OF CONTENTS</b> .....	<b>vi</b>
<b>LIST OF TABLES</b> .....	<b>viii</b>
<b>LIST OF FIGURES</b> .....	<b>ix</b>
<b>ABBREVIATIONS</b> .....	<b>x</b>
<b>ABSTRACT</b> .....	<b>xi</b>
<b>CHAPTER-I: INTRODUCTION</b> .....	<b>1-6</b>
1.1 Background of the Study .....	1
1.1.1 A Brief Profile of Selected Banks .....	2
1.2 Problem Statement .....	4
1.3 Objectives of the Study .....	4
1.4 Rationale of the Study .....	5
1.5 Limitations of the Study .....	5
1.6 Organization of the study .....	6
<b>CHAPTER – II: LITERATURE REVIEW</b> .....	<b>7-43</b>
2.1 Conceptual Review .....	7
2.1.1 Lending Procedure .....	8
2.1.2 Lending Criteria .....	10
2.1.3 Banks Lending and Risk .....	12
2.1.4 Lending Management Techniques .....	13
2.1.5 Lending Risk Mitigation .....	14

2.1.6. Classification of Lending .....	16
2.2 Review of NRB Directives Relating to Lending.....	24
2.3 Review of Related Studies.....	29
2.3.1 Review of Articles.....	29
2.3.2 Review of Previous Thesis.....	32
2.4 Research Gap.....	42
<b>CHAPTER – III: RESEARCH METHODOLOGY .....</b>	<b>44-47</b>
3.1 Research Design .....	44
3.2 Sources of Data.....	45
3.3 Population and Sample .....	45
3.4 Tools of Data Analysis .....	45
<b>CHAPTER – IV: RESULTS AND DISCUSSION.....</b>	<b>48-71</b>
4.1 Loan Portfolio Analysis.....	48
4.1.1 Sector Wise Loan Portfolio Analysis.....	48
4.1.2 Product Wise Loan Portfolio Analysis.....	57
4.1.3 Collateral Wise Loan Portfolio .....	64
4.2 Major Findings and Discussion .....	70
<b>CHAPTER – V: SUMMARY AND CONCLUSIONS .....</b>	<b>72-76</b>
5.1 Summary.....	72
5.2 Conclusions .....	74
5.3 Implications .....	76
<b>REFERENCES.....</b>	<b>77-79</b>
<b>APPENDICES</b>	

## LIST OF TABLES

<b>Table 1 Loan Loss Provision.....</b>	<b>26</b>
<b>Table 2 Sector Wise Loan Portfolio of Century Commercial Bank Limited .....</b>	<b>51</b>
<b>Table 3 Sector Wise Loan Portfolio of Civil Bank Limited .....</b>	<b>55</b>
<b>Table 4 Product Wise Loan Portfolio of Century Commercial Bank Limited .....</b>	<b>59</b>
<b>Table 5 Product Wise Loan Portfolio of Civil Bank Limited .....</b>	<b>62</b>
<b>Table 6 Collateral Wise Loan Portfolio of Century Commercial Bank Limited .....</b>	<b>66</b>
<b>Table 7 Collateral Wise Loan Portfolio of Civil Bank Limited.....</b>	<b>68</b>

## LIST OF FIGURES

<b>Figure 1 Sector Wise Average Loan Portfolio Comparison.....</b>	<b>56</b>
<b>Figure 2 Product Wise Average Loan Portfolio Comparison.....</b>	<b>63</b>
<b>Figure 3 Collateral Wise Average Loan Portfolio Comparison.....</b>	<b>69</b>

## **ABBREVIATIONS**

BOK	:	Bank of Kathmandu
CA	:	Current Assets
CB	:	Cash and Bank Balance
CBL	:	Civil Bank Limited
CBS	:	Central Bureau of Statistics
CC	:	Cash Credit
CCBL	:	Century Commercial Bank Limited
CL	:	Current Liabilities
CRM	:	Credit Risk Management
CRR	:	Cash Reserve Ratio
CV	:	Coefficient of Variation
EBL	:	Everest Bank Limited
FIRB	:	Foundation Internal Ratings Based Approach
HBL	:	Himalayan Bank Limited
LA	:	Loan and Advance
Ltd.	:	Limited
NBL	:	Nabil Bank Limited
NBBL	:	Nepal Bangladesh Bank Limited
NIBL	:	Nepal Investment Bank Limited
NPA	:	Non-performing Assets
NRB	:	Nepal Rastra Bank
NSBIL	:	Nepal SBI Bank Limited
OD	:	Overdraft
OMO	:	Open Market Operation
PD	:	Probability of Default
ROA	:	Return on Assets
SCBNL	:	Standard Chartered Bank Nepal Limited
SD	:	Standard Deviation
TD	:	Total Deposit
TU	:	Tribhuvan University

## ABSTRACT

*The portfolio management of the Nepalese banking sector has been improved remarkably during last 10 years due to the strict regulation of Nepal Rastra Bank. The main purpose of this study will try to describe the present credit portfolio management practice of Nepalese commercial banks. The study used qualitative and quantitative approaches, a sample size is 2 commercial banks which have been selected using convenience sampling technique. Data were collected through annual reports of Century Commercial Bank Limited, Civil Bank Limited, NRB directives, Reports of CBS Nepal, published journals and articles on determinants of lending behavior in various sectors and previously done research works on the field of determinants of lending and their websites. The findings discovered that both selected banks have increasing trend in loan and advance during the study period. The average sector wise loan in manufacturing (producing) related sector of the CCBL is highest among other sector during the study period and minimum loan invested in fishery related sector, whereas CBL invested maximum loan in wholesale and retailer related sector and minimum loan invested in local government related sector. Similarly, the average product wise loan portfolio analysis found that the maximum loan invested by CBL is in demand and other working capital loan and minimum loan invested in bills purchased loan. As per the CCBL, maximum loan is invested in term loan and minimum loan invested in bills purchased loan. On the other hand, the collateral wise loan portfolio analysis found that CCBL and CBL has invested maximum loan in collateral of properties, whereas the minimum investment by CCBL is against security of bills and by CBL is in Government Securities. Furthermore, it is found that the loan portfolio of a commercial bank is mostly influenced by the credit risk to be taken by the bank, profitability to be achieved and liquidity position of the bank, NRB unified directives issued regularly to supervise the banking system, monetary policy and different government programs and subsidies to be provided to the related groups and party. Hence, considering the market situation, availability of the fund and policies formulated by the internal management team, and other external regulating bodies has played the major role in loan portfolio management of commercial banks.*

Keywords: Nepal, banks, loan portfolio, NRB unified directives, portfolio management.

## **CHAPTER-I**

### **INTRODUCTION**

#### **1.1 Background of the Study**

Banks have historically been viewed as playing a special role in financial markets for two reasons. One is that they perform a critical role in facilitating payments. The other is that they have long played an important, although arguably less exclusive, role in channeling credit to households and businesses. Commercial banks, as well as other intermediaries, provide services in screening and monitoring borrowers; and by developing expertise as well as diversifying across many borrowers; banks reduce the costs of supplying credit. Thus, in their role as lenders, banks are often not merely buying someone's debt; rather, they are providing significant financial services associated with extending credit to their customers and investors (K.C., 1999).

The banking sector is largely responsible for collecting household savings in terms of different types of deposits and regulating them into the society by lending them in different sectors of the economy. The banking sector has been expanding in the most remote areas of the country and has experienced a good deal in the growth of the economy by lending its resources in small scale industries under intensive banking program that has enable the banks to share economic growth of the country (Shrestha, 1993).

A loan is a debt. Like all debt instruments, a loan entails the redistribution of financial assets over time, between the lender and the borrower. The borrower initially receives an amount of money from the lender, which he pays back, but sometimes not always in regular installments, to the lender. This service is generally provided at a cost, known as interest on the debt. The lender may subject the borrower to certain restrictions known as loan covenants. One of the principal duties of financial institutions is to provide loans, this is typically the source of income to banks, bank loans and credit also constitute one of the ways of increasing money supply in the economy (Nwankwo, 1991).

The credit policy is the primary means by which senior management and the board guide lending activities. Although the policy primarily imposes standards, it also is a statement of the bank's basic credit philosophy. It provides a framework for achieving asset quality and earnings objectives, sets risk tolerance levels, and guides the bank's lending activities in a manner consistent with the bank's strategic direction. Credit policy sets standards for portfolio composition, individual credit decisions, fair lending, and compliance management.

### **1.1.1 A Brief Profile of Selected Banks**

#### **Century Commercial Bank Limited**

Century Commercial Bank Limited (CCBL) is a National Level Commercial bank established on January 23, 2011 with the objective of providing simplified banking services by taking advantage of innovations in information and communication technology. CCBL aims to extend its reach to the unbanked population of the country and is driven by the mission of "Saral Banking Sabaiko Lagi" (Simplified Banking for All).

The Bank has a network of 129 branches, 10 extension counters, 25 branchless banking and 108 ATMs across the country and offers a wide range of banking products in deposits, lending and other value added services such as internet/mobile banking, remittance and branchless banking etc. The Bank's team comprises of more than 1,100 staffs and caters to more than 700,000 customers.

In line with the progressive strategy, the Bank is focused on implementing sustainable business practices and deliver consistent growth that is sustainable and profitable to all its stakeholders.

#### **Civil Bank Limited.**

Civil Bank is a policy driven Bank which functions with the principle of "zero tolerance" in terms of compliance with all regulations, policies, manuals/guidelines and prudential banking norms, and always believes and functions with ethical business values. Driven by a customer-centered philosophy, Civil Bank Limited always endeavors to provide essential banking services and access to

finance to Nepali denizens from all strata across the country through support of sophisticated technology. To ensure quality and efficiency in service delivery to its customers/ clients, the Bank has adopted latest banking technologies with view of establishing itself as a technology-driven Bank. The Bank steadfastly endeavors to create value for all stakeholders including its promoters and shareholders in its wholehearted attempts to become ‘the Bank’ of the people through sustainable earnings. With the completion of recent merger with (former) International Leasing and Finance Company Limited, Civil Bank is steadfastly taking strides towards reaching its target of NPR 8 billion in paid-up capital by the end of the Fiscal Year 2073/74 (ending in mid-July 2017). The Bank has also diversified through the acquisition of Civil Capital Market Limited and looks to the future to offer various services related to mutual fund activities, portfolio management and other merchant banking services through this subsidiary. The total Asset Size, Deposit Portfolio and Risk Assets Portfolio of the Bank have grown exponentially over last 6 years of operations.

In a short span of time, the total strength of the Bank’s workforce has also increased significantly to exceed 850+ and its network of branches have reached 115 enabling the Bank to meet the demands and financial/ banking requirements of the customer across the country more efficiently. With an array of techno-tailored products and services supported with the state-of-the art technology, Civil Bank has placed itself as one of the leading Banks in terms of technology driven products and services. The Bank follows prudent practices to conform to the Central Bank’s directives while ensuring constant adherence to its values, culture and traditions ingrained since inception. The Bank has been moving forward through strategic growth while being socially responsible.

## 1.2 Problem Statement

Trends of bank expansion, operations and establishment are in apex growth condition in Nepal. Recent political changes are also adding fuel to grow the financial sector. On daily basis various news is broadcasted by media in the concern of merge, upgrade, new establishment, branch expansion etc. Recent activities of banking sector are also unique, some of them are busy to introduce new deposit product in high interest rate, some other are trying to catch attention of client by lowering interest rate on loan. So competition is high enough but Nepal Rastra Bank is lowering various services by adding various circular (restriction on margin lending, gift/prizes distribution, revised capital adequacy etc.). Thus study aim to answer following problem and has tried to analyze how the banks are performing in credit sector and how they stand in comparison to one another. Looking the increased interest rate on deposit of commercial Bank, everyone says that bank is getting sufficient fund for their operation. So the matter of concern is to find out the movement of bank credit during the recent seven-year period. Normally, following problem of commercial Bank will be solved by this study:

- How Commercial Banks (CBs) are responding on loan and advances in volume during last seven years?
- Which Commercial Banks is more Consistent than other?
- What is their Credit Mix?

## 1.3 Objectives of the Study

The main objective of this study is to analysis the loan portfolio of Nepalese commercial banks. The specific objectives of the study are as follows;

- To identify loan portfolio management of Nepalese Commercial Bank.
- To analyze sector wise, product wise and collateral wise loans and advances of Nepalese Commercial Banks.
- To examine the factors influencing loan portfolio management in Nepalese Commercial Banks.

#### **1.4 Rationale of the Study**

The study will be mainly beneficial to the shareholders, depositors and other creditors to identify the productivity of their funds in the sample banks. Likewise, other financial agencies, e.g. financial experts are also interested in the lending practice, deposit mobilization, interest rate management and external variables affecting loan and advance of bank can be benefited from this study. Besides them, the study will also help the management of the bank to analyze the effectiveness of its loan and advance management and to review on lending policies and managing spread rate comparing to other competitor banks. The study will also be equally significant to the central bank to formulate the new credit policy, make decision about restriction on spread rate and lending activity of commercial banks as there are certain loopholes.

#### **1.5 Limitations of the Study**

The research study has some limitations. The main limitations of the study are as follows;

- Though, there has been in operation of 27 commercial banks in Nepal, only Civil Bank and Century Commercial Bank has been taken for the proposed study and thus may not represent the whole population.
- This study will be concentrated only on few performances related factors that are related with credit practices like loan and advance of the banks on sector wise, product wise and collateral wise regression over the study period.
- All the data used will be the secondary data from the published annual reports of the bank and the report form the NRB websites.
- Only 7-years data will be considered during this study from year 2014/15 to 2020/21. The reliability of the data depends totally on the annual reports of the sample banks and the reports collected from the monthly reporting to the NRB.
- In this study, only selected financial ratios relating to loan and advance and profit and statistical tools as mean, standard deviation, coefficient of variation, correlation and a regression model are used.
- Standard Performance level may not be available especially in Nepalese context. In thesis context, concerned experts are also consulted. Secondary sources of data will be taken for the study.

## **1.6 Organization of the study**

The whole study is divided into five main chapters. They are as follows:

### **Chapter - I: Introduction**

It includes general background of the study, a brief profile of selected banks, problem statement, objectives of the study, rationale of the study, limitations of the study and organization of the study.

### **Chapter - II: Literature Review**

This chapter presents conceptual framework, review of related literature like books, dissertation, articles, brochure, booklets, journals, report and magazines etc. At last research gap is also mentioned in this chapter.

### **Chapter - III: Research Methodology**

This chapter deals with research methodology to be adopted for the study to satisfy the objectives of the study. It consists of research design, sample and population, sources of data, data collection procedure, methods and tools of data analysis.

### **Chapter - IV: Results and Discussion**

This chapter is most important and plays vital role in this study. This chapter deals with presentation, analysis and interpretation of data. These collected data have been analyzed and interpreted by the help of various statistical and accounting tools and techniques. It also includes major findings of the study.

### **Chapter - V: Summary and Conclusions**

This chapter presents of the brief summary of whole research report and conclusions. It also provides some useful suggestion and recommendations to concerned parties. At the beginning of the study table of contents, recommendation sheet, viva voce sheet, acknowledgement, list of table and figure and abbreviation are presented at first and bibliography and the end of the study appendices are also presented.

## **CHAPTER - II**

### **LITERATURE REVIEW**

The purpose of literature review is to develop some expertise in one's area to see what new contribution can be made and to review some idea for developing design. For the purpose of literature review, various reviews of books for conceptual framework is done as well as review of related articles, journals and previous thesis.

#### **2.1 Conceptual Review**

Credit is the vital and the most important activity in the bank, next only to deposit mobilization. It is the activity that generates the main income stream for the bank. The activity should therefore be pursued with the utmost professionalism conservation and circumspection. Banks should develop and implement policies and procedures to ensure that the loan portfolio is adequately diversified given the bank's target markets and overall credit strategy. In particular, such mix as well as set exposure limits on single counters parties and groups of connected counters parties, particular industries or economic sectors, geographic regions and specific products. Banks should ensure that their own internal exposure limits imply set by the banking supervisors. Credit policies establish the framework for lending and guide the credit granting activities of the bank (Crosse, 1963).

Credit is the amount of money lent by the creditor to borrower either on the basis of security or without security. Credit and advances is an important item on the asset side of the balance sheet of a commercial bank. Bank earns interest on credits and advances which is one of the major sources of income for banks. Bank prepares credit portfolio; otherwise it will not only effect debts but also affect profitability adversely (Nwankwo, 1991).

Credit administration involves the creation and management of risk assets. The process of lending takes into consideration the people and system required for the evaluation and approval of loan requests, negotiation of terms, documentation, disbursement, administration of outstanding loans and workouts, knowledge of the process and

awareness of its strength and weaknesses are important in setting objectives and goals for lending activities and for allocation available funds to various lending functions such as commercial, installment and mortgage portfolios.

The main task of commercial bank is to collect funds as deposit through several sources and lend them to different sectors like; manufacturing, transportation, trade, construction, communication and other public utilities etc. Doing all these activities every bank has to face so many risks. There are several types of risk prevailed in the banking industry, but the major area of the risk is widely recognized, i.e. credit risk, market risk and operating risk etc. The credit risk is the potential financial loss resulting from the failure of customers to honors fully the terms of loan or contract (Dahal & Dahal, 2012).

On the other hand, the market risk includes balance sheet risk and trading risk such as potential risk to earnings and capital resulting from changes in interest rate, liquidity conditions, impact of foreign exchange rate fluctuations etc. Meanwhile operating risk arises from the natural disasters, errors in processing and settlement of transactions safeguarding of assets, system failure, fraud and forgery.

### **2.1.1 Lending Procedure**

We will outline all the major steps needed to be completed by a loan processor in order to ensure a successful loan package. While there are variations to these steps depending on your employer, local and state laws, and others, the following guide will still serve as a good checklist in any loan processing environment (Universal Class, 2019):

#### **i. The Loan File**

The loan file is where it all begins. Depending on whether or not the loan processor of a larger company or both the loan officer and loan processor of a smaller office, the work of the loan processor starts here with this file (well folder). The loan file will contain the loan application. In addition, it will include comments made by anyone who has had their input in the loan application process as well as any notes about the potential borrower that was made during the loan interview process. Read through the application, comments, notes, and overall loan request. It is where loan file is made understood entirety before

moving it forward for approval. If there are any questions about the loan those issues must be clarified with the Loan Officer before moving forward.

## **ii. The Credit Report**

In many cases, the credit report may already be provided. The loan officer may have already run this report from the beginning before going any further with the loan application process. The loan applicant has consented to have their credit report pulled for purposes of evaluating their loan worthiness. If the credit report is not already attached to the loan file, then it is needed to double check the application to make sure that they have consented to the credit report check and then pull their credit report. Most of the credit reports pulled will be stored electronically in loan processing software, and print copies is attached to the loan file.

## **iii. Title Records and Information**

While processing a loan request for an automobile, house, and so on, it is needed to verify the title information (VOT: Verification of Title). This will not be necessary for all loans. Title verification helps to determine if there is a lien on the object that the borrower is requesting a loan on.

## **iv. Verify Income Sources**

Probably the most important step is to verify all the income, assets, and employment information of the borrower. Verification of the employment of the borrower (VOE) is utmost to verify the income of the borrower (VOI). It is also needed to verify the assets listed by the borrower (VOA) and any other income information required or produced by the borrower.

## **v. Appraisals, Insurances, and Inspections**

When all documents including the income and employment sources for the loan applicant, has received the replies from the necessary parties, it is now ready to continue with any necessary appraisals, proof of insurance, or inspections. These items will vary greatly depending on the state and local laws that govern the loan which the applicant is requesting, as well as the type of loan itself. For example, if a mortgage loan is being processed, the property has to be appraised, inspected, get proof that there is no termite presence (in some states), and other procedures.

**vi. Loan File Review**

If there are any mistakes, errors, or oversights, this is where they need to be caught. At this point, the loan process is complete; credit reports for the loan applicant is obtained, all income, deposits, and employment details are verified, if needed, the property, the vehicle, or other asset are appraised and inspected. All of this documentation are re-checked. If any of the information seems vague, clarification on the information or explanation shall be given as to why this information isn't provided in greater detail. This is also where any red flags in the file are to be found or be sure to highlight or note any red flags seen before sending it off to the underwriters.

**vii. Certify and Deliver the File**

Now after reviewing all the information in the loan file and are satisfied with the documentation provided by the applicants and verified, then the loan package is finalized and delivered it to the lender, underwriter, and manager.

**2.1.2 Lending Criteria**

Credit management is the process of granting credit, the terms it's granted on and recovering this credit when it's due. This is the function within a bank or company to control credit policies that will improve revenues and reduce financial risks. The purpose of the credit management policy is to define rules on all steps that are likely to generate business risk by committing financial resources. This is done in order to manage this risk and to minimize them. Well managed, a risk can become an opportunity (Bhatta, 2004).

Financial environment is dynamic. In this dynamic financial environment fluctuation in interest rates, exchange rates and commodity and real estate price are not something new. These fluctuations in economic and financial variables destabilize the corporate strategies and performance of bank. Thus, it is necessary that bank has a framework of risk management.

Effective credit management allows a bank to reduce risk ad potential non- performing assets. Once bank understand their risk and their cost they will be able to determine their most profitable business. Therefore, the bank must have an explicit credit risk strategy by

organizational changes, risk measurement techniques and fresh credit processes and system. While talking about the credit management, five C's of creditworthiness should be considered and they are (Michel & Robert, 2001):

### **Character**

The good character and intention of the borrower is very important and thus should be seriously considered. Information about the character of the client can be gathered from his working place, reference, neighbors and other places he is associated with. This job tediously but should be carried out for secure investment.

### **Collateral**

Sufficiency of collateral is necessary to ensure the recovery of loan. In case of default, by any cause, the collateral kept should have value enough to recover the loan granted and interest borne by it. It is recommended that only 40 percent of the value of collateral is granted as loan, but considering other factors like character of borrower and his credit worthiness, this percent can be made flexible.

### **Capital**

Capital provides a caution to absorb operating and assets losses that might otherwise impair debt repayment. This, in fact, is the insurance against the loans granted to the borrowers.

### **Capacity**

It can be described as a customer ability to pay. It is measured by applicants past performance records. For this an interview with applicants, customers\suppliers will further clarify the situation. The gross income, expenses and net income should be analyzed whether the borrower lives on salary\wages or any other forms of income sources. Whether the borrower has extra income source other than usual based which should be used to repay the scheduled installments should be considered.

### **Conditions**

Borrowers may be subject to unfavorable economic conditions beyond their control. Repayment depends not only upon character, capacity and collateral but those factors over which the borrower exercise little or no control. As for example: natural calamities

or drastic economic crises etc. Risk depends upon the quality found in each 'C' and the combination of these five Cs, assuming the same conditions prevails; the following guidelines are suggested.

### **2.1.3 Banks Lending and Risk**

Credit risk is defined as the possibility that a borrower will fail to meet its obligations in accordance with the agreed forms and condition. Credit risk is not restricted to lenders doing activities only but includes off balance sheet and interbank exposures. The goal of CRM is to maximize the bank risk adjusted rate of return by maintaining the CRM within acceptable parameters. For most banks, loan is the largest and most obvious resources of credit. However, other sources of credit risk exist throughout the activities of banks including in the banking book and in the trading book and also in both on and off balance sheet. Banks are increasingly facing credit risk or counterparty risk in various financial instruments other than loans including acceptance, interbank transactions, trade financing, foreign exchange transaction and guarantee and the settlement of transactions (K.C., 1999).

Credit is regard as the most income generating assets especially in commercial banks. Credit is regarded as the heart of commercial bank in the sense that, it occupies large volume of transaction. It covers the main part of investment. It is the main factor for creating profit and determining the profitability. It affects the overall economy.

In today's context, it also effects on national economy in some extent because if the bank provides credit to retailer, it will make the customer status. Similarly, it provides cash to trade and industry too. The government will get tax from them and help to increase national economy. It is also the security against depositors. It is supposed from the very beginning that Credit is the wealth maximization derivative. However, other factors can also affect profitability and wealth maximization but the most effective factor is regarded as credit risk. It is the most challenging task because it is backbone in commercial banking. Thus effective management of credit should seriously be considered. Management is the system which helps to complete the task effectively. Credit risk management is also the system which helps to manage credit effectively, in other words,

credit risk management refers the management of credit exposure arising from loans, corporate bodies, and credit derivatives. Credit exposures are the main sources of investment in commercial banks and return on such investment is supposed to be main sources of income (Bhandari, 2014).

#### **2.1.4 Lending Management Techniques**

As the majority of bank assets are in the form of loan, as the lending function is simple and create the value of the bank. The main danger is the chance of the borrower not to pay the loan amount, so the proper prudent management of the credit risk is very important. Merton and Bodies have suggested three techniques for the credit parameter in their article published in the journal of Banking and Finance (Michel & Robert, 2001).

##### **Risk based pricing**

It has been established that risk based pricing required lenders to change the rate that compensates for the riskiness of the loan. The pricing procedure needs to be straight forward and not based solely an historical loan loss experience. In practice, loan pricing tends to follow the prime rate plus basis. Because the prime rate is not the lowest rate that a bank charges the credit worthiest customers can negotiate from the prime rate. The discount prime rate is what bank use to attempt to compete with open market instruments such as commercial paper and corporate bonds (Crosse, 1963).

##### **Assets Restriction**

Bank lenders and other creditors have a claim on the borrower's assets. As long as the market value of assets exceeds the value of liabilities, creditors are protected because proceeds from sales of assets cover the entire claim alternatively, as long as positive net worth exists, business firms are not going to turn over the creditors assets that exceeds the value of claim against them. Thus one ways for lenders to protect themselves is to try to ensure that the value of assets always exceed than value of claims. Cross (1963) stated that Restriction amount of debt a borrower takes on and restricting the variability of the value of assets are the basic ways of meeting this objective. Restricting covenants is long agreement and the strength of bank customer relationships are practical ways that lender impose assets restrictions or establish borrower's incentives for compliance.

## **Monitoring**

As per the word of Cross (1963), if lender have a contractual right to monitor assets value continuously and to seize assets, than loan losses can be minimized either by auditing assets values and seizing assets before short falls exist or by requiring the posted value of collateral assets to equal or the posted value of collateral assets to equal or exceeds the promised payment for private loan, which banks have considerable expertise in organization, monitoring without continuous surveillance is costly.

### **2.1.5 Lending Risk Mitigation**

Banks may use a number of techniques to mitigate the risks to which they are exposed. The prime objective of this provision is to encourage the banks to manage credit risk in a prudent and effective manner. As such, credit risks exposures may be collateralized in whole or in part with cash or securities, or a loan exposure may be guaranteed by a third party. Where these various techniques meet the minimum conditions mentioned below, banks which take eligible financial collateral are allowed to reduce their credit exposure to counterparty when calculating their capital requirements to take account of the risk mitigating effect of the collateral. However, credit risk mitigation is allowed only on an account by account basis, even within regulatory retail portfolio.

As a general rule, no secured claim should receive a higher capital requirement than an otherwise identical claim on which there is no collateral. Similarly, the effects of the CRM shall not be double counted and capital requirement will be applied to banks on either side of the collateralized transaction: for example, both repos and reverse repos will be subject to capital requirements. In cases where the bank has obtained same security for various forms of facilities; banks are eligible to claim the CRM benefit across all such exposures up to the eligible value of CRM. The following are the practice to follow for the lending risk mitigation (Nepal Rastra Bank, 2018):

### **Legal certainty**

Collateral is effective only if the legal mechanism by which collateral is given is robust and ensures that the lender has clear rights over the collateral to liquidate or retain it in the event of default. Thus, banks must take all necessary steps to fulfill local contractual

requirements in respect of the enforceability of security interest. The collateral arrangements must be properly documented, with a clear and robust procedure for the timely liquidation of collateral. A bank's procedures should ensure that any legal conditions required for declaring the default of the customer and liquidating the collateral are observed. Where the collateral is held by a custodian, the bank must seek to ensure that the custodian ensures adequate segregation of the collateral instruments and the custodian's own assets. Besides that, banks must obtain legal opinions confirming the enforceability of the collateral arrangements in all relevant jurisdictions.

### **Low correlation with exposure**

In order for collateral to provide protection, the credit quality of the obligor and the value of the collateral must not have a material positive correlation. For example, securities issued by the collateral provider - or by any related group entity - would provide little protection and thus would be ineligible.

### **Maturity Mismatch**

The maturity of the underlying exposure and the maturity of the hedge should both be defined conservatively. The effective maturity of the underlying collateral should be gauged as the longest possible remaining time before the obligor is scheduled to fulfill its obligation. The collateral must be pledged for at least the life of the exposure. In case of mismatches in the maturity of the underlying exposure and the collateral, it shall not be eligible for CRM benefits.

### **Currency Mismatch**

Ideally the currency of the underlying exposure and the collateral should be the same. Where the credit exposure is denominated in a currency that differs from that in which the underlying exposure is denominated, there is a currency mismatch. Mismatches shall be subject to supervisory haircut of 10 percent.

### **Risk Management**

While CRM reduces credit risk, it simultaneously may increase other risks to which a bank is exposed, such as legal, operational, liquidity and market risks. Therefore, it is imperative that banks employ robust procedures and processes to control these risks, including strategy; consideration of the underlying credit; valuation; policies and procedures; systems; control of roll-off risks; and management of concentration risk

arising from the bank's use of CRM techniques and its effect with the bank's overall credit profile.

### **Qualifying criteria for guarantee**

A guarantee (counter guarantee) to be eligible must represent a direct claim on the protection provider and must be explicitly referenced to specific exposures or a pool of exposures, so that the extent of the cover is clearly defined and irrefutable. Other than non-payment by a protection purchaser of money due in respect of the credit protection contract it must be irrevocable in that there must be no clause in the contract that would increase the effective cost of cover as a result of deteriorating credit quality in the hedged exposure. It must also be unconditional in that there should be no clause in the protection contract outside the control of the bank that could prevent the protection provider from being obliged to pay out in a timely manner in the event that the original counter party fails to make the payments due.

### **2.1.6. Classification of Lending**

Bank makes a wide variety of lending to a wide variety of customers for different purposes. They are real estate loan, commercial or industrial loan, individual or consumer loan, agriculture loan, and loan and lease in domestic offices and loan and leases in foreign offices. Lending may be classified as follows (Nepal Rastra Bank, 2018):

- a) On the Basis of Nature of Loan
- b) On the Basis of Sector-wise Loan Distribution
- c) On the Basis of Security
- d) On the Basis of Purpose
- e) On the Basis of Fund
- f) On the Basis of Form of Lending

## **a) On the Basis of Nature of Loan**

### **Overdraft Facility**

A fluctuating account that indicates the aggregate amount, by which a depositor has overdrawn the account, is known as overdraft. Available to the current account holders of high standing and integrity, the arrangement enables a customer to draw over and above the balance standing on the credit to the account. Overdrafts are provided to cover borrowing of a temporary fluctuating nature that will be repaid on the receipt of expected funds. If a borrowing request does not confirm to this definition, then the facility would be best provided in the form of a loan.

### **Demand Loan**

Demand loan is a working capital loan provided for not more than a year. It is a revolving type of loan, which once settled is reinstated by the settled amount. This means the customer can settle and withdraw as many times as s/he pleases within the expiry period of the loan. When s/he needs the fund s/he must give a demand letter and for settlement as well s/he must give a request letter to settle the desired amount.

### **Term Loans**

Loans that are granted for a certain period are known as term loan. The most basic is the term loan, where a specified maturity date sets the time for ultimate repayment. They vary from the short term (bridging finance, working capital, trade finance) through the medium term (two to five years for working capital, some capital expenditure), to the long term (project finance, capital expenditure). A term loan can have a fixed repayment schedule. It can also be a revolving facility, in that during its term the borrower can repay amounts but then re-borrow, so long as the overall limit of the facility is not exceeded.

### **Participation Loan or Consortium Loans**

When the borrower's demand of advance is somewhat large and when two or more banks agree to advance a large term loan jointly to the borrower, in a certain agreed proportion, against a common security, such loans are called 'participation loans' or 'consortium finance'. They are also called 'consortium advances'. The proportion of each of the participating banks is decided among the member banks of the consortium. Such loans are extended to meet large-size credit requirements of trade and industrial houses.

**Hire Purchase Loan**

In case of hire purchase loan, the article belongs to the owner (bank) and is given on hire to the customer. The hirer (borrower) will pay the owner (bank), the hire money agreed between them by installments normally on (EMI) i.e. on equal monthly installment basis over a period of time. If the hirer fails to pay any installments due, the owner (bank) will have unrestricted and undisputed right to take over the possession of the article or vehicle given on hire. Banks entertain for vehicles and costly durable goods such as refrigerators and television on hire purchase agreements. Nowadays, machinery and equipment are also being financed under hire purchase scheme.

**Time Loan**

Time loan is also a working capital loan, given for a period of less than one year and has a fixed maturity date. Time loans can be one time specific: the borrower is not allowed to withdraw once settled, and revolving: once the loan is settled, further drawing is allowed within the validity of the limit.

**Trust Receipt Loan**

Trust receipt loan is provided to importers against import letter of credit (hereafter LC) established by the bank to make payment for the goods arrived through the LC. Each trust receipt loan is treated as a specific time loan having fixed maturity date i.e. 30, 60, or 90 days.

**Mortgage Loan**

Loans extended against the strength of fixed assets (mortgaged properties) like land and building is known as mortgage loan. Mortgage loan can be in the form of term loan as well as overdraft which entirely depends on the borrower's request. The main feature of this type of loan is that the borrower need not have a firm to borrow. The borrower's earning source and value of property will be sufficient to obtain such loans.

**Bills Purchased and Discounted**

Bill discounting constitute another important type of lending made by a bank. Banks discount genuine commercial and treasury bills. Loan amount constitutes the face value of the bill minus the discount charges. Discount constitutes the income earned by the bank. Investment in these bills is generally referred to as to third line of defense for the

banks. The banker gets back the money lent on or before the bill period. A strong bill market presence is required for strong and healthy money. In bills purchased and discounted, the banker holds the bills till the maturity date of the bill. On the stipulated date of maturity, the drawee pays the banker and takes back the bills of exchange originally deposited by the trader. In the event of the drawee failing to make payment, the drawer has to make payment of the bill. However, the banker takes into account the financial position and the integrity of the drawers/makers before undertaking bill discounting.

### **Cash Credit**

Cash credit is a credit given in cash to borrowers. It is the most popular method of lending. Under cash credit system, a limit, called the credit limit is specified by the bank. A borrower is entitled to borrow up to that limit. It is granted against the security of tangible assets or guarantee. The borrower can withdraw money, any number of times up to that limit. Borrower can also deposit any amount of surplus funds with him from time to time. The borrower is charged interest on the actual amount withdrawn and for the period such amount is drawn.

### **b) On the Basis of Sector-wise Loan Distribution**

#### **Real Estate Loan**

A loans secured by real estate is considered as real estate loans. It is the short-term loans for construction and land development and longer-term loans for the purchase of farmland, homes, apartments, commercial structures, and foreign properties. Real estate loans are amongst the most profitable type of loan at the time of prosperity and it represents the highest percent of total loan in the commercial banks.

#### **Commercial or Industrial Loan**

Commercial or industrial loans are extended to finance the business of a burrower. It can be for financing the working capital need, purchase of fixed assets and various other seasonal or miscellaneous requirements. The financing can be for short term and long term needs.

### **Individual or Consumer Loan**

Individual or Consumer loans are extended to individual borrowers. The average size of consumer loans is relatively small. Consumer loans are provided to finance durable goods in hire purchase like car, refrigerator, washing machine etc. Nowadays banks finance the education, medical care, travelling expenses etc. of individuals. The individual borrower's default risk is high compared to commercial loans. Hence, the interest rates on such loans are high in comparison to other types of loans. Consumer loans are normally repaid in installments consisting of principle and interest on equal monthly installments (EMI) basis. As the interest is also paid every month, the actual cost of fund to the borrower comes to be higher than other loans. Such loan is also called 'retail loan'. Individual or Consumer loans can be divided into two categories (Nepal Rastra Bank, 2018):

### **Agriculture Loan**

The loans to finance farm and ranch operations, mainly to assist in planting and harvesting crops and to support the feeding and care of livestock are known agriculture loan. Such loans are quite similar to commercial and industrial loans because loan is provided to finance the short term seasonal credit need of the customers. The loan is utilized in purchase of seeds, pesticides, fertilizers, wages of farm workers and various other production costs. The loan is repaid when other crops are harvested and sold. Long term financing is extended for purchase of livestock, tractor, combine machine, equipment and land. Agriculture lending is considered extremely volatile because the price of agro products rises and falls depending on the demand and supply of national and international markets.

### **Loan and Lease in Domestic Offices**

Lease financing is the most import single source of funds to support business expenditures for capital investments. Lease financing means letting or renting a building, a piece of land, or equipment for a fixed period against which the lessee pays a lease rental fee for the period. The regular fixed rental fee is paid on monthly, quarterly, half yearly basis as per the agreements between the leaser and lessee. When the lease contract ends, the assets revert to the leaser. A lessee is an individual or a firm which uses an asset without owning it.

### **c) On the Basis of Security**

#### **Secured Loan**

When loan is fully secured by 100 percent cash margin or by instruments equivalent to cash such as Fixed Term Deposits, Foreign Currency Deposits, Deposits under certain Saving Schemes, Provident Fund Account etc. held in the bank's own account, it is considered as secured risk loan. A secured loan is one in which an asset, such as inventory or property, is pledged against repayment of the loan. For example, a secured line of credit used to purchase inventory can be secured by that same inventory.

#### **Unsecured Loans**

An unsecured line of credit used to purchase the inventory is not secured by the inventory; rather, the line of credit is granted primarily because of the good credit history of the business. Lending Business of Banks in Nepal: A Legal Perspective 151 any security. According to Sec. 5 (a) of the Indian Banking Regulation Act, 1949 an unsecured loan or advance means a loan or advance not so secured.

#### **Sovereign Risk Loan**

When loan is provided against government security such as National Savings Bond, Development Bonds, Treasury Bills issued by central bank or against government guarantee, it is considered as sovereign risk loan.

#### **Bank Risk Loan**

When loan is provided against the security of fund held in some other bank, it is considered as bank risk loan. Loan against Fixed Term Deposit certificate issued by another bank or loan against Guarantee or Stand by LC issued by local or foreign bank loan against funds placed at call with local or foreign bank etc. are the examples of bank risk loan.

#### **Casual Risk Loan**

When negotiable instruments are purchased casually such as cheques, drafts, bills etc. and where the instrument itself serves as the security for the advance, it is considered as casual risk loan. Regular facility is not provided for such purchase facility.

**Clean Risk Loan**

Loans and overdrafts provided without any security in a casual way falls in clean risk loan.

**d) On the Basis of Purpose****Commercial Loans**

A commercial loan is a debt-based funding arrangement between a business and a financial institution such as a bank. It is typically used to fund major capital expenditures and/or cover operational costs that the company may otherwise be unable to afford. This loan is taken to meet short term requirement of capital e.g., working capital.

**Consumer Loan**

Consumer loan means a loan to one or more individuals for household, family, or other personal expenditures. A consumer loan does not include a home mortgage, small business, or small farm loan. This loan is taken to finance household goods, etc.

**Agricultural Loan**

Agriculture finance is related to provide credit facilities on activities related to agriculture and livestock with concentration in modernization, commercialization and contributing in value chain activities of agriculture sector. Such a loan is taken by the farmers to meet their short term requirements like buying seeds, fertilizers, insecticides etc.

**e) On the Basis of Fund****Short Term Loan**

Short term loan is taken for a period of less than one year. For example, a loan taken to meet working capital requirements etc. falls under short term loan.

**Medium Term Loan**

Medium term loan is taken for a period ranging from 1 year to 3 years. For example, a loan taken to purchase equipment, machinery for professionals or furniture etc.

### **Long Term Loan**

Long term loan is taken to meet long-term requirements from 3 years to 30 years or more. For example, loans to purchase land, building, plant and machinery etc. However, banks provide long-term loans to a very limited extent only.

### **f) On the Basis of Form of Lending**

#### **Loans/Advances**

A loan is a type of advance granted by a banker where by the entire amount is paid to the borrower in one lump sum and at one time, either in cash or by transfer to his savings or current account. No subsequent debt is ordinarily allowed except by way of interest, incidental charges, insurance premiums, expenses incurred for the protection security, etc. Repayment happens usually by installments. Interest is charged on the loan outstanding. This is the oldest and very popular form of lending by the banks. In case of loans, financial assistance is given for a specific purpose and for a fixed period. The customer can withdraw the entire amount of loan in a single installment. As such, interest is payable on the entire amount. In case he needs the funds again, he has to make a fresh application for a new loan or renewal of the existing one. Ordinarily, the loan is repayable in one installment. However, a customer may return the loan in more than one installment also.

#### **Overdrafts**

A fluctuating account that indicates the aggregate amount, by which a depositor has overdrawn the account, is known as overdraft. Available to the current account holders of high standing and integrity, the arrangement enables a customer to draw over and above the balance standing on the credit to the account. Overdrafts are provided to cover borrowing of a temporary fluctuating nature that will be repaid on the receipt of expected funds. If a borrowing request does not confirm to this definition, then the facility would be best provided in the form of a loan. The security in an overdraft account may be either personal or tangible. The tangible securities shares, debentures Government papers, life insurance policies, fixed deposit receipts, etc. An overdraft facility is granted to a customer on a written request. Sometimes, it may be implied where a customer overdraws his account and the bank honors his cheques. Overdraft can be split into the following categories:

### **Cash Credit**

Cash credit is the most popular method of lending by the banks. Under cash credit system, a limit, called the credit limit is specified by the bank. A borrower is entitled to borrow up to that limit. It is granted against the security of tangible assets or guarantee. The borrower can withdraw money, any number of times up to that limit. He can also deposit any amount of surplus funds with him from time to time. He is charged interest on the actual amount withdrawn and for the period such amount is drawn. It is essentially a drawing account against credit granted by the bank. It is operated in the same way as a current account on which an overdraft is sanctioned. Cash credits are generally allowed against the pledge or hypothecation of goods, against book debts or personal security. A cash credit is distinguished from overdraft in that a borrower is permitted to withdraw cash from the account in the case of cash credit facility, whereas in the case of an overdraft facility the borrower can withdraw only through cheques. Under the overdraft system, the amount to the loan is credited to the account of the borrower. Hence, the overdraft facilities are available only to the depositors of the bank. As against this the amount given by way of loan under the cash credit system is not credit to the current account to the borrower. On the contrary, a new account is opened in the name to the borrower who is allowed to withdraw from time to time small amount to money up to the prescribed limit.

### **2.2 Review of NRB Directives Relating to Lending**

Nepal Rastra Bank issues directives and circulars for regulations and monitoring of Banking and Financial institutions. Unified Directive-2075, related to credit management of financial institutions stated below;

#### **Unified Directive 2075: Classification of Loan and Advance and Loan Loss**

##### **Provision**

- **Performing Loans**

- 1) **Pass Loan:** Those loans and Advances whose installment (repayment) are not due or due up to one months are classified as pass loan, loans with the collateral of government bonds and T-bills and gold loans up to 10 lakhs etc. such loans are defined as performing loans.

- 2) **Watch List:** Those loan & Advances lies under pass loan and having following features must be classified as watch list.
- i. Principal and interest payments are due for more than one month up to three months.
  - ii. Not renewed on time but temporarily maturity period extended short term & working capital loan.
  - iii. Loan supplied to a borrower has been classified as non-performing loan of other Bank and Financial Institutions.
  - iv. Those regular loans (i.e. Short term loan or Working Capital Loans), supplied to firm, company & corporate body having net worth negative continuously for last two years. However, it excludes under construction projects.
  - v. Those projects where multi banking financing are enjoyed but not transferred to Consortium financing as per Section 33 of Directive No.-2.
  - vi. Those Loan & Advances having poor cash flow during inspection by Bank and order to classify as Watch List.

- **Non-performing Loan**

- 1) **Sub-Standard Loan:** Those loans and Advances whose installment (repayment) are due for more than three months but less than six months are classified as sub-standard loan.
- 2) **Doubtful Loan:** Those loans and Advances whose installments (repayment) are due for more than six months but less than one year are classified as doubtful loan.
- 3) **Bad Loan (Loss):** Those loans and Advances whose installment (repayment) are due for more than one year must be classified as bad loan (loss).

### **Unified Directives 2075: Provision for Loan Losses**

The loan loss provisioning, on the basis of the outstanding loan and advances and bills purchases classified as per this directives, shall be provided as follow;

Table 1

*Loan Loss Provision*

<b>S.N.</b>	<b>Classification of loan</b>	<b>Loan loss provision</b>
<b>1.</b>	Pass	1 %
<b>2.</b>	Watch List	5 %
<b>3.</b>	Sub-standard	25 %
<b>4.</b>	Doubtful	50 %
<b>5.</b>	Loss	100 %

Note: From NRB/Unified Directives, 2075

Loan Loss provision set aside for Performing Loan is defined as "General Loan Loss Provision" and Loan loss provision set aside for non-performing loan is defined as "specific Loan Loss Provision" (Unified Directives, 2075).

Where the banks provide for loan loss provisioning in excess of the proportional required under the directives of NRB, the whole amount of such additional provisioning may be included in General Loan Provision under the supplementary capital.

Non-Performing Asset means an asset or account of borrower, which has been classified by a bank or financial institution as sub-standard, doubtful or loss asset, in accordance with the directions or guidelines relating to asset classification issued by NRB. An amount due under any credit facility is treated as "past due" when it has not been paid within 30 days from the due date. Due to the improvement in the payment and settlement systems, recovery climate, up gradation of technology in the banking system, etc., it was decided to dispense with 'past due' concept, with effect from March 31, 2017. Accordingly, as from that date, a Non performing asset (NPA) would be an advance where;

- a. Interest and/ or installment of principal remain overdue for a period of more than 180 days in respect of a Term Loan.
- b. The account remains 'out of order' for a period of more than 180 days, in respect of an overdraft and cash Credit (OD/CC).

- c. The bill remains overdue for a period of more than 180 days in the case of bills purchased and discounted.
- d. Interest and/ or installment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purpose, and
- e. Any amount to be received remains overdue for a period of more than 180 days in respect of other accounts.

With a view to moving towards international best practice and to ensure greater transparency, it has been decided to adopt the '90 days overdue' norm for identification of NPAs, from the year ending March 31, 2017. Accordingly, with effect from March 31, 2017, a non-performing asset (NPA) shall be a loan or an advance where:

- a. Interest and /or installment of principal remain overdue for a period of more than 90 days in respect of a Term Loan,
- b. The account remains 'out of order' for a period of more than 90 days, in respect of an overdraft and cash Credit (OD/CC),
- c. The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted,
- d. Interest and/ or installment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purpose, and
- e. Any amount to be received remains overdue for a period of more than 90 days in respect of other accounts.

### **Unified Directives 2075: Requirements to Extend Loans and Advances to Productive and Priority Sector (Including Deprived Sector)**

Commercial banks are required to extend loans and advances in the productive, priority and deprived sector as follows:

Distribution of total loan and advances on said heading

- 40 percent to productive sector, including
- 12 percent to priority sector, including
- 0.25-3 percent to deprived sector

### **Productive sector credit**

Productive sector credit includes advances to priority sector and other productive sector. Priority sector in turn includes deprived sector.

### **Priority sector credit**

Priority sector is defined to include micro and small enterprises which help to increase production, employment and income as prioritized under the national development plans with an objective to uplift the living standard of low income people and progressively reducing the prevalent unemployment, poverty, economic inequality and backwardness. Micro and small enterprises are classified as agriculture enterprises, cottage and small industries and services. In addition, other businesses specified by NRB from time to time are also included under micro and small enterprises. All credit extended to priority sector up to the limit specified by NRB are termed as priority sector credit. Commercial banks extend credit under priority sector programs specified by NRB time to time.

### **Deprived sector credit**

Deprived sector includes low income and particularly socially backward women, tribes, lower caste, blind, hearing impaired and physically handicapped persons and squatter family. All credit extended for the enticements of the economic and social status of deprived sector into the limit specified by NRB is termed as “Deprived Sector Credit.” Examination of the fulfillment of priority or deprived sector lending shall be made at the end of each quarter (i.e. mid-January, mid-April and mid-July) on the basis of total outstanding loan and advances (except investments) as of immediately preceding six months. On the failure of fulfilling such lending, penalty in shortfall amount at the maximum prevailing lending rate of the bank during the examination period shall be imposed under sub section 2 of section 32 of NRB act, 2012. If the priority sector lending is fulfilled, but the deprived sector is not, the penalty is imposed on shortfall amount and

if both sector lending is not fulfilled, then the penalty is imposed on greater shortfall amount for one sector only.

## **2.3 Review of Related Studies**

### **2.3.1 Review of Articles**

Corsby, French and Oughton (2003), in the article “Bank lending valuation on commercial property, Does European mortgage lending value add anything to the process?” researchers tried to find out mortgage lending value in term in Europe should be based on sustainable values and this recommendation is compared to the current basis used for bank lending valuations mainly market value. According to them, the mortgage lending value shall mean that the value of the property as determined by a valuator making a product assessment of the future marketability of the property by taking into account long-term sustainable aspects of the property, the normal and local market conditions, the current use and alternative appropriate uses of property. Speculative elements shall not be taken into account in the assessment of the mortgage lending value. The mortgage lending value shall be documented in a transparent and clear manner.

The article of Ready (2005) provided an overview of the credit portfolio management function, structural alternatives, the skill necessary for its effective implementation, and a final word on training and compensation. The focus is on corporate credit portfolios, as these often present the largest concentration challenges though they can be easily modified.

Modern portfolio management of bank assets has fundamentally changed the requirements for individuals using this technique: their backgrounds, their training, and their skills on using available resources. While traditional credit training remains necessary, today’s portfolio manager augments this background with knowledge of early-warning systems, alternative structures to better set risk/return parameters, and more.

Bonti, Kalkbrener, Lotz and Stahl (2005) have suggested the approach for identifying as well as stressing risk concentrations in credit portfolio. The approach to stressing sector concentration uses economic downturn scenarios or market shocks as a starting point and detects concentrations in distinct but highly correlated sectors.

Zerith (2008), in article “Credit Portfolio Management”, affirmed that to manage the credit portfolios, bankers must understand not only the risk posed by each credit but also how the risks of individual lending and portfolios are interrelated. These interrelationships can multiply risk many times beyond what it would be if the risks were not related, until recently, few banks used modern portfolio management concepts to control credit risk. These practices provide management with a more complete picture of the bank’s credit risk profile and with more tools to analyze and control the risk

Godwin and Osarumwense (2009) has clearly mentioned about loan management model in the article “Approximate Maximum Likelihood Commercial Bank Loan Management Model” that the socio-economic conditions surrounding the operations of a commercial bank are dynamic. These will affect the amount of loans commercial banks can offer and also the amount of cash balances at their disposal. A bank’s market share determines to a large extent its ability to diversify its portfolio. This is due to that fact that, public confidence has to be maintained. Loss of public confidence will arise if the bank is unable to honor depositor’s withdrawals. To a certain degree, the market share determines the portfolio diversification, which the Central Bank (consequence of reserve requirements) will allow the bank. The demands for loans are always on the increase as the economy expands. Thus, any attempt to develop a model for credit lending must include uncertainty factor, to account for loan management dynamics. Further, the availability of cash and loanable funds are important to the successful operations of a commercial bank. However, if there is excess cash, it could lead to a waste of resources unless properly channeled in to loans. As a result, a commercial bank has to hold a certain amount of cash that will meet with depositors withdrawal requirements and other liquidity needs of the commercial bank”.

Tabak, Fazio and Cajueiro (2010) had studied 96 Brazilian banks and found that, the loan portfolio of Brazilian banks was average, moderate concentrated. He concluded that, loan portfolio concentration seems to improve the performance of Brazilian banks in both

return and risk of default. The concentration indices were found to be positively related to returns and negatively related to risks.

Eva and Jaroslav (2012) have investigated the “Assessment of Credit Risk Approaches in Relation with Competitiveness Increase of the Banking Sector.” The Standardized approach with assigned external rating has worked out a much lower capital adequacy than The Standardized approach without assigned external rating. The reason is the fact that after regulator’s approval banks may use external agency’s degrees and subsequently the risk weights could be assigned. Method which has calculated the lowest amounts of capital requirement is the Foundation Internal Ratings Based Approach (FIRB), which alone from among examined methods has a possibility to determine the parameters according bank’s own estimates. Based on our research, we concluded that if bank’s portfolio has given exposures with no worse than 0.88 percent probability of default, saving capital between FIRB and the most used method in the Czech Republic has been varied from 90 percent to 10 percent approximately, which give us very surprising results. The researcher showed that advanced methods for credit risk measurement are more flexible on class change of corporate exposures in portfolio. On the one hand The Standardized approach without assigned external rating is the most used method in the Czech Republic on the other hand the capital requirement of 8 million.

Afroz (2013) has found that, Bangladesh Krishi Bank was concentrating its lending to primary agriculture to serve to poor people in rural area. Later on it has diversified its activities to secondary agriculture. After diversification, the financial position of the bank become more transparent and expected for better result soon.

Wakaria (2016) carried out a study on the effect of credit management on the financial performance of microfinance institutions in Kenya. The researcher used descriptive research design as it draws in a comprehensive analysis of credit risk management and its correlation with financial performance in microfinance institutions. The researcher used secondary data (2011-2015) gathered from the study population of 13 deposits taking microfinance institutions licensed by Central Bank of Kenya and 22 non deposit taking microfinance institutions. The study’s specific objectives were credit risk, liquidity risk and interest rate risk. The study found out most microfinance institutions in Kenya are faced with credit risk as depicted by the significant negative relationship between the

financial performances (measured by return on equity) and credit risk. A unit increase in credit risk holding other factors constant resulted in a 2.165 decrease in the return on equity which is the highest negative association when compared to other forms of risks. The study recommended that the microfinance institutions in Kenya must pay constant attention to credit risk being a major risk to non-performing loans.

Daniele and Vito (2018) has examined the a dynamic approach merging network theory and credit risk techniques to assess systemic risk in financial networks. The article tries to quantify systemic risk with the PD model, a dynamic model that combines credit risk techniques with a contagion mechanism on the network of exposures among banks. A potential loss distribution is obtained through a multi-period Monte Carlo simulation that considers the probability of default (PD) of the banks and their tendency of defaulting in the same time interval. The research with PD model results reveals the emergence of a strong contagion regime where lower default correlation between banks corresponds to higher losses. This is the opposite of the diversification benefits postulated by standard credit risk models used by banks and regulators who could therefore underestimate the capital needed to overcome a period of crisis, thereby contributing to the financial system instability.

### **2.3.2 Review of Previous Thesis**

This part includes review of studies conducted by other previous researcher, their objectives and finding in the related topic.

Dhungana (2002) has conducted research in the topic “Comparative Study on Investment Policy of Nepal Bangladesh Bank and Other Joint Venture Banks”. It tries to compare the investment policy of NB Bank with HBL and SBI having following objectives:

- To study the fund mobilization and investment policy with respect to fee based off-balance sheet transaction and fund based on balance sheet transactions.
- To evaluate the liquidity, efficiency of assets management and profitability position, the trend of deposit utilization towards total investment and loan and

advances, growth ratios of loan advances and total investment with respect to growth ratio of total deposit and net profit.

The major findings of the study are:

- NBBL has not good deposit collection, it does not have made enough cash and bank balances. It has made negligible amount of investment in government securities.
- The asset management ratios were highly variable which reveals NBBL has not followed stable policy.
- NBBL ratio of OBS operation to loan and advances lower than that of HBL but its ratio is greater than that of NSBIL.
- Profitability position of NBBL is comparatively not better than that of HBL but better than NSBIL
- The credit risk of NBBL is higher than that of HBL and NSBIL. Bank profitability solely depends on interest charged by bank but the high interest rate risk of NBBL shows that bank is failure to maintain this. Trend of deposit collection, investment and net profit of NBBL were not better than HBL but better than NSBIL.

Bhandari (2004) has conducted research in the topic “Investment Policy of Commercial Bank with Special References to NSBIL” which has objectives as follows:

- To evaluate liquidity, assets management efficiency, portfolio management and profitability position.
- To analyze deposit utilization and its relation with investment and profit.
- To determine growth rate of deposit, loan, investment, and profit to determine proportion of loan loss provision to total loan.
- To evaluate NPL of NSBIL.

The following are the major findings of the study are:

- NSBIL has good liquidity position.
- From analysis of assets management, bank has utilized about 80% of the deposit into income generating assets and most of them are in the form of loan Similarly.60% of total assets are used for income generating purpose but rest fund is ideal. So it shows lack of policy for proper utilization of costly fund.

- From activity ratio view, quality of loan becoming deteriorating and NPL is also increasing.
- Following stable lending policy, most of the loan is given to industrial and commercial purpose.
- From profitability view, interest income has contributed more than 8% to total income of bank while fee-based OBS transactions has contributed only 6%. Only 3% income is generated from the investment made by the bank. Return on loan, total income to total assets ratios are in decreasing trend. So investment policy is not appropriate.
- Deposit collection is in increasing trend but loan is increasing aggressively than deposit collection. The growth rate of loan is about 70% more than the rate of growth of deposit.
- There is strong positive correlation between loan and advances and deposit

Shrestha (2005) in her thesis entitled “Credit Management with Special References to Nepal SBI Bank” has set following objectives:

- To analyze effectiveness of credit policy
- To Measure the credit performance
- To measure the liquidity position

Research finding are;

- Increasing growth ratio of deposit, loan and advances and investment shows good performance and the major portion of non-interest bearing deposit consists of current deposit and this deposit is particularly maintained by business enterprises. Increasing loan and advances and investment to total deposit ratio of the bank shows there is not maximum utilization of the fund.
- Due to increasing volume of loan and advances, the provision for doubtful debts is also increasing during the study period.
- The studies show low contribution made by lending and investment and high contribution by other fee based activities in total income and significant relationship between deposit and loan shows that bank is successfully mobilizing deposit as loan.

- NPL is in decreasing trend and bank has given priority to industrial and commercial sector lending and has good lending procedure.

Khanal (2005) in his thesis entitled “Impact of NPL on the Performance of Nepalese Commercial Banks with Special Reference to Nabil, NIB, EBL, NSBIL and BOK”

Research objectives are:

- To present and analyze data relating to NPL and performance of sample banks.
- To find out solution to minimize NPL

The major findings of the study are:

- It be said that economic slowdown and recession, overvaluation of properties provided as collateral, family credit analysis and decision, negative attitude of borrower are major causes of NPL in Nepalese commercial banks.
- It was found that no banks have been maintaining loan loss provision as per NRB directives.
- There is negative correlation between NPL and loan and advances of NBL, NIBL, NSBIL and EBL which indicates green signal that NPL of these banks are decreasing with increment in loan.

Maharjan (2005) has conducted thesis in the topic “Loan management of Nepalese Commercial Banks (with special references to BOK, NSBIL, NABIL and NIBL)”

Research objectives are:

- To examine trend in deposit and loan and understand level of NPL
- To examine investment made by sample banks in priority and deprived sector

The major findings of the study are

- Sample banks has not made investment in priority and deprived sector upper NRB directives.
- Deposit growth rate of NSBIL on an average during F/Y 2000-2004 remain poor. But loan trend was little bit satisfactory.

- All the sample banks except BOK failed to reduce NPL as of international acceptable norms.
- NSBIL was unable to maintain loss provision for other types of loan except pass loan.
- Simple regression analysis shows that variables ROA and ROE depend on the level of NPL and loan loss provision.

Tamang (2005) conducted a research “A Comparative Study on Credit Management of Himalayan Bank Ltd. and Nabil Bank Ltd.” has found out that the credit practices of Nabil in terms of loan advances to deposit ratio was found relatively low mean scores than HBL. It indicates that Nabil has been strong to mobilize its total deposit as loan and advance in comparison to HBL. Efficiency in terms of loan and advances to current asset ratio was found higher in Nabil which indicates that short term lending practices of Nabil was relatively good position in his study period. HBL has the best performance to generate interest income. This mean the HBL earned more profit than the Nabil. Lending policy of Nabil bank in terms of loss provision to total loan and advances was found relatively better than that of HBL because the mean score of the result was relatively low (i.e., 0.0451)

Sherstha (2007) conducted a study on "Loan Management of Agricultural Development Bank (ADB)" His research objectives were as follows: To examine loan disbursement and collection procedure of ADB.

- To evaluate the trend of loan investment and collection.
- To show the achievement of purpose wise, term wise and development region wise loan disbursement, outstanding and collection of ADB.

Primary data are collected from the questionnaire and concerned department of bank and secondary data are collected from journals, annual reports and other published sources. Tools used to present the secondary data are Karl Person's co-efficient of correlation, probable error, hypothetical test. His finding a textual to right research was as follows:

- Finding from loan disbursement, the total loan investment of the development financing increase from NPR 4.33 Billion in 055/56 to NPR 8.80 Billion in 059/00 registering an annual growth trend of 12.9%.

- From loan collection, total collection of the development financing increased from NPR 3.50 Billion in 055/056 to NPR 6.96 Billion in 059/60 with annual growth 12.8%.
- The total outstanding loan of the development financing increased from NPR 9.76 Billion to NPR. 16.67 Billion in same period annual growth 10.3%.
- Average loan connection to outstanding is strong in western region compared to the other region but weak in eastern, mid-western and western region; whereas average collection of loan to disbursement stranger in western region and weak in far-western region

Bista (2010) has conducted research in the topic “Loan management of SCBNL and NABIL banks”. His research objectives are;

- To examine trend of the deposit and loan of SCBNL and NABIL
- To study liquidity position and its impact on loan.

Major findings are:

- The liquidity position of Nabil and Standard Chartered Bank are normal.
- There is high degree of correlation between deposit and loan and advances of SCBNL and low correlation in respect of NABIL. So SCBNL has mobilize its deposit as loan successfully
- SCBNL bank deposit was not successfully mobilized in income generating sector.

Thapa (2010) conducted the thesis entitled topic “Loan Management: A Comparative study of Everest Bank Limited and Nepal Bangladesh Bank Limited” stated that the overall performance of Everest Bank Ltd is satisfactory than Nepal Bangladesh Bank. The liquidity position of NBBL is better than that of EBL. As loans and advances of NBBL is increasing trend deposit is also increasing trend during the study period. There is increasing trend in profit of NBBL shows that improvement in performance and success of the firm. Purpose wise loan classification show that the NBBL and EBL bank have given priority to industrial and commercial sector lending as well as priority has been given to deprived sector lending. NBBL has higher lending portion in these 82sectors than EBL. From the selected bank NBBL has performed well in increasing growth ratio of deposit, loans and advances, investment and profit. NBBL has good lending procedure, preliminary screening is done of all the loan application, credit

appraisal and financial position of the business and cash flows of the proposal is given high importance, which is essential criterion for loan approval. There is proper control mechanism like delegation of authority, follow up visits and books of accounts inspection of the client, which results in good performance of the bank. The banks follow NRB guidelines of loans classification and provisioning which makes strong financial position of the bank instead of holding high volume of non-assets. After comparative study of NBL banking performance and EBL banking performance, it can be concluded that EBL has better performance than that of NBBL.

Thapa (2011) conducted the thesis entitled topic “Loan Management of Commercial Banks (A Comparative Study of Everest and Nepal SBI Bank Limited)”.

Research Objectives are:

- How effectively these two banks have followed lending policies?
- Whether trend of loan and advances and deposits are in satisfactory position or not?
- How these banks measure liquidity and impact of loan and deposit on liquidity?
- How bank measure lending performance and efficiency?

The major findings of the study are:

- It is found that NSBIL and EBL have been able to maintain deprived sector loan ratio as set by NRB as ratio is near to 3% for deprived sector lending but both banks are not investing fund to priority sector as per NRB directives. According to NRB directives, the priority sector lending should be 12% of the total lending and the deprived sector lending should be 3% of total lending.
- It is concluded that growth of loan and deposit are in increasing during study period. However, EBL has been able to collect more deposit and use it to provide loan as compare to NSBIL. Thus trend of loan and deposit is in satisfactory position.
- It is found that NSBIL has better liquidity position than that of EBL on an average EBL has lower loan loss provision ratio than NSBIL. NPL to total loan ratio of both banks are in decreasing trend but comparatively EBL has lowest ratio as

compare to NSBIL. It is also concluded that both banks are not investing fund to priority sector as per NRB directives.

Baniya (2014) has conducted a study on “A Study on Credit Practices of Commercial Banks (With Reference to Nabil Bank Limited (NBL), Standard Chartered Bank Nepal Limited (SCBNL) and Himalayan Bank Limited)”. This study tries to find out the comparative financial performance of SCBNL, NBL and HBL, to examine the lending efficiency of the banks and the correlation and effect of lending activity into the profit of the banks. The study has found out that the measurement of lending strength in relative term has revealed that the total liability to total assets of NBL has the highest ratio. However, the performance of other two banks has not deviated far from the mean ratio of NBL and the combined average. NBL tendency to invest in government securities have resulted with the lowest ratio loans and advances to total assets ratio. NBL has deployed the highest proportion of its total deposits in earning activities and this ratio is significantly above the ratio of other two banks.

Similarly, the absolute measures of lending strength have revealed that the mean volume of net assets and deposit is highest in SCBNL with moderate variation. The volume of net assets of HBL is the least due to the low share capital, reserves and surplus in its capital mix. But the volume contributed by HBL in case of loans and advances is highly appreciable as compared to its net assets. The volume of loans and advances contributed by NBL is the greatest in the study period. NBL has the best contribution in productive as well as industrial sector of economy.

This study has further concluded that the overall liquidity strength of NBL can be considered the best among the banks. However, the liquidity risk arising from interest rate in NBL is the most likely. Since the market is highly sensitive towards the interest rate and NBL has generally been offering low interest rate as compare to other banks. The analysis of lending strength of HBL in loans and advances is the best. However, loans and advances, investments to deposits ratio have upgraded the performance of NBL. If HBL succeeded in collecting the less cheap sources of fund in future, the lending strength of HBL would push the performance of NBL and SCBNL far behind in the coming future. Also the contribution made by HBL in the productive sector of economy is highly appreciable and the best among these three commercial banks.

Bhattacharai (2015) has conducted a study on “Implementation of Directives Issued by Nepal Rastra Bank: A Comparative Study of Nepal SBI Bank Ltd. and Nepal Bangladesh Bank Ltd.” to analyze the various aspects of NRB directives such as capital adequacy and loan classification and loan provisioning. In this study, the loan classification helps to the banks to monitor the quality of their loan and advances and to take step towards the remedial action in the credit quality of their loan and advances.

The study reveal that the banks past due loans effect mostly in the performance of the banks. The NPL inversely affect the profitability of the bank. The banks are able to manage provision for the NPLs over the period as per the directives but it is not only better to manage only the NPL by making provision. Banks should focus on better lending policy to control NPL level in future. This study recommends, the banks should be very careful while analyzing the paying capacity of its credit clients. With longer period of past due, the bank will end up increasing its provisions which will keep the bottom line low if the bank is not careful.

Koirala (2016) has conducted a study on “A Study on Credit Management in Nepalese Commercial Banks”. The study aims to find out of credit in selected commercial banks and relationship between non-performing loan and loan provision in selected banks, to analyze performance of commercial banks regarding lending quality and its contribution in profitability, to examine loan loss provision in commercial banks, to evaluation the proposition of loan and the level of loan in total assets and total deposits in the Nepalese commercial banks.

This study concludes ineffective credit policy, political pressure to lend to unaccredited worthy borrowers, overvaluation of collateral are the major causes of mounting non-performing assets in government owned banks like NBL. Other factors leading to accumulation of credit is weak loan sanctioning process, ineffective credit monitoring and supervision system, economic slowdown, borrower's misconduct etc. continual review and to take remedial action to counter deterioration in credit quality.

Malla (2017) had studied six Nepalese Commercial Banks and found that selected commercial banks have managed their loan portfolio as per the standard parameter of Nepal Rastra Bank (NRB) directives 2073; however, 96.41 percent of bank's lending is on collateral basis which indicates that, banks are conservative in lending. He suggested that Nepalese banks should increase their lending on priority sector and other various type of project based lending to contribute in development of country. The major concern of risk management in banks today is managing credit risk and for better credit risk management, loan portfolio management is crucial. The bank's credit portfolio management can be determined by its credit operation. This study focuses to illustrate the status of loan portfolio management and techniques adopted by Joint Venture Commercial banks of Nepal. The present study focused on assessing sector-wise loan portfolio management of Joint Venture banks of Nepal in year 2018-19 and to examine the relationship between the sector-wise loan portfolio and profitability of the banks.

Sharma (2017) has conducted a study on “Comparative Study of Credit Management of Nepalese Commercial Banks (With Reference of Nabil Bank Ltd., Nepal Credit and Commercial Bank Ltd. and Nepal Investment Bank Ltd.)” The researcher tries to analyze credit of commercial banks. The main objectives of the study are to evaluate the proposition of credit and the level of NPAs in total loan, total deposits and total assets in selected banks.

This study reveals that banks NPL is in increasing over the study period and the most responsible factor for NPA growth are weak monitoring, less focus of lending policy while making loans and mismanagement are. Likewise, legal provision for recovery as a reason for increment in NPA in Nepalese Banks has been found the factor having least impact supervision and monitoring system has been identified as average factor. At the same time, it has been identified that commercial banks give highest priority to trade sector for lending its resources. Then it is found that the service sector is not given much priority.

Dhamala (2018) has conducted a study on “A Study on Lending Practices of Finance Companies of Nepal”. The study aims to analyze performance of finance company regarding lending quality and quantity and its contribution in profitability. This study is based on the secondary data of finance companies on loan flow and the income generated

by loan i.e. interest earnings and how this interest earning affects the overall profit of the company.

The main finding of the study is that loan and advances is one of the main sources of income of finance companies. Loan loss provision is like a byproduct of loans and advances thus, with loans and advances, loan loss provision does increase in synchronize. This study recommended that loan and advances of finance companies are increasing and the non-performing loans and loan loss provision. Hence extra efforts should be enforced to control over NPL.

## **2.4 Research Gap**

The different studies have been reviewed in the above section of this study and reveals that the limitation on their research, a new research study was required and validating. The limited findings, extensive testing and adjustment in necessary variables limits result of previous study. The studies of loan/credit management of banks were made on different period. They had studies the credit management of banks on old periods. It became necessary to do new research study on credit management of recent periods and with the new view of managing the loan structure with the portfolio management.

There are various factors that affect the lending practices. The directives of NRB change over time and commercial bank should adopt their policy with the changing time. So, up-to-date study over the change of time frame is major concern for the researcher and concerned organization as well a whole. This study covers the more recent financial data, NRB circulars, and guidelines than that of studies previously conducted. It is major concern of shareholders to know portfolio behavior of the bank; this study puts its effort to find out the factors that are related with investment of the banks.

Analysis of lending efficiency shows the efficiency of the bank. This study fulfills prevailing research gap about the in-depth analysis of lending efficiency, investment in priority and deprived sector by the banks. This study includes different tools such as ratios analysis, co-efficient of variation. This study will provide the clear conceptual idea and knowledge of the sector wise, product wise and collateral wise loan and lending

practice of selected banks to those people who have interest on financial management and working on the lending management of the financial institutions and to those people who want to gain financial knowledge about the portfolio of loan.

## **CHAPTER - III**

### **RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically it is necessary for the researcher to know not only the research methods but also the methodology. When we talk about the research methodology we not only talk of research methods but also consider the logic behind the methods. It uses in the context of our research study and explain why we are using a particular method or techniques and why are not using other so that research result is capable of being evaluated either by the researcher himself or by others. The study of research methodology gives the student the necessary training in gathering material and arranging them participating in the field work which required, and also training in techniques for collection of data appropriate to particular problem in the use of statistics and controlled experimentation and in recording evidence sorting it out and interpreting. Research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objectives (Panta, 2018).

#### **3.1 Research Design**

Research design is the planned structure and strategy of investigation conceived so as to obtain answer to research questions and to control variances. In other words, research design is the frame work for a study that helps the analysis of data related to study topic.

A research design is the arrangement of conditions for collecting and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Research design is very important for scientific investigation. Research design gives the investigator a systematic direction to research work. Actually, Research design is a plan for data collection analysis. It presents a series of guideposts to enable the researcher to process in the right direction in order to achieve the goal. A research design is the overall operational pattern of framework of the project that stipulates what information to be collected from which sources by what procedures. There are various approaches of research design. This study depends on the secondary data. It includes all

the process of collecting, verifying and evaluating of past evidence systematically and objectively to reach final conclusion. Some financial and statistical tools have been adopted to examine factors in this study. This study has adopted descriptive and analytical research design to reveal the product wise, sector wise and collateral loan portfolio of selected banks.

### **3.2 Sources of Data**

To conduct this study, secondary data are taken from annual reports of Century Commercial Bank Limited, Civil Bank Limited, NRB directives, Reports of CBS Nepal, published journals and articles on determinants of lending behavior in various sectors and previously done research works on the field of determinants of lending and their websites and the collected data are managed by pooling method for the analysis.

### **3.3 Population and Sample**

The term population of data denotes for the data of each organization which is within the boundary of specific organization. The population data for this study comprises all listed commercial banks i.e. 27 commercial banks, which are currently operating in Nepal. A represented part of population selected from it to investigating its properties is called sample. Whereas, sample are the data of those organizations, which has, been selected from that whole population for study. The sample consists of two commercial banks. Convenience sampling method is to be used while selecting sample organizations for this study. The selected sample commercial bank for the analysis is Century Commercial Bank Limited and Civil Bank Limited as they are the youngest commercial banks in Nepal and with less competitive performance in their financial reports.

### **3.4 Tools of Data Analysis**

In order to ascertain actual financial position of any firm, various analytical tools can be used. It is true that suitable or appropriate tools, according to the nature of statement and data make the analysis more effective and significant for achieving

these objective basically two sorts of tools can be used, financial and statistical. In this study therefor statistical tools are applied to achieve the objective of analyzing the product wise, sector wise and collateral wise loan portfolio management of the Century Commercial Bank Limited and Civil Bank Limited.

### **Descriptive Statistical Tools**

Descriptive statistics are numbers that are used to summarize and describe data. The word "data" refers to the information that has been collected from an experiment, a survey, a historical record, etc. Statistical tools which are used to the analysis of the data more accurately in this study are given below;

- **Arithmetic Mean**

The arithmetic mean or simple mean is the average of set of observations. It is the best value, which represent to the whole group means is the arithmetic average of a variable. Averages are measures that condense a huge mass of data into single value representing whole data. Average is statistical constants which enable us to comprehend in a single effort the significance of the whole. Mean is calculated as:

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n}$$

Where,

$\sum X$  = Sum of given Observation

n = No. of Observation

- **Standard Deviation**

The standard deviation is the absolute measure of dispersion in which the drawback presents in other measure of dispersion as it satisfied most of the requisites of a good measure of dispersion. Higher the standard deviation Higher will be the variability and vice versa. Dispersion measures the variation of the data from the central value. In other words, it helps to analyze the quality of data regarding its variability. It is used to find out standard deviation of the entire ratio. It is calculated as:

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum (X - \bar{X})^2}{n}}$$

Where,

$\sigma$  = Standard Deviation

$\Sigma (X-\bar{X})^2$  = Sum of Squares of difference between each value and mean of the observation  
 $n$  = Size of the Observation

- **Coefficient of Variation (C.V.)**

Standard deviation is the absolute measure of dispersion. The relative measure of dispersing based on the standard deviation is known as the measurement of coefficient of standard deviation. The percent of measure of co-efficient of so is called co-efficient of variation. Less CV is the more uniformity and consistency and vice versa. Only standard deviation is not appropriate to compare two pairs of variables but also CV is capable to compare two variables independently in terms of their variability. It is calculated as under:

$$\text{Coefficient of Variation (C.V.)} = \frac{\text{S. D.}}{\bar{X}} \times 100$$

Where,

C.V. = Coefficient of Variation

S.D. = Standard Deviation

$\bar{X}$  = Mean

## **CHAPTER - IV**

### **RESULTS AND DISCUSSION**

In this chapter, the data have been analyzed and interpreted using statistical analysis tools following the research methodology of the third chapter. The outcomes of the analysis have been compared with conventional standard with respect to directives of NRB. Furthermore, many suitable graphs, and diagrams have also been used to clarify the actual position and performance of the bank.

#### **4.1 Loan Portfolio Analysis**

Under this study loan portfolio of Century Commercial Bank Limited and Civil Bank Limited is analyzed under sector basis, product basis and collateral basis of lending. The loan portfolios of bank are presented below:

##### **4.1.1 Sector Wise Loan Portfolio Analysis**

The sector wise loan distribution of Century Commercial Bank limited over the study period shows that the banks has maximum lending in agricultural and forest related sector in year 2020/21 i.e. 4.47 percent of total loan and minimum in this sector in year 2014/15 i.e. 2.51 percent of total loan. On average the bank flow 3.53 percent of total loan in agricultural and forest related sector over the study period. The standard deviation in the loan flow in this sector is 0.65 percent and the variation in the ratio is 18.32 percent which show that there is less volatility in the ratio over the study period. On average the bank invested only 0.06 percent of total loan in fishery related sector over the study period and there is less consistency in loan flow of this sector. As per the guideline of NRB regarding sector wise loan, commercial banks should invest at least 10 percent of total loan and advance in agriculture and forest related sector and fishery related sector but the bank has invested only 3.53 percent in agriculture and forest related sector and only 0.06 percent in fishery related sector, total only 3.59 percent investment in this sector is found which is not followed as per the guideline and it is chargeable for the bank. The bank has invested maximum of 2.24 percent loan in mining related sector in

year 2014/15 and on average 1.12 percent out of total loan is invested in mining related sector by the bank and the lending in this sector is not as consistent and there is also high variation in loan flow in this sector as in other sector with the coefficient of variation 69.28 percent.

The bank has maximum loan in manufacturing sector in year 2014/15 i.e. 26.73 percent and minimum in year 2020/21 i.e. 17.53 percent and on average bank invested 22.19 percent loan in manufacturing sector during the study period. The consistency in the investment in this sector by the bank is more consistent than investment in mining related sector with the coefficient of variation 15.21 percent.

Bank has invested 11.35 percent out of total loan in construction sector in year 2015/16 which is the highest loan flow and the lowest loan flow in construction is 9.81 percent in year 2018/19. On average banks invested 10.39 percent in construction sector. There is more consistency in the loan investment in this sector than in electricity gas and water related sector with the coefficient of variation 5.26 percent.

Similarly, bank invested maximum loan in electricity, gas and water related sector in year 2020/21 i.e. 8.17 percent and minimum in year 2014/15 i.e. 1.66 percent. The average loan in electricity, gas and water related sector is 4.37 percent. But as per the NRB guideline banks should invest at least 5 percent of total loan in this sector hence Century Commercial Bank has not meet the NRB guideline in maintaining the loan flow in electricity, gas and water related lending.

The bank invested maximum loan in metal, computer and machinery and equipment sector in year 2019/20 i.e. 1.92 percent and minimum in year 2016/17 i.e. 1.03 percent and average loan in metal, computer and machinery and equipment sector is 1.52 percent with the coefficient of variation of 25.57 percent.

Bank has flowed loan on average 1.29 percent in transportation, communication and public utilities sector during the period. The maximum loan in this sector is 2.83 percent in year 2020/21 and minimum in year 2014/15 i.e. 0.48 percent. The coefficient of variation of lending in this sector is 63.07 percent which is not acceptable for stable loan flow practices indicating it as volatile sector. The maximum loan flow in wholesaler and retailer sector is 23.13 percent in year 2014/15 and minimum in year 2019/20 i.e. 16.69

percent of total loan. The average loan in wholesaler and retailer is 19.12 percent during the study. The variation in lending in this sector is quite less than in transportation, communication and public utilities sector i.e. 12.37 percent < 63.07 percent.

Bank invested 11.82 percent on average in finance, insurance and real estate sector during the period. The maximum loan in this sector is 12.54 percent in year 2016/17 and minimum loan in year 2020/21 i.e. 10.60 percent.

Bank flow loan in hotel and other services sector on average 4.25 percent and 4.17 percent respectively during the study period. And as per the NRB guideline loan in Hotel sector should be at least 5 percent of total loan and advance. The coefficient of variation in hotel sector is lower than that of loan in other service related sector which shows the more consistency in the investment in hotel sector by Century Commercial Bank but the bank has failed to meet the NRB requirement. The consumption loan for the bank over the study period is 6.93 percent on average. The bank has invested maximum of 10.71 percent out of total loan in this sector in year 2016/17 and minimum loan in this sector is in year 2019/20 i.e. 4.52 percent.

As a whole analysis bank has maximum loan invested in Manufacturing (Producing) related sector by the bank during the study period i.e. 22.19 percent and minimum loan invested in fishery related sector i.e. 0.06 percent. However, bank has not invested any amount in the Local Government as per the data obtained for the study.

**Table 2***Sector Wise Loan Portfolio of Century Commercial Bank Limited*

(In %)

<b>Year</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>Average</b>	<b>SD</b>	<b>CV</b>
Agricultural and Forest Related	2.51	2.98	3.75	3.37	3.67	3.96	4.47	<b>3.53</b>	<b>0.65</b>	<b>18.32</b>
Fishery Related	0.00	0.00	0.05	0.06	0.05	0.06	0.23	<b>0.06</b>	<b>0.08</b>	<b>118.27</b>
Mining Related	2.24	1.88	1.51	0.87	0.75	0.28	0.29	<b>1.12</b>	<b>0.77</b>	<b>69.28</b>
Manufacturing (Producing) Related	26.73	25.97	19.24	21.59	23.29	20.97	17.53	<b>22.19</b>	<b>3.37</b>	<b>15.21</b>
Construction	10.11	11.35	10.34	9.95	9.81	10.27	10.87	<b>10.39</b>	<b>0.55</b>	<b>5.26</b>
Electricity, Gas and Water	1.66	1.74	2.78	3.33	4.83	8.06	8.17	<b>4.37</b>	<b>2.77</b>	<b>63.49</b>
Metal Products, Machinery. & Electrical Equipment	1.05	1.27	1.03	1.72	1.82	1.92	1.81	<b>1.52</b>	<b>0.39</b>	<b>25.57</b>
Transportation, Communication. and Public Utilities	0.48	0.58	1.14	1.06	1.07	1.83	2.83	<b>1.29</b>	<b>0.81</b>	<b>63.07</b>
Wholesaler & Retailer	23.13	20.76	18.98	20.03	17.41	16.69	16.85	<b>19.12</b>	<b>2.37</b>	<b>12.37</b>
Finance, Insurance and Real Estate	11.32	12.49	12.54	12.13	12.09	11.59	10.60	<b>11.82</b>	<b>0.70</b>	<b>5.89</b>
Hotel or Restaurant	4.97	4.19	4.01	4.69	3.96	3.39	4.57	<b>4.25</b>	<b>0.53</b>	<b>12.46</b>
Other Services	4.78	5.19	3.83	3.13	3.36	3.98	4.92	<b>4.17</b>	<b>0.80</b>	<b>19.25</b>
Consumption Loans	6.92	6.35	10.71	7.97	6.39	4.52	5.62	<b>6.93</b>	<b>1.98</b>	<b>28.60</b>
Local Government	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>	<b>0.00</b>	-
Others	4.11	5.25	10.09	10.11	11.48	12.48	11.24	<b>9.25</b>	<b>3.25</b>	<b>35.08</b>
<b>Total Loan</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>			

Note: From Monthly Statistics Report of Nepal Rastra Bank

Similarly, the sector wise loan distribution of Civil Bank limited over the study period shows that the banks has maximum lending in agricultural and forest related sector in year 2020/21 i.e. 6.53 percent of total loan and minimum in this sector in year 2017/18 i.e. 4.26 percent of total loan. On average the bank flow 5.03 percent of total loan in agricultural and forest related sector over the study period. The standard deviation in the loan flow in this sector is 0.78 percent and the variation in the ratio is 15.52 percent which show that there is less volatility in the ratio over the study period. On average the bank invested only 0.03 percent of total loan in fishery related sector over the study period and there is less consistency in loan flow of this sector. As per the guideline of NRB regarding sector wise loan, commercial banks should invest at least 10 percent of total loan and advance in agriculture and forest related sector and fishery related sector but the bank has invested only 5.03 percent in agriculture and forest related sector and only 0.03 percent in fishery related sector, total only 5.06 percent investment in this sector is found which is not followed as per the guideline and it is chargeable for the bank.

The bank has invested maximum of 0.26 percent loan in mining related sector in year 2014/15 and on average 0.12 percent out of total loan is invested in mining related sector by the bank and the lending in this sector is not as consistent and there is also high variation in loan flow in this sector as in other sector with the coefficient of variation 66.82 percent.

The bank has maximum loan is manufacturing sector in year 2014/15 i.e. 25.54 percent and minimum in year 2020/21 i.e. 15.90 percent and on average bank invested 21.12 percent loan in manufacturing sector during the study period. The consistency in the investment in this sector by the bank is more consistent than investment in mining related sector with the coefficient of variation 15.38 percent.

Bank has invested 7.42 percent out of total loan in construction sector in year 2014/15 which is the highest loan flow and the lowest loan flow in construction is 5.16 percent in year 2019/20. On average banks invested 6.39 percent in construction sector. There is more consistency in the loan investment in this sector than in electricity gas and eater related sector with the coefficient of variation 13.78 percent.

Similarly, bank invested maximum loan in electricity, gas and water related sector in year 2019/20 i.e. 7.58 percent and minimum in year 2014/15 i.e. 2.16 percent. The average loan in electricity, gas and water related sector is 4.79 percent. But as per the NRB guideline banks should invest at least 5 percent of total loan in this sector hence Civil Bank has not meet the NRB guideline in maintaining the loan flow in electricity, gas and water related lending.

The bank invested maximum loan in metal, computer and machinery and equipment sector in year 2020/21 i.e. 1.25 percent and minimum in year 2016/17 i.e. 0.31 percent and average loan in metal, computer and machinery and equipment sector is 0.74 percent with the coefficient of variation of 50.28 percent.

Bank has flowed loan on average 2.79 percent in transportation, communication and public utilities sector during the period. The maximum loan in this sector is 4.42 percent in year 2016/17 and minimum in year 2015/16 i.e. 1.17 percent. The coefficient of variation in lending in this sector is 39.77 percent which is slightly lower than lending in metal, computer and machinery sector.

The maximum loan flow in wholesaler and retailer sector is 29.74 percent in year 2015/16 and minimum in year 2019/20 and 2017/18 i.e. 19.05 percent of total loan. The average loan in wholesaler and retailer is 23.31 percent during the study. The variation in lending in this sector is quite less than in transportation, communication and public utilities sector i.e. 15.73 percent < 39.77 percent.

Bank invested 12.19 percent on average in finance, insurance and real estate sector during the period. The maximum loan in this sector is 12.83 percent in year 2019/20 and minimum loan in year 2014/15 i.e. 11.51 percent.

Bank flow loan in hotel and other services sector on average 4.16 percent and 5.66 percent respectively during the study period. And as per the NRB guideline loan in Hotel sector should be at least 5 percent of total loan and advance. The coefficient of variation in hotel sector is lower than that of loan in other service related sector which shows the more consistency in the investment in hotel sector by Civil bank but the bank has failed to meet the NRB requirement.

The consumption loan for the bank over the study period is 6.79 percent on average. The bank has invested maximum of 7.75 percent out of total loan in this sector in year 2018/19 and minimum loan in this sector is in year 2014/15 i.e. 5.13 percent.

As a whole analysis bank has maximum loan invested in wholesaler and retailer sector by the bank during the study period i.e. 23.31 percent and minimum loan invested in local government sector i.e. 0.01 percent.

Table 3

*Sector Wise Loan Portfolio of Civil Bank Limited*

(In %)

Year	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Average	SD	CV
Agricultural and Forest Related	4.32	4.69	5.44	4.26	5.09	4.85	6.53	<b>5.03</b>	<b>0.78</b>	<b>15.52</b>
Fishery Related	0.03	0.01	0.03	0.01	0.02	0.03	0.08	<b>0.03</b>	<b>0.02</b>	<b>83.98</b>
Mining Related	0.26	0.19	0.15	0.08	0.05	0.02	0.12	<b>0.12</b>	<b>0.08</b>	<b>66.82</b>
Manufacturing (Producing) Related	25.54	20.33	18.25	23.36	22.55	21.90	15.90	<b>21.12</b>	<b>3.25</b>	<b>15.38</b>
Construction	7.42	6.65	6.87	7.23	6.03	5.16	5.41	<b>6.39</b>	<b>0.88</b>	<b>13.78</b>
Electricity, Gas and Water	2.16	2.41	3.66	4.80	6.82	7.58	6.11	<b>4.79</b>	<b>2.14</b>	<b>44.69</b>
Metal Products, Mach. & Electronic. Equipment	0.44	0.34	0.31	0.90	1.00	0.95	1.25	<b>0.74</b>	<b>0.37</b>	<b>50.28</b>
Transportation., Com. and Public Utilities	1.91	1.17	4.42	3.54	2.14	3.05	3.31	<b>2.79</b>	<b>1.11</b>	<b>39.77</b>
Wholesaler & Retailer	23.75	29.74	26.27	22.50	20.56	19.05	21.29	<b>23.31</b>	<b>3.67</b>	<b>15.73</b>
Finance, Insurance and Real Estate	11.51	11.79	11.60	12.64	12.15	12.83	12.77	<b>12.19</b>	<b>0.56</b>	<b>4.62</b>
Hotel or Restaurant	4.81	4.72	4.25	3.34	4.07	3.58	4.33	<b>4.16</b>	<b>0.55</b>	<b>13.12</b>
Other Services	9.39	7.70	6.68	4.65	4.21	3.53	3.49	<b>5.66</b>	<b>2.29</b>	<b>40.44</b>
Consumption Loans	5.13	6.47	6.71	6.59	7.75	7.44	7.44	<b>6.79</b>	<b>0.88</b>	<b>12.99</b>
Local Government	0.00	0.00	0.00	0.00	0.00	0.00	0.10	<b>0.01</b>	<b>0.04</b>	<b>264.58</b>
Others	3.33	3.79	5.37	6.06	7.54	10.02	11.88	<b>6.86</b>	<b>3.17</b>	<b>46.25</b>
<b>Total Loan</b>	100.00	100.00	100.00	100.00	100.00	100.00	100.00			

Note: From Monthly Statistics Report of Nepal Rastra Bank

## Sector Wise Loan Portfolio Comparison

Sector wise lending means there are various sectors that the bank has opportunity to invest. NRB have issued in its directives that commercial banks have to invest up to only 40 percent in a specific sector including compulsory of certain percent in the deprived and priority sector so that the backward sector will also get benefit from financial facility.

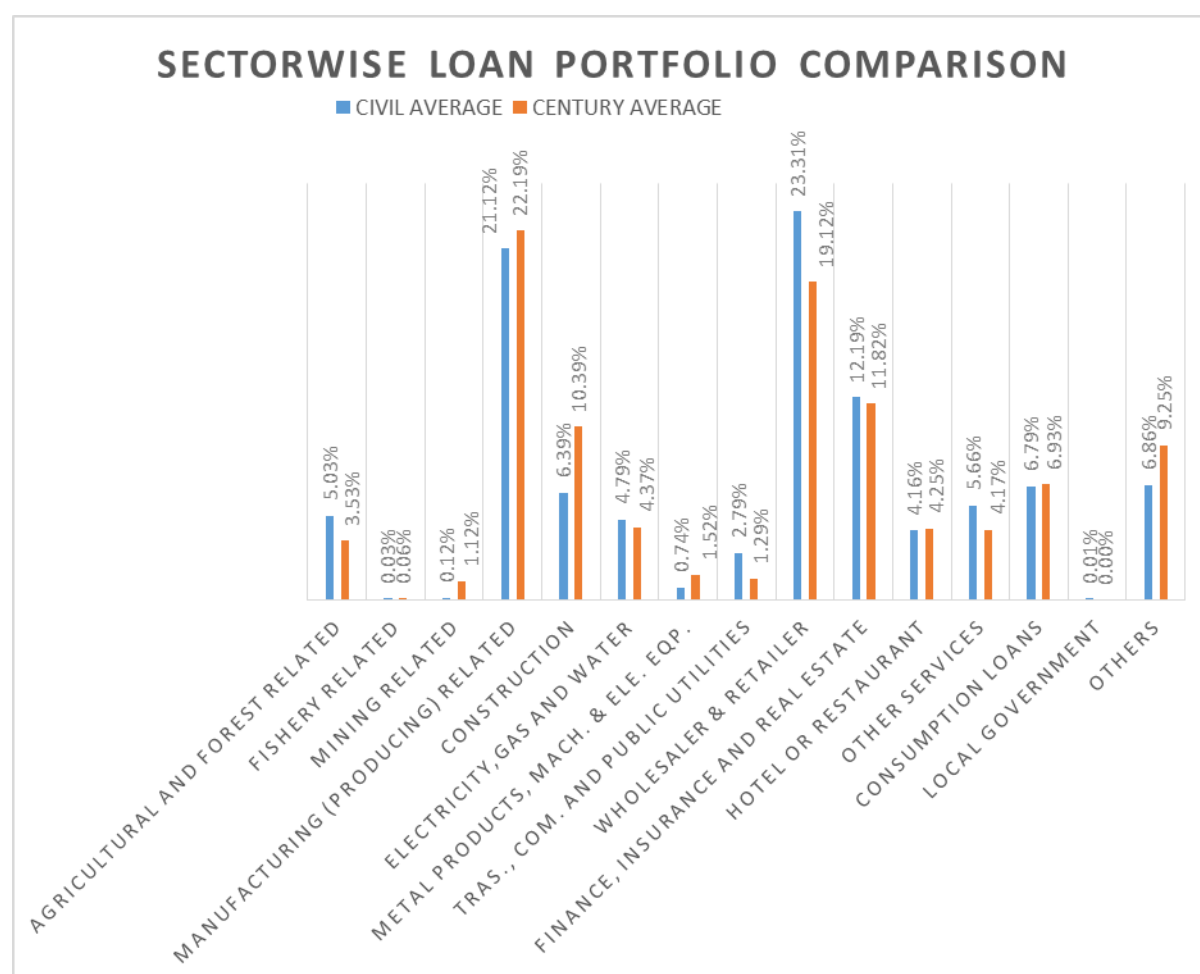


Figure 1 Sector Wise Average Loan Portfolio Comparison

As per the bar diagram presented above, selected commercial banks has deployed different percent of portfolio in different sector. In an average Civil Bank Limited has deployed the more volume of credit on agriculture sector till mid July 2021 as compared to Century Commercial Bank Limited. Under the heading of fishery related and mining related both bank has deployed small volume of amount (Dahal & Dahal, 2012). Similarly, it is observed that CCBL has been mobilizing slightly more weight to production credit on the total credit mix, than of CBL. In the case of construction, credit

investment with of CCBL is comparatively much higher than of CBL. This indicates that CCBL is more interested for constructed related loans as such loan will be availed for long period of time generating long term income. Though there seems similar investment made in sector of Electricity, Gas and Water by both banks, Metal production credit of CCBL is higher than CBL. Transportation equipment heading has more portfolio distribution made by CBL. The average weight of wholesale and retail loan is more for the CBL as in comparison to CCBL but CBL has more volatility in loan distribution as compared to CCBL. Weight of finance, insurance and fixed assets sector and hotel or restaurant sector is more or less of same weight for both banks. Under the heading of other service credit, weight of CBL is slightly higher. Weight of consumable loan is similar and assigning moderated level funds for this sector. Under the local government heading no any fund is allocated by the CCBL but CBL has allocated minimal amount. Lastly, CCBL is ahead of allocating tentatively higher fund for other heading as compared to CBL.

#### **4.1.2 Product Wise Loan Portfolio Analysis**

The product wise loan distribution of Century Commercial Bank Limited over the study period shows that bank invested maximum loan in term loan in year 2019/20 i.e. 33.56 percent of total loan and minimum term loan invested in year 2014/15 i.e. 23.56 percent. On average 27.29 percent loan invested in term loans during the study period.

Bank flow maximum overdraft loan in year 2014/15 i.e. 25.52 percent and minimum overdraft loan in year 2020/21 i.e. 18.11 percent. On average there is 21.49 percent loan flow in overdraft loan in the bank.

Bank has flow 4.61 percent of total loan in trust receipt loan in year 2015/16 which is maximum over the period and the minimum trust receipt loan is in year 2020/21 i.e. 1.33 percent. The average trust receipt loan of the bank is 2.79 percent of total loan.

The maximum demand and other working capital loan is 23.12 percent in year 2014/15 and minimum in year 2016/17 i.e. 17.70 percent, and on average there is 19.91 percent loan in demand and other working capital loan during the study.

There is maximum personal home loan in year 2015/16 and minimum in year 2020/21 i.e. 9.11 percent and 5.51 percent respectively. The average personal home loan of the bank over the study period is 7.08 percent.

The bank has maximum real estate loan of 7.75 percent in year 2016/17 and minimum in year 2014/15 i.e. 5.16 percent and the average real estate loan of the bank during the study is 6.51 percent. The margin nature loan of the bank is on average 1.89 percent over the study period and the maximum margin nature loan is 3.41 percent in year 2020/21 and minimum is 0.42 percent in year 2014/15.

Bank has flow maximum hire purchase loan in year 2016/17 i.e. 6.40 percent and minimum in year 2020/21 i.e. 2.98 percent and the average hire purchase loan of the bank is 4.14 percent over the period. Bank has invested minimum loan in deprived sector i.e. 4.38 percent in year 2015/16 and maximum loan in deprived sector is in year 2016/17 i.e. 5.49 percent of total loan and the average loan on deprived sector of the bank is 4.86 percent during the period. As per the NRB guideline bank should have 5 percent loan flow in deprived sector and same has not been obtained on average by the bank.

Bank has invested maximum 0.77 percent out of total loan in bills purchased loan in year 2014/15 and 0.19 percent on average bank invest loan in this sector. Similarly, bank has invested in unclassified or other product with an average of 3.84 percent for the study period.

As a whole bank has invested maximum loan in term loan during the study on average i.e. 27.29 percent followed by overdraft loan with average of 21.49 percent and minimum loan invested in bills purchased loan i.e. 0.19 percent.

Table 4

*Product Wise Loan Portfolio of Century Commercial Bank Limited*

(In %)

<b>Year</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>Average</b>	<b>SD</b>	<b>CV</b>
Term Loan	23.56	25.17	23.82	26.32	30.24	33.56	28.37	<b>27.29</b>	<b>3.66</b>	<b>13.42</b>
Overdraft	25.52	23.36	21.18	22.72	21.03	18.53	18.11	<b>21.49</b>	<b>2.64</b>	<b>12.26</b>
Trust Receipt Loan / Import Loan	2.43	4.61	2.59	4.25	2.25	2.08	1.33	<b>2.79</b>	<b>1.19</b>	<b>42.72</b>
Demand & Other Working Capital Loan	23.12	19.21	17.70	17.89	18.81	19.97	22.65	<b>19.91</b>	<b>2.18</b>	<b>10.95</b>
Residential Personal Home Loan	7.75	9.11	8.67	6.52	6.10	5.89	5.51	<b>7.08</b>	<b>1.43</b>	<b>20.18</b>
Real Estate Loan	5.16	6.54	7.75	7.15	6.41	5.34	7.19	<b>6.51</b>	<b>0.97</b>	<b>14.89</b>
Margin Nature Loan	0.42	1.37	3.09	2.31	1.59	1.07	3.41	<b>1.89</b>	<b>1.09</b>	<b>57.64</b>
Hire Purchase Loan	3.64	3.36	6.40	4.81	4.23	3.58	2.98	<b>4.14</b>	<b>1.16</b>	<b>27.99</b>
Deprived Sector Loan	4.50	4.38	5.49	4.58	5.00	5.37	4.74	<b>4.86</b>	<b>0.44</b>	<b>8.95</b>
Bills Purchased	0.77	0.08	0.39	0.01	0.01	0.01	0.03	<b>0.19</b>	<b>0.29</b>	<b>157.60</b>
Other Product	3.13	2.81	2.91	3.44	4.32	4.61	5.66	<b>3.84</b>	<b>1.06</b>	<b>27.59</b>
<b>Total Loan</b>	100.00	100.00	100.00	100.00	100.00	100.00	100.00			

Note: From Monthly Statistics Report of Nepal Rastra Bank

The product wise loan distribution of Civil Bank limited over the study period shows that bank invested maximum loan in term loan in year 2020/21 i.e. 25.58 percent of total loan and minimum term loan invested in year 2014/15 i.e. 19.75 percent. On average 21.93 percent loan invested in term loans during the study period. Bank has provided maximum overdraft loan in year 2014/15 i.e. 20.67 percent and minimum overdraft loan in year 2019/20 i.e. 15.44 percent. On average there is 18.33 percent loan flow in overdraft loan in the bank.

Bank has flow 10.75 percent of total loan in trust receipt loan in year 2019/20 which is maximum over the period and the minimum trust receipt loan is in year 2014/15 i.e. 3.57 percent. The average trust receipt loan of the bank is 7.08 percent of total loan.

The maximum demand and other working capital loan is 32.84 percent in year 2014/15 and minimum in year 2019/20 i.e. 18.83 percent, and on average there is 25.14 percent loan in demand and other working capital loan during the study. There is maximum personal home loan in year 2014/15 and minimum in year 2020/21 i.e. 4.52 percent and 3.06 percent respectively. The average personal home loan of the bank over the study period is 3.91 percent.

The bank has maximum real estate loan of 7.75 percent in year 2019/20 and minimum in year 2015/16 i.e. 3.07 percent and the average real estate loan of the bank during the study is 4.80 percent. The margin nature loan of the bank is on average 2.10 percent over the study period and the maximum margin nature loan is 4.61 percent in year 2020/21 and minimum is 0.05 percent in year 2014/15.

Bank has flow maximum hire purchase loan in year 2016/17 i.e. 8.54 percent and minimum in year 2020/21 i.e. 3.27 percent and the average hire purchase loan of the bank is 5.95 percent over the period. Bank has invested minimum loan in deprived sector i.e. 4.37 percent in year 2014/15 and maximum loan in deprived sector is in year 2020/21 i.e. 7.31 percent of total loan and the average loan on deprived sector of the bank is 5.64 percent during the period. As per the NRB guideline bank should have 5 percent loan flow in deprived sector and same has been obtained on average by the bank.

Bank has invested 0.37 percent out of total loan in bills purchased loan in year 2014/15 and 0.12 percent on average bank invest loan in this sector.

As a whole bank has invested maximum loan in demand and other working capital loan during the study on average i.e. 25.14 percent and minimum loan invested in bills purchased loan i.e. 0.12 percent.

Table 5

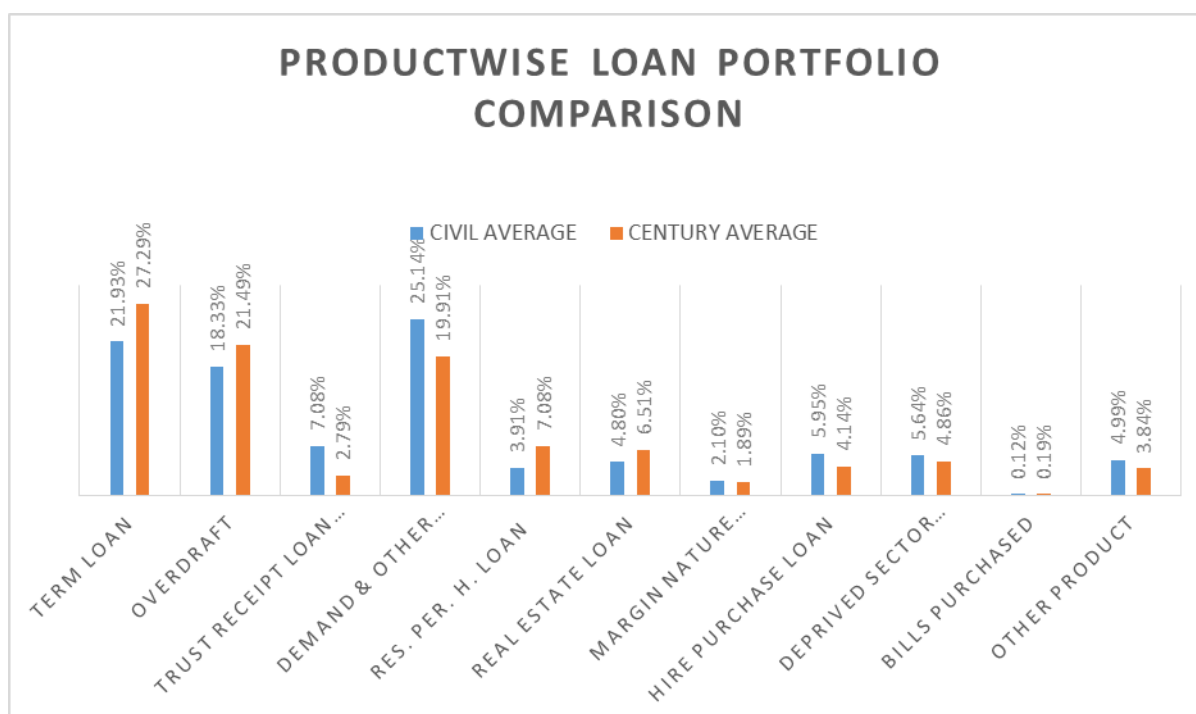
*Product Wise Loan Portfolio of Civil Bank Limited**(In %)*

<b>Year</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>Average</b>	<b>SD</b>	<b>CV</b>
Term Loan	19.75	20.33	20.45	20.55	22.72	24.11	25.58	<b>21.93</b>	<b>2.24</b>	<b>10.22</b>
Overdraft	20.67	21.49	19.69	17.43	15.52	15.44	18.08	<b>18.33</b>	<b>2.39</b>	<b>13.07</b>
Trust Receipt Loan / Import Loan	3.57	7.21	4.17	9.73	7.47	10.75	6.68	<b>7.08</b>	<b>2.63</b>	<b>37.19</b>
Demand & Other Working Capital Loan	32.84	30.50	26.52	22.79	23.25	18.83	21.28	<b>25.14</b>	<b>5.06</b>	<b>20.13</b>
Residential. Personal Home Loan	4.52	3.33	4.37	4.50	4.25	3.35	3.06	<b>3.91</b>	<b>0.63</b>	<b>16.20</b>
Real Estate Loan	3.36	3.07	4.40	3.53	6.45	7.75	5.01	<b>4.80</b>	<b>1.75</b>	<b>36.44</b>
Margin Nature Loan	0.05	0.14	0.77	1.92	3.45	3.76	4.61	<b>2.10</b>	<b>1.86</b>	<b>88.39</b>
Hire Purchase Loan	6.66	6.98	8.54	6.62	5.40	4.22	3.27	<b>5.95</b>	<b>1.79</b>	<b>30.01</b>
Deprived Sector Loan	4.37	4.58	6.01	6.22	5.76	5.20	7.31	<b>5.64</b>	<b>1.01</b>	<b>18.00</b>
Bills Purchased	0.37	0.26	0.15	0.07	0.00	0.00	0.02	<b>0.12</b>	<b>0.15</b>	<b>117.85</b>
Other Product	3.84	2.10	4.95	6.65	5.73	6.59	5.11	<b>4.99</b>	<b>1.61</b>	<b>32.20</b>
<b>Total Loan</b>	100.00	100.00	100.00	100.00	100.00	100.00	100.00			

Note: From Monthly Statistics Report of Nepal Rastra Bank

### Product Wise Average Loan Portfolio Comparison

Loan Product means a specific type of consumer and institutional loan offered by Bank and financial institution that is licensed by the central bank of a nation. Loan Product means one of the various types of credit facility provided by the BFIs to consumer and organization as per their requirement backed by the collaterals or without any collaterals also. Here a diagram has been presented showing product wise loan portfolio segregation of selected banks:



*Figure 2 Product Wise Average Loan Portfolio Comparison*

Figure 2 depicts, term loan and overdraft facility credit ratio of CBL is lower as compared to CCBL. It indicates that CCBL has provided more loan for the consumer and different institution in the term and revolving nature as per the need of customer. So, till the date in an average, as compared with CCBL, CBL is mobilizing higher credit under heading of demand and other working capital loan and in trust receipt loan, defining CBL is more comfortable in providing loan to different business unit to grab their other banking related activities from their organization. The study and the diagram above shows that, CCBL is highly focused with consumer banking credit. It can be defined as CCBL has been providing higher residential personal home loan than of CBL. Further, somehow CCBL has also invested more credit in real estate loan where a consumer and institutions are

utilizing the funds for investment in land and buildings for commercial purpose. Since, CBL is focused in business loan, their investment in margin loans are also more in comparison to CCBL. Talking about the hire purchase loan facility provided by the banks, CBL is ahead of CCBL though it is one of the higher risk bearing loan product in the banking industry. Deprived sector credit includes low income and particularly socially backward women, tribes, lower caste, blind, hearing impaired and physically persons and squatter family, CBL stood ahead of CCBL for deploying their fund in this product. The credit weight of bills purchase heading of both bank seems more or less similar, however credit weight of uncategorized product by CBL is higher as compared to CCBL.

#### **4.1.3 Collateral Wise Loan Portfolio**

The collateral wise loan distribution of Century Commercial Bank limited over the study period shows that bank invested maximum of 1.66 percent loan in gold and silver in year 2014/15 and minimum of 0.05 percent loan in gold and silver in year 2020/21, on average bank invest 0.41 percent loan in gold and silver.

The bank has invested 3.41 percent loan in non-government securities which is maximum of the period in year 2020/21 and the minimum investment in loan is 0.42 percent in year 2014/15 and the average loan in non-government securities over the period is 1.92 percent of total loan and there is 57.57 percent variation in the lending in non-government securities making it one of the less consistent investment.

Similarly, there is maximum of 1.21 percent loan flow in fixed deposit receipt in year 2014/15 and minimum in year 2019/20 i.e. 0.25 percent. The average loan in fixed deposit receipts is 0.71 percent of total loan.

The loan disbursement in collateral of properties is maximum in year 2019/20 i.e. 93.96 percent and minimum is 91.03 percent in year 2014/15. Bank has invested on average 92.56 percent loan in collateral of properties and there is 1.22 percent variation in the lending in collateral of properties making it most consistent investment.

The bank also invested minimum of 3.17 percent loan against various guarantees in year 2020/21 and maximum of 4.49 percent in year 2014/15 and on average there is 3.92

percent loan flow against various guarantees by the bank. As a whole bank has invested maximum loan in collateral of properties on average during the study period, i.e. 92.60 percent and the minimum investment in government securities.

Table 6

*Collateral Wise Loan Portfolio of Century Commercial Bank Limited**(In %)*

<b>Year</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>Average</b>	<b>SD</b>	<b>CV</b>
Gold and Silver	1.66	0.59	0.29	0.13	0.10	0.07	0.05	<b>0.41</b>	<b>0.58</b>	<b>141.22</b>
Government Securities	0.00	0.01	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Non-Governmental Securities	0.42	1.37	3.09	2.48	1.59	1.07	3.41	<b>1.92</b>	<b>1.10</b>	<b>57.57</b>
Fixed Deposit Receipts	1.21	0.99	0.92	0.71	0.64	0.25	0.28	<b>0.71</b>	<b>0.36</b>	<b>50.33</b>
Collateral of Properties	91.03	92.24	91.21	93.21	93.55	93.96	92.76	<b>92.56</b>	<b>1.13</b>	<b>1.22</b>
Against security of Bill	0.77	0.08	0.40	0.03	0.03	0.01	0.03	<b>0.19</b>	<b>0.29</b>	<b>149.07</b>
Against Guarantee	4.49	4.40	4.03	3.33	3.82	4.18	3.17	<b>3.92</b>	<b>0.51</b>	<b>12.94</b>
Others	0.42	0.34	0.06	0.11	0.28	0.47	0.29	<b>0.28</b>	<b>0.15</b>	<b>54.39</b>
<b>Total Loan</b>	100.00	100.00	100.00	100.00	100.00	100.00	100.00			

Note: From Monthly Statistics Report of Nepal Rastra Bank

The collateral wise loan distribution of Civil Bank limited over the study period shows that bank invested maximum of 1.10 percent loan in gold and silver in year 2014/15 and minimum of 0.13 percent loan in gold and silver in year 2020/21, on average bank invest 0.65 percent loan in gold and silver.

The bank has invested 4.62 percent loan in non-government securities which is maximum of the period and the minimum investment in loan is 0.06 percent in year 2014/15 and the average loan in non-government securities over the period is 2.16 percent of total loan and there is 83.81 percent variation in the lending in non-government securities making it one of the less consistent investment.

Similarly, there is maximum of 0.62 percent loan flow in fixed deposit receipt in year 2020/21 and minimum in year 2014/15 i.e. 0.02 percent. The average loan in fixed deposit receipts is 0.31 percent of total loan.

The loan disbursement in collateral of properties is maximum in year 2017/18 i.e. 92.22 percent and minimum is 89.45 percent in year 2020/21. Bank has invested on average 91.21 percent loan in collateral of properties.

The bank also invested maximum of 6.09 percent loan against various guarantees in year 2015/16 and minimum of 3.39 percent in year 2016/17 and on average there is 4.52 percent loan flow against various guarantees by the bank. In other collaterals, bank has provided maximum loan flow in the year 2015/16 and minimum in the year 2020/21.

As a whole bank has invested maximum loan in collateral of properties on average during the study period i.e. 91.21 percent and the minimum investment in government securities i.e. 0.01 percent.

Table 7

*Collateral Wise Loan Portfolio of Civil Bank Limited*

Year	In (%)									
	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Average	SD	CV
Gold and Silver	1.10	1.00	0.77	0.64	0.49	0.39	0.13	<b>0.65</b>	<b>0.34</b>	<b>52.62</b>
Government Securities	0.00	0.00	0.00	0.00	0.00	0.00	0.10	<b>0.01</b>	<b>0.04</b>	<b>0.00</b>
Non-Governmental Securities	0.06	0.14	1.21	1.92	3.33	3.85	4.62	<b>2.16</b>	<b>1.81</b>	<b>83.81</b>
Fixed Deposit Receipts	0.02	0.08	0.47	0.36	0.37	0.28	0.62	<b>0.31</b>	<b>0.21</b>	<b>66.71</b>
Collateral of Properties	91.63	90.82	91.76	92.22	91.05	91.53	89.45	<b>91.21</b>	<b>0.90</b>	<b>0.99</b>
Against security of Bill	0.37	0.50	1.73	0.07	0.00	0.00	0.00	<b>0.38</b>	<b>0.63</b>	<b>164.92</b>
Against Guarantee	5.80	6.09	3.39	4.14	4.07	3.48	4.66	<b>4.52</b>	<b>1.07</b>	<b>23.61</b>
Others	1.02	1.36	0.66	0.66	0.69	0.47	0.42	<b>0.75</b>	<b>0.33</b>	<b>43.57</b>
<b>Total Loan</b>	100.00	100.00	100.00	100.00	100.00	100.00	100.00			

Note: From Monthly Statistics Report of Nepal Rastra Bank

### Collateral Wise Average Loan Portfolio Comparison

None of the banks invest without the security. Holding security means to be assured that the bank will recover the lending amount if client did not pay back the principal and interest in the due course of time. So study has been done to find out the collateral hold by the selected banks through the figure attached below:

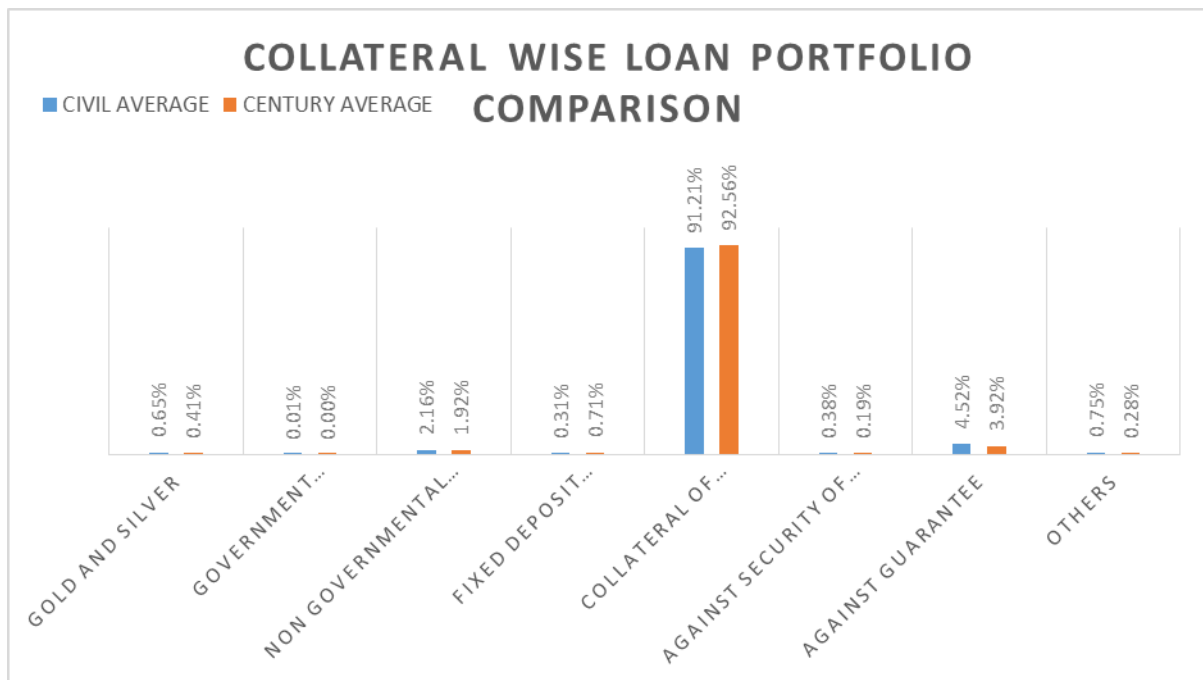


Figure 3 Collateral Wise Average Loan Portfolio Comparison

Above graph and table represents, CBL is maintaining slightly higher security on gold and silver where CCBL has less security. In the case of government security CBL has been holding almost nil security, where CCBL does not have any governmental security. CBL and CCBL have more or less same security under the heading of non-governmental securities, fixed deposit receipts and under heading against security of bill. In context of holding collateral of properties, it is observed that CCBL is ahead of CBL as fixed assets are very secure for the loan back up. However, CBL has slightly higher security under the heading against guarantee and under other heading.

## 4.2 Major Findings and Discussion

- The sector wise loan flow of the bank is in various sectors as per the report of the NRB monthly statistics and it is find that the bank invest in agricultural and forest related, fishery related, mining related, manufacturing (producing) related, construction, electricity, gas and water, metal products, mach. and electricity equipment., transportation., com. and public utilities, wholesaler and retailer, finance, insurance and real estate, hotel or restaurant, other services, consumption loans, local government and various other sectors. The maximum investment by the CBL is in wholesaler and retailer sector i.e. 23.31 percent on average and minimum loan invested in local government related sector i.e. 0.01 percent on average during the study period. However, the maximum investment by the CCBL is in manufacturing (Producing) related sector i.e. 22.19 percent on average and minimum loan invested in fishery related sector i.e. 0.06 percent on average.
- As per the guideline of NRB regarding sector wise loan, commercial banks should invest at least 10 percent of total loan and advance in agriculture and forest related sector and fishery related sector but the both bank has invested less than 10 percent in agriculture and forest related sector and in fishery related sector, which is not followed as per the guideline and it is chargeable for the bank.
- As per the prior and recent data, it is found that Nepalese banks have well managed the sector wise loan portfolio as prescribed by the NRB directives. It also indicates that no Nepalese banks have ever breached the boundary of 40 percent limitation on sector-wise loan investment.
- Under product basis banks flow loan in various product like; term loan, overdraft, trust receipt loan / import loan, demand and other working capital loan, residential personal home loan, real estate loan, margin nature loan, hire purchase loan, deprived sector loan, bills purchased and other various products categories. The maximum loan invested by CBL is in demand and other working capital loan during the study i.e. 25.14 percent on average and minimum loan invested in bills purchased loan i.e. 0.12 percent on average and as per the CCBL, maximum loan

is invested in term loan during the study i.e. 27.29 percent on average and minimum loan invested in bills purchased loan i.e. 0.19 percent on average.

- CBL has invested minimum loan in deprived sector i.e. 4.37 percent in year 2014/15 and maximum loan in deprived sector is in year 2020/21 i.e. 7.31 percent of total loan and the average loan on deprived sector of the bank is 5.64 percent during the period. As per the NRB guideline bank should have 5 percent loan flow in deprived sector and the bank has provided adequate loan on average. However, CCBL invested minimum loan in deprived sector i.e. 4.38 percent in year 2015/16 and loan more than 5.00 percent in year 2016/17, 2018/19, 2019/20 of total loan but the average loan on deprived sector of the bank is 4.86 percent during the period, so it is considered that CCBL has not provided adequate loan on average.
- The banks collateral wise loan disbursement is in gold and silver, government securities, non-governmental securities, fixed deposit receipts, collateral of properties, against security of bill, against guarantee and other various collaterals. As per the data obtained, CCBL has invested maximum loan in collateral of properties on average during the study period i.e. 92.56 percent and the minimum investment against security of bills i.e. 0.19 percent. Further, CBL has invested maximum loan in collateral of properties on average during the study period i.e. 91.21 percent and the minimum investment in Government Securities i.e. 0.01 percent.
- Though, loan against gold and silver is considered most secured sector for lending. As per sample testing on security wise loan portfolio management of loan against gold and silver, CBL leads the way with 0.65 percent followed by CCBL with 0.41 percent exposures. Similarly, Loan against fixed deposit is also the most secured loan. CCBL has higher loan against fixed deposit with 0.71 percent and CBL having 0.31 percent loan on total loans.

## **CHAPTER – V**

### **SUMMARY AND CONCLUSIONS**

The summary has been presented along with conclusion and actionable recommendations. This is brief introduction to all the chapters of the study as well as the overall summary from the analysis of the relevant data. Since a study would not be complete without any suggestive findings, the study has also tried to point out errors in the determinants of lending in commercial banks in Nepal as well as the corrective suggestions for the elimination of the same, with the hope of giving directions for further growth and improvement in the bank's operation.

#### **5.1 Summary**

The banking sector is largely responsible for collecting household savings in terms of different types of deposits and regulating them into the society by lending them in different sectors of the economy. The banking sector has been expanding in the most remote areas of the country and has experienced a good deal in the growth of the economy by lending its resources in small scale industries under intensive banking program that has enable the banks to share economic growth of the country.

Being the first chapter, as an introduction, this study basically provides the brief background of the bank regarding its establishment, its capital composition and its vision. As there are many commercial banks only two commercial banks-CCBL and CBL are taken for sample study. This study gives brief view of credit aspect and tried to analyze sector wise loans and advances, collateral wise loans and advances, and product wise loans and advances which is set as an objective of the study.

Chapter second deals with the overall review of credit related issues of other relevant studies in related areas so that all part of studies can be conducted. This study deals with major review of literature related to credit management and credit portfolio analysis in more descriptive and detailed manner. It consists of review from other articles, books, journals, research studies and conceptual review of overall banking sector and its growth in Nepal, legal frame work, guidelines and directives of Nepal Rastra Bank etc.

Chapter third consists of research methodology designed to solve the research problems. In this study among many tools of analysis, statistical tools are used to draw out conclusion. All the data are taken from the secondary sources- Annual reports of banks, reports form NRB, etc. so accuracy of data depends upon the publisher. Only seven years from 2014/15 to 2020/21 data are taken so the results may not be fully applicable and the collected data are presented in organized form in Microsoft excel and the descriptive statistics analysis result has been drawn and presented and interpreted in the presentation and analysis part of the study. Since only sample bank-CCBL and CBL are taken for study, this study may not be applicable to other bank and financial institution.

Fourth Chapter shows the presentation, analysis and interpretation of relevant sampled data of selected commercial bank. Various types of statistical tools are calculated, presented and those data are compared in proper diagram to show the real picture of the banks.

The analysis on the sector wise loan portfolio of the selected banks, it is found that there is maximum loan invested in manufacturing (producing) related sector by the CCBL during the study period i.e. 22.19 percent and minimum loan invested in fishery related sector i.e. 0.06 percent, whereas CBL invested maximum loan in wholesale and retailer related sector during the study period i.e. 23.31 percent and minimum loan invested in local government related sector i.e. 0.01 percent. Deprived sector credit ratio of CBL is higher enough than CCBL. Looking at the Average figure from mid July 2015 to mid-July 2021, credit deployment under the heading of agriculture is more or less same for selected bank. Mining sector is seems ignored by CBL whereas CCBL has invested some portion of loan in this sector. CCBL is focusing on construction credit so the weight of construction credit is higher for CCBL compared to CBL. Metal production credit of SBI is higher than other. Under the heading of transportation communication CBL has more weight in credit compared to CCBL. Weight of consumable loan is for the selected bank seems more or less same. Under the local government heading more or less same fund is allocated from the selected banks. Similarly, CCBL is allocating tentatively more fund compared to CBL for other heading.

The product wise loan portfolio analysis found that the maximum loan invested by CBL is in demand and other working capital loan during the study i.e. 25.14 percent on average and minimum loan invested in bills purchased loan i.e. 0.12 percent on average and as per the CCBL, maximum loan is invested in term loan during the study i.e. 27.29 percent on average and minimum loan invested in bills purchased loan i.e. 0.19 percent on average.

On the other hand, the collateral wise loan portfolio analysis found that CCBL has invested maximum loan in collateral of properties on average during the study period i.e. 92.56 percent and the minimum investment against security of bills i.e. 0.19 percent. Further, CBL has invested maximum loan in collateral of properties on average during the study period i.e. 91.21 percent and the minimum investment in Government Securities i.e. 0.01 percent. As per sample testing on security wise loan portfolio management of loan against gold and silver, CBL leads the way with 0.65 percent followed by CCBL with 0.41 percent exposures. Similarly, Loan against fixed deposit is also the most secured loan. CCBL has higher loan against fixed deposit with 0.71 percent and CBL having 0.31 percent loan on total loans.

As per the guideline of NRB regarding sector wise loan, commercial banks should invest at least 10 percent of total loan and advance in agriculture and forest related sector and fishery related sector but the both selected banks have failed to invest required loan in agriculture and forest related sector and in fishery related sector, which is not followed as per the guideline and it is chargeable for the bank.

## **5.2 Conclusions**

The data plotted in Microsoft excel for the calculation of mean, standard deviation and coefficient of variation, and those data are compared through bar diagrams. It reveals that both selected banks have increasing trend in loan and advance during the study period. The average sector wise loan in manufacturing (producing) related sector of the CCBL is highest among other sector during the study period and minimum loan invested in fishery related sector, whereas CBL invested maximum loan in wholesale and retailer related sector and minimum loan invested in local government related sector. Similarly, the average product wise loan portfolio analysis found that the maximum loan invested by

CBL is in demand and other working capital loan during the study and minimum loan invested in bills purchased loan. During the study, as per the CCBL, maximum loan is invested in term loan and minimum loan invested in bills purchased loan. On the other hand, the collateral wise loan portfolio analysis found that CCBL and CBL has invested maximum loan in collateral of properties, whereas the minimum investment by CCBL is against security of bills and by CBL is in Government Securities.

This study found that, selected commercial banks have managed their loan portfolio as per the standard parameter of NRB directives 2073. All banks have maintained limit of Real estate loan  $\leq 25$  percent of total loan, Deprived sector loan  $\geq 4.5$  percent of total loan, sector wise loan portfolio  $\leq 40$  percent of total loan & managed credit risk. However, above 90 percent of both bank's lending is on collateral basis which indicates that, banks are conservative in lending. Nepalese banks should increase their lending on priority sector and other various type of project based lending to contribute in development of country.

As per NRB guideline banks should invest at least 5 percent of total loan in electricity, gas and water related sector hence both banks have not meet the NRB guideline in maintaining the loan flow in electricity, gas and water related lending. On the other hand, loan in hotel and service related sector should be at least 5 percent of total loan and advance, unfortunately both banks have failed to meet the NRB requirement.

Every bank has its own procedure and systems for the effective loan portfolio management. Effective loan portfolio management begins with oversight of the risk in individual loans. Prudent risk selection is vital to maintaining favorable loan quality. Therefore, the historical emphasis on controlling the quality of loan approvals and managing the performance of loans continues to be essential. But better technology and information systems have opened the door to better management methods. Further, the loan portfolio of a commercial bank is mostly influenced by the credit risk to be taken by the bank, profitability to be achieved and liquidity position of the bank, NRB unified directives issued regularly to supervise the banking system, monetary policy and different government programs and subsidies to be provided to the related groups and party. Hence, considering the market situation, availability of the fund and policies formulated by the

internal management team, and other external regulating bodies has played the major role in loan portfolio management of commercial banks.

### 5.3 Implications

According to the analysis, the following points are highlighted recommended and to put forward for the implications for further improvements of sample banks.

- Since sample banks have increasing trend in loan and advance which may supports the future earning of the banks because loan and advance is the major earning source of the banks, so they should keep increasing loan and advances.
- The higher deviation may cause inconsistency in the loan and advance of the banks, so bank should maintain uniform loan and advance management practice in future.
- The deviation in the loan of product wise (Bills Purchased and Margin Nature Loan) of the both bank is higher and having one of the major investment by both banks in Demand & Other Working Capital Loan and Term Loan it seems to have low deviation as compared to others, hence it suggested to carry out the investment trend by minimizing the credit risk and invest carefully in Bills Purchased and Margin Nature Loan.
- Since there is less deviation in the data of loan flow in the collateral of properties, bank flows more loan in this sector so collateral wise loan of the bank should be managed in portfolio basis in future for risk minimization.
- Selected banks should provide more training program in business strategy and organizational management to the employees in the lending department. Training is the most important for the employees to make them efficient and professional in credit appraisal, monitoring and proper risk management and portfolio segregation for loan flow.
- Industrial, Trading and Service oriented enterprises should be provided more loans by the banks in order to promote trade and industry.
- The government has to encourage the coming up new entrepreneurs, encourage the small-scale industries, give priority to export business, encourage foreign investors. And the commercial banks in turn should extend support from their side in every possible way.

## REFERENCES

- Afroz, N. N. (2013). Credit Portfolio Management of Bangladesh Krishi Bank. *Global Journal of Management and Business Research*, 13 (12).
- Baniya (2014), A Study on Credit Practices of Commercial Banks (With Reference to Nabil Bank Limited (NBL), Standard Chartered Bank Nepal Limited (SCBNL) and Himalayan Bank Limited). *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management T.U.*
- Bhandari, S. (2014). A Study on the Financial Performance of Himalayan Bank Ltd. In the Framework of CAMEL. *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management T.U.*
- Bhatta, P. (2004). Analysis of Corporate Finance. *Kathmandu: Kala publication.*
- Bista, B. (2010). Loan Management of Commercial Banks: A Comparative Study of NABIL and SCBNL. *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management T.U.*
- Bonti, G., Kalkbrener M., Lotz, C., Stahl, G., & Bonti. G. (2005). Credit risk concentration under stress. From: <http://citeseerx.ist.psu.edu/viewdoc/>
- Civil Bank Limited. (2022). Retrieved from <http://www.civilbank.com.np/about-us/about-civil-bank/introduction>
- Century Commercial Bank Limited. (2022). Retrieved from <https://www.centurybank.com.np>
- Corsby, Nick F, & Meilanie O. (2003), "Bank Lending Valuation on Commercial Property, Does European Mortgage Lending Value Add Anything to the Process?" *Journal of Property Investment and Finance*, 18(1), 66-83
- Crosse, H. K. (1963). *Management Policies for Commercial Banks*. New Jersey: Prentice Hall Inc.
- Dahal, B., & Dahal, S. (2012). *A Hand Book of Banking*. Kathmandu: Asmita Books and Stationery.
- Daniele, P., & Vito, L. (2018). A Dynamic Approach Merging Network Theory and Credit Risk Techniques to Assess Systemic Risk in Financial Networks. *Scientific Report*, 8(2),95-110. Retrieved from <https://www.nature.com/articles>
- Dhamala, B. (2018). A Study on Lending Practices of Finance Companies of Nepal. *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, TU.*

- Dhunghana, P. (2002). A Comparative Study on Investment Policy of Nepal Bangladesh Bank and Other Joint Venture Bank. *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, TU.*
- Eva, C., & Jaroslav, B. (2012). Assessment of Credit Risk Approaches in Relation with Competitiveness Increase of the Banking Sector. *International Journal of Research in Commerce, Economics and Management, 1(1),1-15.*
- Godwin N. & Osarumwense A. (2009). Approximate Maximum Likelihood Commercial Bank Loan Management Model. *Journal of Social Sciences, Volume 5 No. 4, 271-278*
- K.C., S. (1999). Banking Theory and Practice. *New Delhi: Vikash Publishing House Pvt. Ltd.*
- Khanal, M. (2005). Impact of Non-Performing Loan on the Performance of Nepalese Commercial Bank with Special References to NABIL, NIBL, NSBIL, EBL and BOK. *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, TU.*
- Koirala, R. (2016). A Study on Credit Management in Nepalese Commercial Banks. *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, TU.*
- Maharjan, B. (2005). Loan Management of Commercial Banks: A Selective Joint Venture Banks: BOK, NSBIL, NABIL, and NIBL. *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, TU.*
- Malla, B. K. (2017, December). Credit Portfolio Management in Nepalese Commercial Banks. *The Journal of Nepalese Business Studies, X (1), 101-109*
- Nario, L., Pfister, T., Poppensieker, T., & Stegemann, U. (2016, July). The Evolving Role of Credit Portfolio Management. Retrieved from: <http://www.mckinsey.com/business-functions/risk/our-insights/the-evolving-role-of-credit-portfolio-management>.
- Nepal Rastra Bank. (2022). Retrieved from <https://nrb.org.np/bfr/directives>
- Nwankwo, G. (1991). Risk Analysis and Management, Principles and Practice. *Lagos: Malt House Press Ltd.*
- Panta, P. (2018). Fundamentals of Business Research Methods. *Kathmandu: Buddha Publication.*
- Sharma, P. (2017). Comparative Study of Credit Management of Nepalese Commercial Banks (With Reference of Nabil Bank Ltd., Nepal Credit and Commercial Bank

- Ltd. and Nepal Investment Bank Ltd.). *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, TU.*
- Shrestha, M. (2005). Credit management with special references to NSBIL. *Kathmandu: An Unpublished Master's Degree Thesis, Submitted to Faculty of Management, TU.*
- Shrestha, R. (1993). Loan Management in Nepal. *Kathmandu: Pairavi Prakashan.*
- Tabak, M. Fazio M. & Casueiro O. (2010). The Effects of Loan Portfolio Concentration on Brazilian Banks' Return & Risk. *The Banco Central doBrasil Working Paper Series, 211.*
- Universal Class. (2019). Retrieved from <https://www.universalclass.com/articles>
- Yadav, R., Dhakal, B., Tamang, G., Shrestha, H., & Panta, K. (2010). Statistical Methods. *Kathmandu: Asmita Books Publishers and Distributors (p) Ltd.*
- <https://www.nrb.org.np/category/monthly-statistics>
- [https://link.springer.com/chapter/10.1007/978-3-030-50326-0\\_3](https://link.springer.com/chapter/10.1007/978-3-030-50326-0_3)
- <http://107.170.122.150:8080/xmlui/bitstream/handle/123456789/214/Krishna%207000.pdf?sequence=1&isAllowed=y>
- <http://107.170.122.150:8080/xmlui/bitstream/handle/123456789/446/6076pdf.pdf?sequence=1&isAllowed=y>
- <https://www.slideshare.net/pawankawan/investment-portfolio-analysis-of-commercial-banks-of-nepal>
- <https://elibrary.tucl.edu.np/bitstream/123456789/3605/1/thesis.pdf>

## APPENDICES

### APPENDIX-I

#### SECTOR WISE LOAN OF CIVIL BANK LIMITED

(NPR in Million)

<b>Year</b>	<b>2020/21</b>	<b>2019/20</b>	<b>2018/19</b>	<b>2017/18</b>	<b>2016/17</b>	<b>2015/16</b>	<b>2014/15</b>
Agricultural and Forest Related	5,419.83	2,611.35	2,280.00	1,734.80	1,680.02	1,244.26	1,000.34
Fishery Related	66.83	16.12	9.31	4.72	7.82	1.65	6.60
Mining Related	97.17	12.54	21.48	33.89	45.08	51.27	60.31
Manufacturing (Producing) Related	13,200.47	11,791.08	10,095.74	9,500.58	5,636.03	5,394.11	5,916.10
Construction	4,488.23	2,779.92	2,699.35	2,942.40	2,120.08	1,763.96	1,717.89
Electricity, Gas and Water	5,073.32	4,080.69	3,055.24	1,954.44	1,129.21	638.61	501.29
Metal Products, Mach. & Electrical Equipment.	1,037.53	509.53	446.50	367.76	95.33	89.48	102.41
Transportation, Com. and Public Utilities	2,749.15	1,641.40	960.15	1,441.77	1,364.66	309.54	441.47
Wholesaler & Retailer	17,679.99	10,257.53	9,207.54	9,153.28	8,112.00	7,890.47	5,501.77
Finance, Insurance and Real Estate	10,602.42	6,904.96	5,441.17	5,142.51	3,583.04	3,128.41	2,667.33
Hotel or Restaurant	3,599.66	1,930.04	1,824.07	1,357.90	1,313.30	1,252.85	1,113.61
Other Services	2,894.17	1,900.59	1,886.01	1,892.51	2,062.34	2,042.19	2,174.95
Consumption Loans	6,179.31	4,007.47	3,470.76	2,679.27	2,073.16	1,715.53	1,189.37
Local Government	81.00			3.34			
Others	9,868.70	5,394.62	3,375.76	2,466.35	1,659.13	1,006.73	772.13
<b>Total Sector Wise Loan</b>	<b>83,037.78</b>	<b>53,837.84</b>	<b>44,773.08</b>	<b>40,675.52</b>	<b>30,881.20</b>	<b>26,529.06</b>	<b>23,165.57</b>

Note: From Monthly Statistics Report of Nepal Ratra Bank

**APPENDIX-II****PRODUCT WISE LOAN OF CIVIL BANK LIMITED**

(NPR in Million)

<b>Year</b>	<b>2020/21</b>	<b>2019/20</b>	<b>2018/19</b>	<b>2017/18</b>	<b>2016/17</b>	<b>2015/16</b>	<b>2014/15</b>
Term Loan	21,242.93	12,978.34	10,170.99	8,358.50	6,314.18	5,393.25	4,575.39
Overdraft	15,009.74	8,312.20	6,950.19	7,087.59	6,080.36	5,700.96	4,787.89
Trust Receipt Loan / Import Loan	5,543.70	5,787.94	3,343.32	3,958.65	1,287.67	1,913.08	827.30
Demand & Other Working Capital Loan	17,667.26	10,137.15	10,408.55	9,268.01	8,188.89	8,090.55	7,607.32
Res. Per. H. Loan (Up to Rs. 10 mil.)	2,540.48	1,806.20	1,905.09	1,830.42	1,348.12	884.06	1,046.77
Real Estate Loan	4,161.60	4,173.45	2,887.08	1,436.58	1,358.82	814.34	777.21
Margin Nature Loan	3,830.34	2,026.52	1,545.50	781.70	238.30	37.91	12.44
Hire Purchase Loan	2,717.86	2,270.71	2,418.31	2,691.45	2,635.72	1,852.44	1,541.73
Deprived Sector Loan	6,067.69	2,799.83	2,579.91	2,528.71	1,856.12	1,215.78	1,013.14
Bills Purchased	13.90			26.82	45.25	69.38	86.22
Other Product	4,242.26	3,545.50	2,564.14	2,703.75	1,527.77	557.31	890.16
<b>Total Product Wise Loan</b>	<b>83,037.77</b>	<b>53,837.86</b>	<b>44,773.09</b>	<b>40,672.18</b>	<b>30,881.20</b>	<b>26,529.05</b>	<b>23,165.58</b>

Note: From Monthly Statistics Report of Nepal Ratra Bank

### APPENDIX-III

#### COLLATERAL WISE LOAN OF CIVIL BANK LIMITED

(NPR in Million)

<b>Year</b>	<b>2020/21</b>	<b>2019/20</b>	<b>2018/19</b>	<b>2017/18</b>	<b>2016/17</b>	<b>2015/16</b>	<b>2014/15</b>
Gold and Silver	<b>111.83</b>	<b>210.75</b>	<b>220.68</b>	<b>259.43</b>	<b>239.07</b>	<b>265.74</b>	<b>253.97</b>
Government Securities	<b>81.00</b>						
Non-Governmental Securities	<b>3,837.05</b>	<b>2,075.08</b>	<b>1,490.65</b>	<b>781.70</b>	<b>373.76</b>	<b>37.91</b>	<b>14.44</b>
Fixed Deposit Receipts	<b>516.45</b>	<b>148.34</b>	<b>165.68</b>	<b>144.94</b>	<b>144.54</b>	<b>21.63</b>	<b>5.56</b>
Own	516.45	148.34	165.68	144.94	144.54	21.63	5.56
Other Licenses Institutions							
Collateral of Properties	<b>74,274.06</b>	<b>49,277.08</b>	<b>40,763.92</b>	<b>37,508.61</b>	<b>28,337.33</b>	<b>24,094.84</b>	<b>21,226.93</b>
Fixed Assets	74,021.91	49,006.64	40,476.04	37,058.68	27,512.85	22,871.92	18,654.15
Current Assets	252.15	270.44	287.88	449.92	824.48	1,222.92	2,572.79
Against security of Bill	-	-	-	<b>26.82</b>	<b>535.50</b>	<b>132.90</b>	<b>86.22</b>
Domestic Bills	-	-	-	16.14	15.13	69.38	86.22
Foreign Bills	-	-	-	10.69	520.38	63.52	
Against Guarantee	<b>3,868.85</b>	<b>1,871.61</b>	<b>1,823.65</b>	<b>1,682.89</b>	<b>1,047.72</b>	<b>1,615.73</b>	<b>1,343.31</b>
Government Guarantee	16.54	16.47	16.45	16.73	1.49		
Institutional Guarantee	3,741.21	1,780.92	1,703.46	1,423.06	846.29	969.57	892.23
Personal Guarantee	61.71	3.56	0.25	0.19		1.60	7.09
Collective Guarantee	44.29	61.63	89.94	197.97	117.25	644.56	444.00
Int. Rtd. Foreign Bank's Guarantee							
Other Guarantee	5.09	9.03	13.56	44.94	82.70		
Credit Card							
Others	348.53	254.99	308.50	267.79	203.28	360.31	235.14
<b>Total Collateral Wise Loan</b>	<b>83,037.77</b>	<b>53,837.86</b>	<b>44,773.09</b>	<b>40,672.18</b>	<b>30,881.20</b>	<b>26,529.05</b>	<b>23,165.58</b>

Note: From Monthly Statistics Report of Nepal Ratra Bank

**APPENDIX-IV**

**SECTOR WISE LOAN OF CENTURY COMMERCIAL BANK LIMITED**

(NPR in Million)

<b>Year</b>	<b>2020/21</b>	<b>2019/20</b>	<b>2018/19</b>	<b>2017/18</b>	<b>2016/17</b>	<b>2015/16</b>	<b>2014/15</b>
Agricultural and Forest Related	3,638.97	2,415.52	2,204.06	1,852.46	1,479.72	747.42	510.59
Fishery Related	185.05	33.91	32.61	31.36	18.88	1.16	0.44
Mining Related	233.39	168.00	452.75	476.26	595.67	471.05	455.61
Manufacturing (Producing) Related	14,267.86	12,788.68	13,982.65	11,872.91	7,602.84	6,513.25	5,440.03
Construction	8,850.74	6,261.03	5,888.84	5,469.68	4,083.72	2,847.80	2,057.95
Electricity, Gas and Water	6,647.86	4,913.84	2,898.90	1,829.42	1,098.98	437.56	337.01
Metal Products, Mach. & Electrical Equipment.	1,469.22	1,173.61	1,094.42	947.06	405.99	317.85	214.06
Transportation, Com. and Public Utilities	2,302.27	1,117.29	645.00	583.00	451.61	144.70	98.11
Wholesaler & Retailer	13,713.13	10,176.04	10,454.09	11,014.38	7,500.31	5,208.32	4,707.01
Finance, Insurance and Real Estate	8,631.25	7,069.74	7,260.68	6,670.87	4,953.23	3,132.71	2,303.22
Hotel or Restaurant	3,719.57	2,069.02	2,376.01	2,578.01	1,586.14	1,050.13	1,010.67
Other Services	4,003.17	2,424.47	2,017.38	1,719.95	1,512.76	1,301.64	971.95
Consumption Loans	4,575.50	2,755.45	3,838.37	4,383.41	4,232.70	1,592.99	1,408.58
Local Government							
Others	9,150.60	7,608.60	6,889.10	5,559.73	3,985.25	1,317.53	836.57
<b>Total Sector Wise Loan</b>	<b>81,388.58</b>	<b>60,975.20</b>	<b>60,034.86</b>	<b>54,988.50</b>	<b>39,507.80</b>	<b>25,084.11</b>	<b>20,351.80</b>

Note: From Monthly Statistics Report of Nepal Ratra Bank

**APPENDIX-V**

**PRODUCT WISE LOAN OF CENTURY COMMERCIAL BANK LIMITED**

(NPR in Million)

<b>Year</b>	<b>2020/21</b>	<b>2019/20</b>	<b>2018/19</b>	<b>2017/18</b>	<b>2016/17</b>	<b>2015/16</b>	<b>2014/15</b>
Term Loan	23,094.30	20,463.74	18,153.05	14,475.71	9,412.62	6,313.42	4,795.87
Overdraft	14,742.92	11,301.21	12,627.61	12,494.05	8,366.97	5,859.67	5,193.19
Trust Receipt Loan / Import Loan	1,083.38	1,269.92	1,351.60	2,338.23	1,023.06	1,157.02	495.41
Demand & Other Working Capital Loan	18,438.16	12,177.50	11,291.66	9,837.91	6,991.56	4,819.11	4,704.63
Res. Per. H. Loan (Up to Rs. 10 mil.)	4,484.20	3,592.54	3,663.79	3,586.64	3,426.84	2,285.16	1,577.14
Real Estate Loan	5,851.50	3,254.83	3,850.69	3,932.20	3,063.61	1,641.17	1,050.00
Margin Nature Loan	2,778.73	649.85	952.67	1,267.87	1,220.46	342.76	85.41
Hire Purchase Loan	2,429.06	2,181.22	2,540.28	2,645.76	2,529.21	843.60	741.43
Deprived Sector Loan	3,858.23	3,271.68	3,003.54	2,516.04	2,170.00	1,097.56	915.41
Bills Purchased	26.24	3.80	6.14	3.80	154.18	20.65	156.75
Other Product	4,601.85	2,808.91	2,593.82	1,890.31	1,149.28	703.97	636.55
<b>Total Product Wise Loan</b>	<b>81,388.57</b>	<b>60,975.20</b>	<b>60,034.85</b>	<b>54,988.52</b>	<b>39,507.79</b>	<b>25,084.09</b>	<b>20,351.79</b>

Note: From Monthly Statistics Report of Nepal Ratra Bank

**APPENDIX-VI**

**COLLATERAL WISE LOAN OF CENTURY COMMERCIAL BANK LIMITED**

(NPR in Million)

<b>Year</b>	<b>2020/21</b>	<b>2019/20</b>	<b>2018/19</b>	<b>2017/18</b>	<b>2016/17</b>	<b>2015/16</b>	<b>2014/15</b>
Gold and Silver	<b>39.81</b>	<b>43.43</b>	<b>58.19</b>	<b>72.91</b>	<b>114.16</b>	<b>147.18</b>	<b>338.69</b>
Government Securities			<b>1.64</b>	<b>2.30</b>	<b>0.45</b>	<b>1.43</b>	
Non-Governmental Securities	<b>2,778.73</b>	<b>649.85</b>	<b>952.67</b>	<b>1,361.33</b>	<b>1,220.46</b>	<b>342.76</b>	<b>85.41</b>
Fixed Deposit Receipts	<b>231.49</b>	<b>149.89</b>	<b>381.67</b>	<b>388.38</b>	<b>364.30</b>	<b>248.59</b>	<b>245.67</b>
Own	231.49	149.89	381.67	388.38	364.30	248.59	245.67
Other Licenses Institutions							
Collateral of Properties	<b>75,495.99</b>	<b>57,291.92</b>	<b>56,159.92</b>	<b>51,255.70</b>	<b>36,035.80</b>	<b>23,136.85</b>	<b>18,525.94</b>
Fixed Assets	59,276.86	44,120.44	41,598.51	36,972.83	25,063.19	12,589.31	9,050.80
Current Assets	16,219.14	13,171.48	14,561.41	14,282.87	10,972.61	10,547.54	9,475.14
Against security of Bill	<b>26.57</b>	<b>3.80</b>	<b>18.87</b>	<b>18.06</b>	<b>158.65</b>	<b>20.65</b>	<b>156.75</b>
Domestic Bills	26.57	3.80	18.87	18.06	7.00		41.16
Foreign Bills	-	-	-		151.65	20.65	115.59
Against Guarantee	<b>2,582.39</b>	<b>2,547.67</b>	<b>2,292.54</b>	<b>1,831.57</b>	<b>1,590.61</b>	<b>1,102.55</b>	<b>913.26</b>
Government Guarantee							
Institutional Guarantee	2,411.94	2,527.24	2,271.46	1,812.60	1,583.36	1,096.45	913.26
Personal Guarantee	170.42	20.40	21.05	17.23	7.25	6.10	
Collective Guarantee	0.03	0.03	0.03	1.75			
Int. Rtd. Foreign Bank's Guarantee							
Other Guarantee							
Credit Card	42.37	41.39	45.92	13.42	4.32		
Others	191.22	247.25	123.46	44.86	19.03	84.10	86.07
<b>Total Collateral Wise Loan</b>	<b>81,388.56</b>	<b>60,975.20</b>	<b>60,034.86</b>	<b>54,988.51</b>	<b>39,507.78</b>	<b>25,084.10</b>	<b>20,351.80</b>

Note: From Monthly Statistics Report of Nepal Rastra Bank