## A STUDY ON LOAN AND ADVANCES OF COMMERCIAL BANKS

(With Special Reference to Nepal Investment Bank Ltd. and Nabil Bank Ltd.)

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# RECOMMENDATION 

This is to certify that the Thesis

Submitted by:<br>PRAMOD WAGLE

Entitled:

# A STUDY ON LOAN AND ADVANCES OF COMMERCIAL BANKS 

(With Special Reference to Nepal Investment Bank Ltd. and Nabil Bank Ltd.)
has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

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## VIVA-VOCE SHEET

We have conducted the viva -voce of the thesis presented

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## DECLARATION

I hereby declare that the work reported in this thesis entitled "A STUDY ON LOAN AND ADVANCES OF COMMERCIAL BANKS (With Special Reference to Nepal Investment Bank Ltd. and Nabil Bank Ltd.)" submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Master Degree in Business Studies (M.B.S.) under the supervision of Prof. Snehalata Kafle and Govinda Bahadur Thapa of Shanker Dev Campus.

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Due to various reasons these days the loan and advance of commercial banks are turning to non-performing day after day. In this context this study entitled "Study on Loan and Advances of Commercial Bank. (With Special Reference to Nepal Investment Bank and Nabil Bank)" is mainly done to analyze the present situation of loan and advances, nonperforming loan and other various aspects of loan and advances of commercial banks.

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## ABBREVIATIONS

| CV | $=$ | Coefficient of Variation |
| :--- | :--- | :--- |
| Foreign ABC | $=$ | Foreign Advance Bill for Collection |
| GDP | $=$ | Gross Domestic Product |
| i.e. | $=$ | That is |
| LC | $=$ | Letter of Credit |
| NABIL | $=$ | Nabil Bank Limited |
| NIBL | $=$ | Nepal Investment Bank Limited |
| NPL | $=$ | Non-performing Loan |
| NRB | $=$ | Nepal Rastra Bank Limited |
| PE | $=$ | Probable Error |
| SD |  | World Trade Organization |
| WTO |  |  |

## TABLE OF CONTENTS

Recommendation
Viva-Voce Sheet
Declaration
Acknowledgment
Table of Contents
List of Tables
List of Figures
Abbreviations
Page No.
CHAPTER - I INTRODUCTION
1.1 General Background of the Study ..... 1
1.2 Brief Profile of the Sample Banks ..... 3
1.3 Statement of the Problem ..... 4
1.4 Objectives of the Study ..... 6
1.5 Significance of the Study ..... 7
1.6 Limitation of the Study ..... 7
1.7 Organization of the Study ..... 7
CHAPTER - II REVIEW OF LITERATURE
2.1 Conceptual Review ..... 9
2.1.1 Introduction to Commercial Banks ..... 10
2.1.2 Function of Commercial Banks ..... 12
2.1.3 Types of Lending (Credit) ..... 14
2.1.4 Objectives of the Sound Credit Policy ..... 16
2.1.5 Principles of Good Lending ..... 16
2.1.6 Lending Criteria ..... 18
2.1.7 Non-performing Loan ..... 20
2.1.8 Loan Loss Provision ..... 20
2.1.9 Interest Suspense ..... 21
2.1.10 Recovery ..... 21
2.1.11 Loan Purchase and Repurchase ..... 22
2.2 Review of Relevant Act ..... 22
2.3 Review of Previous Studies ..... 30
2.3.1 Review of Articles ..... 30
2.3.2 Review of Unpublished Thesis ..... 36
2.4 Research Gap ..... 41
CHAPTER - III RESEARCH METHODOLOGY
3.1 Research Design ..... 43
3.2 Population and Sample ..... 43
3.3 Nature and Sources of Data ..... 44
3.4 Analysis of Data ..... 44
3.4.1 Financial Tools ..... 45
3.4.2 Statistical Tools ..... 47
CHAPTER - IV DATA PRESENTATIONS AND ANALYSIS
4.1 Analysis of Loan and Advance ..... 51
4.2 Analysis of Non-Performing Loan ..... 52
4.3 Analysis of Loan Loss Provision
55
4.4 Analysis of Interest Suspense ..... 58
4.5 Analysis of Financial Indicators ..... 59
4.5.1 Loans and Advances to Total Assets Ratio ..... 60
4.5.2 Loans and Advances to Total Deposit Ratio ..... 61
4.5.3 Loans and Advances to Loan and Advances and Total Investment Ratio ..... 63
4.6 Assessing the Lending Capacity ..... 64
4.6.1 Calculation of Single Borrower's Obligor Limit ..... 65
4.7 Analyzing Contribution of Loan and Advances in Total Income ..... 67
4.7.1 Income from Loan and Advances to Total Income Ratio ..... 67
4.8 Assessing the Situation of Non- Performing Loan ..... 68
4.8.1 Non-Performing Loan to Loan and Advances Ratio ..... 69
4.8.2 Loan Loss Provision to Loan and Advances Ratio ..... 72
4.8.3 Loan Loss Provision to Total Income Ratio ..... 75
4.8.4 Interest Suspense to Total Interest from Loan, Advances and Bill Purchase Ratio ..... 76
4.8.5 Interest Suspense to Total Interest Income Ratio ..... 78
4.9 Statistical Analysis ..... 79
4.9.1 Correlation Coefficient between Loan and Advances and Total Deposit ..... 80
4.9.2 Correlation between Loan and Advances and Non-performing Loan ..... 80
4.9.3 Correlation between Loan and Advances and Loan Loss Provision ..... 81
4.9.4 Correlation between Non-performing Loan and Loan Loss Provision ..... 82
4.9.5 Correlation between Non-performing Loan and Interest Suspense ..... 83
4.9.6 Correlation between Income from Loan and Advances and Net Profit ..... 84
4.10 Time Series Analysis ..... 85
4.10.1 Trend Analysis of Loan and Advances ..... 86
4.10.2 Trend Analysis of Non-performing Loan ..... 87
4.10.3 Trend Analysis of Interest Suspense ..... 89
4.10.4 Trend analysis of Loan Loss Provision ..... 90
4.11 Analysis of Primary Data ..... 92
4.12 Major Findings of the Study ..... 94
CHAPTER - V SUMMARY, CONCLUSION AND RECOMMENDATIONS
5.1 Summary ..... 101
5.2 Conclusion ..... 102
5.3 Recommendations ..... 103

## Bibliography

## Appendices

## LIST OF TABLES

Table No.
Title
4.1 Total Loan and Advances ..... 51
4.2 Non- Performing Loan ..... 53
4.3 Classification of Non-Performing Loan ..... 54
4.4 Loan Loss Provision ..... 55
4.5 Classification of Loan Loss Provision ..... 57
4.6 Interest Suspense ..... 58
4.7 Loans and Advances to Total Assets Ratio ..... 60
4.8 Loans and Advances to Total Deposit Ratio ..... 62
4.9 Loans and Advances to Loan and Advances and Investment Ratio ..... 63
4.10 Calculation of Single Borrower Obligor Limit ..... 66
4.11 Income from Loan and Advances to Total Income Ratio ..... 67
4.12 Non- performing Loan to Loan and Advances Ratio ..... 69
4.13 Composition of Non-Performing Loan in Proportion ..... 71
4.14 Loan Loss Provision to Loan and Advances Ratio ..... 72
4.15 Composition of Loan Loss Provision ..... 74
4.16 Loan Loss Provision to Total Income Ratio ..... 75
4.17 Interest Suspense to Total Interest Income from Loan, Advances and Bill Purchase Ratio ..... 77
4.18 Interest Suspense to Total Interest Income Ratio ..... 78
4.19 Correlation between Loan and Advances and Deposit ..... 80
4.20 Correlation between Loan and Advances and Non-Performing Loan ..... 81
4.21 Correlation between Loan and Advances and Loan Loss Provision ..... 82
4.22 Correlation between Non-performing Loan and Loan Loss Provision ..... 83
4.23 Correlation between Non-performing Loan and Interest Suspense ..... 84
4.24 Correlation between Income from Loan and Net profit ..... 85
4.25 Trend of Loan and Advances ..... 86
4.26 Trend of Non-Performing Loan ..... 88
4.27 Trend of Interest Suspense 89
4.28 Trend of Loan Loss Provision 91

## LIST OF FIGURES

Figure No. Title Page No.
4.1 Total Loan and Advances ..... 52
4.2 Non- Performing Loan ..... 53
4.3 Loan Loss Provision ..... 56
4.4 Interest Suspense ..... 59
4.5 Loans and Advances to Total Assets Ratio ..... 60
4.6 Loans and Advances to Total Deposit Ratio ..... 62
4.7 Loans and Advances to Loan and Advances and Investment Ratio ..... 64
4.8 Single Borrower Obligor Limit ..... 66
4.9 Income from Loan and Advances to Total Income Ratio ..... 68
4.10 Non- performing Loan to Loan and Advances Ratio ..... 70
4.11 Loan Loss Provision to Loan and Advances Ratio ..... 73
4.12 Loan Loss Provision to Total Income Ratio ..... 76
4.13 Interest Suspense to Total Interest Income from Loan, Advances and Bill Purchase Ratio ..... 77
4.14 Interest Suspense to Total Interest Income Ratio ..... 79
4.15 Trend of Loan and Advances ..... 87
4.16 Trend of Non-performing Loan ..... 88
4.17 Trend of Interest Suspense ..... 90
4.18 Trend of Loan Loss Provision ..... 91

## CHAPTER - I

## INTRODUCTION

### 1.1 General Background of the Study

Bank is considered as the backbone in the development of the national economy now a day. It is a financial institution, which acts as a transaction of money by accepting various types of deposit, disbursing loans and rendering other financial services. So, among the various function to provide loan to the investors is the major function. Through the loan, there will be increase in the environment of the investment and the bank has the major role in creating such an environment.

A financial institution is the life blood of economic development of the country. Financial institution acts as catalyst in the process of economic growth of the country. A bank is a financial institution, which can play a significant role in the enlistment of the economic situation of the developing country like Nepal. Bank plays the vital role to encourage thrift and discourage hoarding by mobilizing the resources and removing the habit of hoarding. They pursue economic growth rapidly, developing the banking habit among the people by collecting the small-scattered resources in one bulk, using them in the further productive purpose, and rendering other valuable service to the country. Thus, this gives the individual an opportunity to borrow funds against future income, which may improve the economic well being of the borrower. Bank deals with the offer of collected deposits and provides the loan for commercial purpose.

The sources of finance are most essential element for the establishment and operation of financial institute. Profit oriented institutions usually obtain these sources through ownership capital, public capital through issue of shares and debenture, borrowing through banking institution as credit or loan. Now a days, the essential source of the organization for financial supporting is the credit, overdrafts and others financial facilities provided by banking institution.

A sound banking system is the key factor to achieve success in the present global market. A well built banking system lead the country to top of economic prosperity. In present context of Nepal being the member in the WTO the role of banking system must be as backbone which makes the economy erect in the competitive global market. The banking system of Nepal has to prepare for more competition with foreign banking system which will be started after few years. A banking system is said well if the deposit collection and its mobilization have flow, if the investment is in productive sector, if it has contributed in GDP, if it has maximized the overall economy.

Commercial Banks are the heart of financial system. They hold the deposits of many person, government establishment and business units. They make funds available through their lending and investing activities to borrowing: individuals, business firms and government establishment. In doing so, they assist both the flow of goods and services from the producers to customers and the financial activities of the government. They provide a large portion of medium of exchange and they are the media through which monetary policy is affected. These facts show that commercial banking system of nation is important to the functioning of the economy.

Commercial banks main functions are to create credit from its borrowed fund. Loan and Advances dominated the asset side of the balance sheet of any bank and also constitute the primary sources of income to the banks. Loans and advances may take different forms and are allowed against various types of securities. Loans, overdraft, discounting of bills of exchange etc. are some of the forms of bank lending. Granting loans and advances always carries a certain degree of risk. (Tamrakar; 2007: 17)

The study focuses on evaluating the deposits utilization of the banks in terms of loans and advances and investments and its contribution in the profitability of the bank. It is also focuses on the non-performing assets position of the bank. The term loan and advances referred to the credit. Loan and advances is the amount of money lent by creditor (Bank) to the borrower (Customer) either based on security or without security.

This research has focused mainly to highlight and examine the loan and advance management of the selected banks, ignoring other aspect of bank transaction. To highlight the loan and advances management of the bank, this study is to analyze the loan and advances management through the use of appropriate financial tools and statistical tools.

### 1.2 Brief Profile of the Sample Banks

## Nepal Investment Bank Ltd.

Nepal Investment Bank Ltd. (NIBL), previously Nepal Indosuez Bank Ltd., was established in 1986 A.D. as a joint venture between Nepalese and French partners. The French partner (holding $50 \%$ of the capital of NIBL) was Credit Agricole Indosuez, a subsidiary of one the largest banking group in the world.

With the decision of Credit Agricole Indosuez to divest, a group of companies comprising of bankers, professionals, industrialists and businessmen, has acquired on April 2002 the $50 \%$ shareholding of Credit Agricole Indosuez in Nepal Indosuez Bank Ltd.

The name of the bank has been changed to Nepal Investment Bank Ltd. upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's office with the following shareholding structure.

- A group of companies holding $50 \%$ of the capital.
- Rashtriya Banijya Bank holding $15 \%$ of the Capital.
- Rashtriya Beema Sansthan holding $15 \%$ of the Capital.
- The remaining $20 \%$ being held by the General Public (which means that NIBL is a Company listed on the Nepal Stock Exchange).


## Nabil Bank Ltd.

Nabil Bank Limited, the first foreign joint venture bank of Nepal, started operations in July 1984. Nabil was incorporated with the objective of extending international standard modern banking services to various sectors of the society. Pursuing its objective, Nabil provides a full range of commercial banking services through its 19 points of
representation across the kingdom and over 170 reputed correspondent banks across the globe.

Nabil, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as it started an era of modern banking with customer satisfaction measured as a focal objective while doing business.

Operations of the bank including day-to-day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards, state-of-art, worldrenowned software from Infosys Technologies System, Banglore, India, Internet banking system and Tele banking system.

### 1.3 Statement of the Problem

Commercial banks play the vital role for the economic development of nation. Bank facilitate for the growth of trade and industry. The main objective of any commercial bank is collection of fund and its proper utilization in productive areas. Now a day, the banking institutions are facing the problems from the external factors, such as political, legal, economic, social, infrastructure, quality of work life etc.

However, development of Commercial Banks in quality has not been satisfactory. The banks are not interested in granting loan to the primary and deprived sector of economy. Banking is not being easy accessibility of public in remote and village area but operate mainly in town and capital of the country.

The private commercial banks are performing better than other government based bank within short span of time. They have been facing many problems like; competitive environment, fluctuating and low interest rate on deposits, poor deposit mobilization etc. These problems have affected negatively on the return of funds, total assets, total deposit and share holder's wealth position. The financial sectors have not been able to meet the growing resource needed for the economy as it was expected before. This study is
focused on the loan and advances of commercial banks with reference to Nepal Investment Bank Ltd. and Nabil Bank Ltd.

Loan and advance policies prevailing are not systematic and have unclear vision on credit aspects. Commercial Banks are seen ready to grant much more loans and advances and other facilities to its clients even against insufficient deposits. Unsecured loan and investment is increasing the possibility of the failure of the banks.

Due to tough competition the commercial banks are facing, the investments are insecure to high extend. As a result, investments are very challenging today. Commercial banks need to look for more secure and productive investment opportunity.

The most important and sensitive area, which affects the profitability of any bank is the portion of non-performing assets. Non-performing assets indicate the substandard, doubtful, and bad loans in which a bank has invested. As per the rule imposed by the regularity authority, i.e. Nepal Rastra Bank, $25 \%$ of substandard, $50 \%$ of doubtful and $100 \%$ of bad loan is to be kept aside from profit as loan loss provision on the nonperforming assets. This will decrease the lending capacity of the bank, as single borrower limit of the bank is determined on the basis of core capital it has. If banks fail to collect the installment at time, they will miss the opportunity to rotate that amount to multiple their profit. Like non-performing assets another major problem, which affects profitability and efficiency to a great extent, is the amount of interest suspense.

After discussing this problem another question may also arise, what caused these problems? The obvious answer is undisciplined management of fund and rampant lending on the basis of favoritism, nepotism, and of course for self-benefit. There was prudent credit policy, but in the books only, and the lending practice was never guided by its principle. The result of all these maladies is that Nepal is paying a huge cost in the form of foreign technical and management service. It is well known to all, banks having disciplined and strict management have low non-performing loan volume and making huge profit. Another reason for increment in non-performing loan is situational problems like unstable political conditions, violence etc. These things are making even those business failures, which are known as most successful once.

While the international standard level of non-performing assets is 5\%, in Nepal, the average level of non-performing assets (NPA) stands at $30 \%$. But this stands at whopping $52 \%$ and $62 \%$ in the Rastriya Banijya Bank and the Nepal Bank Ltd. respectively. In case of private commercial banks the non-performing assets average around $10 \%$ of total loan.

The banks generate their income in two ways, one is interest and another is fee/commission earning. Between the two, the first one is considered to be more risky because high investment has to be made in the form of loans and advance where considerable amount of risk is involved. Loan and advance is the crucial aspect of every financial institution. Success or Failure of the financial institutions depends on the quality of the loan granted. In the past decade number of the banks increased so rapidly that they are facing tough competition and in this scenario banks are providing unsecured and unproductive loans easily and swiftly to clients, this result in the rapid increment of nonperforming loans. Along with the liquidity of the banks are increasing as unfavorable economic condition makes investment in trade and industry risky. Investment in unsecured and unproductive loan may lead the bank to liquidation process. If the basement of the economy collapses then the situation of national economy is out of imagination.

The study deals with the following Issues:

- What is the situation of loan and advance in Nabil Bank Ltd. and Nepal Investment Bank Ltd.?
- How is relationship among loan and advances, total investment, profit, and deposit of Nabil Bank Ltd. and Nepal Investment Bank Ltd.?
- What is the lending capacity of Nabil Bank Ltd. and Nepal Investment Bank Ltd.?
- What is the situation of non-performing loan of Nabil Bank Ltd. and Nepal Investment Bank Ltd.?
- How effective is the role of NRB regarding loan and advances?


### 1.4 Objectives of the Study

The main objective of the study is to analyze the actual situation of loan and advances of selected banks. The specific objectives are as follows:

- To analyze the situation of loan and advances and lending capacity of Nabil Bank Ltd. and Nepal Investment Bank Ltd.
- To analyze the trend relating to loan and advances, non-performing loan, interest suspense, loan loss provision.
- To analyze the relationship of loan and advances with total assets, investment, deposit, loan loss provision.
- To analyze the situation of non-performing loan.
- To analyze the requirement of the role of NRB in the prospect of loan and advances.


### 1.5 Significance of the Study

Researches made on the banking system are in very few numbers in comparison to the overall reform of the system. Most of the researches done on the commercial banks are targeted in performance appraisal. Those studies were not sufficient in bringing the revolutionary reform in the sector of Loan and Advance. Loan, being the lifeblood of the banking system needs an accurate and quality research done.

Lending is the base of the whole banking system. Thus, this study on loan and advance of commercial banks carries great significance. This study is important for the individuals who are interested in knowing the condition of loan and advances of the banks. The credit department of the selected banks also can take suggestion from this study. Therefore this study is significant.

The main significances of the study are as follows:

- It can help share holders, banking professionals, loan seekers, and investors to know about the lending and recovery practices through the analysis of data.
- Students and teachers can also be benefited by the study.
- It can help the policy makers of the banks to take good decision through the recommendation of the study.


### 1.6 Limitation of the Study

The study implies the following limitations:

- The study is based on the data of five years i.e. from FY 2002/2003 to 2007/2008.
- The study is primarily based on the data available in published annual reports.
- Non availability of the various reference or sources act constraints for the study.
- Time and money have also played major role as constraints for the study.


### 1.7 Organization of the Study

The whole study is divided into five chapters. They are as follows:
Chapter One: Introduction
Chapter Two: Review of Literature
Chapter Three: Research Methodology
Chapter Four: Presentation and Analysis of Data
Chapter Five: Summary, Conclusion and Recommendations

Chapter one includes the background of the study, brief profile of sample banks, statement of the problem, objective of the study, significance of the study, limitation of the study, and organization of the study.

The relevant literatures have been reviewed in chapter two. It is divided in two parts; first one is the conceptual review and second is the review of related studies. It contains concept of commercial banking, conceptual frame work of the loan and advances, Review of articles, review of past related thesis and Research gap.

Chapter three includes the research design, data sources, population and sample, data collecting procedure, and data analysis procedures of the study.

Chapter four deals with the presentation and analysis of relevant data and information with the use various financial and statistical tools. It also includes the major finding of the study.

Chapter five is devoted to the summary of the research, conclusion derived on the basis of data analyzed and recommendations for improvement to the Nepal Investment Bank Ltd. and Nabil Bank Ltd.

The bibliography and appendixes are also included at the end.

## CHAPTER - II

## REVIEW OF LITERATURE

### 2.1 Conceptual Review

The history of banking system in Nepal in the form of money lending can be traced back in the reigning period of Gunakama Dev, the king of Kathmandu (NBL Patrika: 2037:2). During the period of Rannodip Singh, prime minister of Nepal, one financial institution ' Tejarath' was established to give loan facilities to the government staff and afforded loan facilities to the public in general in the term of interest but 'Tejarath' did not accept money from public(NBL Patrika; 2040: 4).

On $30^{\text {th }}$ Kartik, 1994, Nepal Bank Limited was established for the first time to provide modern and organized banking facilities. Being a commercial bank, it focuses on income generating and profit maximization. As it was only one commercial bank has to look the economic condition of country. Only one Nepal Bank Limited was not sufficient to look all the sector of country. So in $14^{\text {th }}$ Baishak, 2013 B.S. under the NRB Act 2012 with the function of controlling and monitoring banking activities, as central bank of Nepal, Nepal Rastra Bank was established. Similarly the $2^{\text {nd }}$ commercial bank Rastriya Banijya Bank was established in Magh 10, 2022 B.S., under Rastriya Banijya Bank Act 2021. For the development of the industry, commerce and trade, Nepal Industrial Development Corporation was established under Industrial Development Corporation act 2016. For the development of agriculture section, Agriculture Development Bank was established on $7^{\text {th }}$ Magh, 2024 B.S. under the Agriculture Bank Act 2024 ( Manandhar; 2007: 25).

With the growing activities of bank after the Nepal Bank Ltd. and Rastriya Banijya Bank, new banking policy was introduced for the establishment of joint venture bank in foreign investment with Nepalese co-operation. Its objective was to create healthy competitive banking system and provide cheap banking facilities to people. The establishment of joint venture banks gave a new horizon to the financial sector the country. The joint venture
banks are operating in Nepal are playing important role in economic development of the country.

### 2.1.1 Introduction to Commercial Banks

Bank is a business organization where monetary transaction occurs. It creates funds from its clients saving and lends the same to needy person or business companies in term of loans, advances and investment. So proper financial decision making is more important in banking transaction for its efficiency and profitability. Most of the financial decision making are concerned with lending policy and loan management. It plays the vital role in the business succession, so efficient management of lending policy is needed.
"A bank is an organization established to perform the financial transaction specified in section 47(1) of this act" (Bank and Financial Institution's Act; 2006:2).

Commercial Banks are the financial institution, which transfer monetary sources to users to users. In the process of such intermediation, Commercial Bank employs funds raised from different sources into different assets with a prime objective of profit generation an administrative assistance. According to Commercial Banks act 2031, "A commercial Banks means the bank which deals in exchanging currency, accepting deposit, giving loans and doing commercial transaction". The Commercial Banks pool together the savings of the community and arrange for their productive uses. They supply financial needs of modern business. The main purpose of establishing Commercial Banks was to contribute to the development of banking system, particularly in the remote and hilly regions, providing more banking facilities to the public.
"Commercial banks deal with other people's money. They have to find ways of keeping their assets liquid so that they could meet the demands of their customers. In this anxiety to make profit, the bank cannot afford to lock up their funds in assets, which are not easily releasable. The depositor must make to understand that the bank is fully solvent. The depositor's confidence could be secure only if the bank is able to meet the demand for cash promptly and fully. The banker has to keep cash for this purpose. Cash is an idle
asset and the bankers cannot afford to keep a large possession of his assets in the form of cash. Cash brings in no income to the bank. Therefore, the bankers have to distribute these assets in such a way that he can have adequate profits without sacrificing liquidity" (Radha Swamy, 1979:27).

The commercial bank is simply a business corporation organized for the purpose of maximizing the value of shareholder's wealth invested in the bank at an accepted level of risk. Commercial banks play important role in encouraging people to save from their income and investing that saving in productive sector for mutual benefit.

Beside the commercial banks, many other non- banking financial institutions formed the institutional dimension in financial sector, but financial system is dominated by the banking with the commercial banks constituting around 80 percent of the total banking transaction. The existence of the commercial banking system regularizes the scattered fund from public and lends it to productive sector to reduce the idle saving the country. What role a bank can play to assist the economic development is the main issue as economic liberalization has posed more responsibility and challenges on commercial banks. The existence of commercial banks in country like Nepal is not easy task as its role ranges from contribution to farmer to purchase a buffalo to establish the foundation of trade and industry.

Commercial banks are enjoying al so the emerging concept of retail banking. Thousands of mid career professionals are enjoying a better life thanks to the easy financing being provided by banks- from house loans to vehicle loans. Students are pursuing higher education by borrowing money from banks. Vast members of the common people now enjoy the opportunity to possess a bank account. Depositors can open an account by depositing just Rs.1. Rapid expansion of banking services and cutthroat competition, particularly in retail banking, have revolutionized bank financing and brought the service within reach of families on modest incomes. The beginning of this transformation was the entry of joint-venture banks in to the country some 24 years ago. (The Kathmandu Post; 2008: 4)

In Nepal, All Commercial Banks barely follow the directives and policies of Nepal Rastra Bank, as the Central Bank of Nepal. Nepalese commercial banks use to carry out their operations according to commercial Bank Act 2031 B.S. before promulgation of the Bank and Financial Institution Ordinance 2060 on 2060 Magh, $21^{\text {st }}$. Nepal Rastra Bank supervise and regulates the commercial banks on the basis of the directives issued by it. Nepal Rastra Bank formulates financial and monetary policies under which Commercial Banks and Financial Institutions are functioning. Supervision and regulation of Nepal Rastra Banks are mainly focuses on the

- Capital Structure
- Deposits
- Minimum Liquidity requirement
- Loan and Advances


### 2.1.2 Function of Commercial Banks

The business of commercial bank is primarily to hold deposits and make credits and investment with the object of securing profits for its share holders. Its primary motive is profit; other considerations are secondary.
"The two essential functions of commercial banks may best be summarized as the borrowing and lending of money. They borrow money by taking all kinds of deposits. Then it provides money to those who are in need of it by granting overdrafts to fixed loan or by discounting bills of exchange or promissory notes. Thus, the primary function of a commercial banker is that of a broker and a dealer in money. By discharging this function efficiently, a commercial bank renders a valuable service to the community by increasing the productive capacity of the country and thereby accelerating the pace of economic development" (Shekhar and Shekhar, 2000:75).

## Deposits

As the primary function banks collect funds from general public in the form of deposits paying certain stipulated interest. Bank collects mainly three type of deposit, those are: fixed deposit, saving deposit, and current deposit. Even deposit collection is the main
function of banks to operate its other regular function there is certain limitation in deposit collection. In Nepal, Nepal Rastra Bank as the central bank has issued directives and regarding those directives banks had to collect deposits. According to directives issued by NRB, Nepalese commercial banks can collect more than 20 times of their core capital as deposit.

## Lending

Lending as the fundamental function of bank is the cause of the origin of the banking. In the past, Commercial banks used to finance for short- term, however, banks lending operation have changed considerably over the years. They have started advancing loan to industrial, agriculture and priority sectors too. In the addition to deposit services and financing activities, banks provide some additional services to their customers. Along with the change in time the primary function of lending is change to other portfolios like credit cards, merchant banking, retail banking, traveler cheques etc.
"Lending is the essence of commercial banking, and consequently the formulation and implementation of sound policies are among the most important responsibilities of bank directors and management. Well conceived lending policies and careful lending practices are essential if bank is to perform its credit creating function effectively and minimize the risk inherent in any extension of credit" (Crosse, 1963: 87).
"The term loan means the disbursement of amount; direct of indirect guarantee and right to recover the loan against its interest or other charges; refinancing against the collateral given for loan or investment; renew or restructure of loan; and guarantee issued or commitment made for clearance of loan. It also denotes any kind of credit." (Bank and Financial Institution's Act; 2006: 5)

This definition emphasize the need of sound lending policies for effective lending to minimize the risk involved, for this management must be careful and well knowledge.

Credit is financial assets resulting from the delivery of cash or other assets by a lender to a borrower in return for an obligation of repay on specified on demand. Banks generally grants credit on four ways. (Chhabra and Teneja, 1991)

1. Overdraft.
2. Cash Credit.
3. Direct Credit.
4. Discounting of Bills.

### 2.1.3 Types of Lending (Credit)

## Overdrafts

It denotes the excess amount withdraw over their deposits.

## Cash Credit

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

## Term Credit

It refers to money lent in lump sum to the borrowers. It is principle form of medium term debt financing having maturities of 1 to 8 year.

Barely and Myers urge that bank credits with maturities exceeding 1 years are called term credit. The firm agrees to pay interest based on the bank's prime rate and to repay principle in the regular installments. Special patterns of principle payments over time can be negotiated to meet the firm's special needs (Richard, 1996:23).

## Working Capital Credit

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

## Hire Purchase Financing (Installment Credit)

Hire purchase credits are characterized by periodic repayment of principle and interest over the maturity of the credit. Hirer agrees to take the goods on hire at a stated rental including their repayment of principle as well as interest with an option to purchase.

A recent survey of commercial banks indicates those bank are planning to offer installment credit on a variable rate basis. It can be secured and unsecured as well as direct and indirect installment credits on a variable rate basis. It can be secured and unsecured as well as direct and indirect installment credit.

## Housing Lending (Real Estate Credit)

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

## Project Credit

Project credit is granted to the customers as per project viability. The borrowers have to invest certain proportion to the project from their equity and the rest will be financed as project credit. Construction credit is short-term credits made to developers for the purpose of completing proposed projects. Maturities on developers for the purpose of completing proposed projects. Maturities on construction credits range from 12 month to as long as 4 to 5 years, depending on the construction credits rage from 12 months to as long as 4 to 5 years, depending on the size of the specific project (Johnson, 1940:43). The basic guideline principle involved in disbursement policy is to advance funds corresponding to the completion policy is to advance funds corresponding to the completion stage of the project. Term of credit needed for project fall under it.

## Consortium Credit

No single financial institution grant credit to the project due to single borrower limit or other reason and two or more such institutions may consent to grant credit facility to the project of which is baptized as consortium credit. It reduces the risk of project among them. Financials bank equal (or likely) charge on the project's assets.

## Off- Balance Sheet Transaction

In fact, bank guarantee and letter of credit refer to off balance sheet transactions of financial institution. It is also known as contingent liability. Contingent liability pinpoints
the liability, which may or may not arise during the happening of certain event. Footnotes are kept as references to them instead of recording in the books of accounts.

It is non-funded based remunerative facilities but more risky than the funded until adequate collateral are not taken. Let's its two varieties be described separately.

## - Bank Guarantee

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

## - Letter of Credit (L/C)

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

## Credit Cards and Revolving Lines of Credit

Banks are increasingly utilizing cards and revolving lines of credit to make unsecured consumer credit. Revolving credit line lowers the cost of making credit since operating and processing cost are reduced. Due to standardization, centralized department processes revolving credits resulting reduction on administration cost. Continued borrowing arrangement enhances cost advantages. Once the credit line is established, the customer can borrow and repay according to his needs and the bank can provide the fund to the customer at lower cost.

### 2.1.4 Objectives of the Sound Credit Policy

The purposes of a written credit policy are:
i. To assure compliance by lending personnel with the bank's policies and objectives regarding the portfolio of credits and.
ii. To provide personnel with a framework of standards within which they can operate.

### 2.1.5 Principles of Good Lending

As already stated lending is the major income generating function of the commercial banks, the loans and advances made must be sound and safe and lending procedure must be proper and cautious. In this context below mentioned points are to be seriously considered for good loan practice.

## 1) Purpose

Why is a customer in need of loan? This is very important question for any banker. Lending purpose of banks should be productive so that it could be beneficial for customer, bank and nation as well. If borrower misuses the loan granted by the bank, they can never repay and bank will possess bad debts. Detailed information about the scheme of the project or activities should be examined before lending.

## 2) Safety

Bank should ensure that loan advanced by it is safe. Bank should be careful while lending so that the investment are not subject to any undue risk of being unproductive or due to dishonesty of the borrowers. If little bit of attention is given at the time of investment then it will be safe throughout the loan period.

## 3) Liquidity

It is well known that bank lent the money, deposited by public with confidence that the bank will pay back their money with interest when it matures or when needed, as loan. So, it is not sufficient that the lent money will came back but bank should also ensure that it would be returned in time to meet the short term obligations of the depositors.

## 4) Security

The primary objective of commercial banks is not to lend against security. It should lend on the basis of character, capacity and capital of the borrower. However, security is considered as insurance of a cushion to ball back upon in case of failure to repay the loan and interest dues by the borrower due to various reasons.

## 5) Profitability

A commercial bank can maximize its volume of wealth through maximization of return on their investment and lending, so they must invest their funds where they gain maximum profit. The profit of the commercial banks mainly depends on the interest rate, volume of loan, its time period and nature of investment on different securities.

## 6) Diversification

"One should not put all its eggs on the same basket" this saying is very important to the bank. Bank should adopt diversified lending strategy to minimize the risk of loss due to failure of certain sector. Diversification of loan helps to sustain loss according to the law average as if one sector fails then others may succeed.

### 2.1.6 Lending Criteria

While screening a credit application, 6-cs to be first considered which is supported by documents.

## 1) Character

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

- Memorandum and Article of Association.
- Registration certification
- Tax registration certificate (Renewed)
- Resolution to borrow
- Authorization-person authorizing to deal with the bank.
- Reference of other lenders with whom the applicant has dealt in the past of bank a/c statement of the customer.


## 2) Capacity

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

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


## 3) Capital

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

## 4) Collateral

Collateral is the security proposed by the borrower. Collateral may be of either nature moveable or irremovable. Moveable collateral comprises right from stock, inventories to playing vehicles. In case of irremovable it may be land with or without building or fixture, pant and machinery attached to it.

## 5) Credit Information

Now days, the number of non-performing loans is increasing rapidly. Two major reasons behind this are failure of the business and the fraud by the customer. To avoid this problem bank should collect detailed information about the customer i.e. Credit information.

Credit information includes information about following headings:-

- Personal details: - This part includes the bio-data of the customer like, address marital status, age, experience, income sources, payment habits, reference etc.
- Business details: - In this part, nature of the business, market scope of the product, cost and benefit of the business, investmentrequired etc are analyzed. Along this stakeholders of
the business are also inquired to gather the information about the business.
- Financial information: -
- Credit information bureau: - In this part information about the customer regarding the use of loan from other financial institutions, payment of loan installments and especially whether he is blacklisted or not etc are collected. In Nepal, Credit Information Bureau Limited is performing the duty of credit bureau.


## 6) Condition

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

### 2.1.7 Non-performing Loan

Non-performing assets or loans mean those loans which banks are unable to recover at scheduled time. Non-performing loans comprises of the principal due for more than 3 installments and interest due for more than 3 month. The most important and sensitive area, which affects the profitability of any bank, is the portion of its non-performing assets. Non-performing assets indicate the substandard, doubtful and bad loans in which a bank has invested. As per the rule imposed by the regulatory authority, i.e. Nepal Rastra Bank, $25 \%$ of substandard, $50 \%$ of doubtful and $100 \%$ of loss loan is to be kept aside from profit as loan loss provision on the non-performing assets. This will decrease the lending capacity of the bank, as single borrower limit of the bank is determined on the basis of core capital it has.

International standard of non-performing loan is 5\% of total loan and advances, while the average non-performing loan of commercial banks in Nepal is around $30 \%$. But this stands at whopping $52 \%$ and $62 \%$ in the Rastriya Banijya Bank and the Nepal Bank Limited respectively. In case of private commercial banks the non-performing assets average around $10 \%$ of total loan.

### 2.1.8 Loan Loss Provision

Loan loss provision is the amount kept as reserve form the profit to cover the nonperforming loan. Loan Loss Provision, in fact, is the cushion against future contingency created by the default of the borrowers. Loan Loss Provision shows the figure that is the summation of provision made against all types of loans as per the NRB directives. The NRB directives direct to make the provision $1 \%, 25 \%, 50 \%$ and $100 \%$ for good loans, sub-standard loans, doubtful loans and loss loans respectively. This Loan Loss Provision occupies the larger share in the total provision presented in the Profit and Loss Account and definitely decreases the profit. The more the loan loss Provision, it suggests two definite things, more of total loan and or more of bad loan. Since, according to the NRB directives, $1 \%$ provision is to be provided for all good loans too, it does acquire a huge portion of the total Loan Loss Provision.

### 2.1.9 Interest Suspense

Interest Suspense refers to that portion of interest, which is due but not collected. NRB directives do not allow showing due unpaid interest as income. The interest income form loan should be collected in corresponding quarter in cash basis, if the amount could not be collected in that period than that amount is kept as interest suspense. Such interest is shown in liability side of Balance Sheet under the heading "Other Liabilities and Provisions". This means interest suspense is the reserve or provision kept for interest could not be collected in stipulated time. Interest suspense directly affects the profit of the bank. Thus, increase in this interest suspense decrease the profit of the company. If the bank has to keep interest suspense then the amount has to be deducted from the income and kept as provision till the amount is collected.

### 2.1.10 Recovery

Recovery of the loan as another part of the lending function is much important and much tedious job a bank has to perform. Lending is the most crucial function of bank, precisely the position and status of commercial banks is read via loan and Advances it has mobilized. But a profound thought highlight that only giving out Loans and Advances to the maximum extends is not the only important thing. The more crucial part is the recovery of loans.

Success of the commercial banks depends on the success they get in recovery of the loan and advances. The commercial bank should regularly watch the repayment of each and every loan it has mobilized. It should be best tried that none of the borrowers miss their single scheduled repayments. Reminding each borrower prior about the upcoming due date should be made the regular function of the respective departments in the bank. The function continues as sending reminder letter at different time intervals as the requirement, as according to the regulation of the bank. This is very crucial section and thus, it should be well observed and inspected. The bank should try all possible legal techniques to collect the repayments. Even using the possible techniques if bank could not recover the loan, as the ultimate option of recovery bank should liquidate the collateral, which is too much tedious job to perform. So banks should always play safeside while lending a loan.

### 2.1.11 Loan Purchase and Repurchase

New provision of purchase and sale of an active loan between one bank or financial institution and another bank or institution has been made. It is expected that this provision will intensify the financial transaction on the one hand and purchase and sale of loan transactions will take place on a healthy footing.
a. While purchasing loan, the purchaser should assume the right of realizing loan from the client for which a prior consent of the concerned client is necessary.
b. Purchaser is required to book such loan in its loan swap sub-head of the account.
c. All details of conditions and status of the loan should be obtained in written by the purchaser prior to closing of purchase deal.
d. The purchaser bank or financial institution should obtain in writing such details pertaining to the loan as date and type of loan, repayment status, past loan transaction status, capacity of the guarantor, status of loan classification etc.
e. The purchaser bank or financial institution is required to loan loss provision according to the existing loan classification and loan loss provision.
f. All the documents that clearly shows that the concerned loan is secure, and the proofs of benefit from the transaction to the purchaser should be in the concerned file in up-to-date form.
g. Only the banks and financial institutions which do have such provisions in their current practice are eligible for such transactions. Half -yearly report on such transactions is required to be filed to the NRB's Supervision Department within 15 days of the expiry of the half-yearly period.
h. In case of loan purchase deal which stipulates a condition of repurchase of sold loan by the seller from the purchaser in case the purchaser cannot realize the purchased loan, such loan should be booked in the balance sheet of the purchaser as potential liability and for the purpose of capital reserve such liability should be given 50 percent weight as risk burden.

### 2.2 Review of Relevant Act

The act has significant impact on the commercial banks establishment, their mobilization and utilization of resources. Before implementation of Bank and Financial Institution's Act 2063, all the commercial banks have to confirm to the act, provisions specified in the commercial bank act 2031 and the rules and regulations formulated to facilitate the smooth running of commercial bank. Now all commercial banks and financial institutions have to work under Bank and Financial Institution's Act 2063, implanted with view point to reform the banking system and for efficient operation of banking system.

## Directives Issued by Nepal Rastra Bank to Banks and Financial Institutions

Nepal Rastra Bank has established a legal frame work by formulating various rules and regulations to mobilize or invest the deposit of the bank in different sectors of the different parts of the nation, to prevent them from the financial problems, as a Central

Bank. These directives must have direct or indirect impact while making decisions. Those rules and regulation are discuss which are formulated by NRB in terms of investment and credit to priority sector, deprived sector, other institution, single borrower limit, CCR, loan loss provision, capital adequacy ratio, interest spread, productive sector investment. Commercial bank is directly related to the fact that how much fund must be collected as paid up capital while establishing the bank at certain place of the nation, how much fund is needed to expand the branch and counters. But we discuss only those which are related to lending function of the commercial bank.

## Loan Classification and Loan Loss Provision

As per the authority given by Nepal Rastra Bank Act 2058, Nepal Rastra bank has issued following directives regarding the classification of loan and advances and provisioning for possible loan loss to the licensed financial institutions.

## 1) Classification of Loan and Advances

- Pass Loan and Advances: which loan having no overdue principal or having overdue principal for 3 months only, are to be include in this category.
- Sub-standard: Which Loan and advances having overdue principal for more than 3 month and within 6 months, are to be included in this category.
- Doubtful Loan and Advance: Which loan having overdue principal for more than 6 month than 6 moths and within 1 year, are to be included in this category.
- Loss Loan and Advances: Which loan having overdue principal of more than 1 year is to be included in this category.

Note:

- Financial Institutions can categorize the upper category loan to lower category. For example sub-standard loan can be categorized as doubtful loan or bad loan.
- Bills purchased and discounted are also to be considered as loan and advances.


## 2. Additional Arrangement for Pass Loan

Loan against gold and silver, fixed deposit card, credit card loan and loan against Government security-bond and Nepal Rastra Bank bond are to be included in pass loan category.

But, if loan and advances is disbursed against the additional collateral of the fixed deposit card, Government security bond or Nepal Rastra Bank bond, than those loans are to be categorized as other.

Only working capital loan having tenure of one year shall be categorized as pass loan after the renewal. If the interest on working capital loan is irregular then it should be categorized as per the due period.

## 3. Additional Arrangement for Bad Loan

Any kind or loans overdue or regular having following remarks shall be categorized as bad loan.

- Insufficiency of the collateral.
- Bankruptcy of the customer.
- If customer is out of contact or untraced.
- If within 90 days, the expired bills purchased or discounted and loans and advances turned from the off balance sheet facilities like LC and guarantee, are not repaid.
- Misuse of loan and advances.


## Clarification:

Here misuse of loan refers to the use of loan in other purpose rather stipulated; nonoperation of the project, income from project/business is used in other purpose rather than repay of loan, during the inspection if inspector or auditor found the misuse of loan.

- After six months of start of auction process for the recovery of loan or in the process of recovery if case is running in court.
- In case of loan disburse to blacklisted customer by Credit Information Bureau.
- If project/business is not in condition of operation or not in operation.
- If Credit Card loan is not written-off within 90 days of maturity.


## 4. Additional Arrangement for Term Loan

In case of term loan with repayment in installments, if principal/interest is overdue, total outstanding shall be categorized as per the principal/ interest overdue installment period.

Here, Term loan refers to loan and advances having tenure of more than one year.

## 5. Restriction to recover principal and interest beyond the Overdraft Limit

Principal and interest of loan couldn't be recovered by overdrawing the customer's current account beyond the overdraft limit. But, this arrangement doesn't obstruct to recover principal and interest of loan by debiting the customer's account balance. If the customer's account overdrawn to recover principal and interest, as per the arrangement of debiting the customer's account to recover loan, and the amount is not paid within one month then loans recovered should be categorized one step lower than categorized adding the amount overdrawn into outstanding loan. Directive no. 4/061/62 regarding the arrangement of interest income should be followed while posting the interest income.

## 6. Letter of Credit and Guarantee

If LC or guarantee or other non-fund based liabilities are paid changing it to fund based liability, then those credit facilities should be classified as good loan for first ninety days and after that if not collected should be treated as bad loan.

## 7. Reschedule and Restructure of Loans

A. Financial institution can reschedule or restructure the loan if it is satisfied on following aspects of the written plan submitted by the customer. Clear basis of loan reschedule or restructure should be enclosed in loan file.

- If the sufficiency of loan document and collateral is justified.
- If the financial institution believes that the reschedule or restructured loan will be recovered.


## Clarification

- Reschedule means the extension of tenure of loan or facility.
- Restructure means amendment in nature, terms and condition, limitations or time period of the loan or facility.
B. To reschedule or restructure the loan as per above section, minimum $25 \%$ of to date interest should be cleared along with submission of written plan and program.
C. If loan of the industries recommended by sick industry primary investigation and recommendation committee of the Nepal Government is to be rescheduled or restructured completing necessary procedures and paying minimum $12 \%$ interest, then it should be provisioned minimum $25 \%$ for loan loss. But if interest is paid less than $12 \%$ then it should be provisioned as per former due period.
D. Separate record of the loan rescheduled and restructured as per sub-section 7(A) and (C) is to be kept.


## 8. Provision to be maintained for Possible Loan Loss

A. Loan and bills purchased classified as per this directives should be provisioned for possible losses as following:

Loan Classification Loan Loss Provision

- Good $1 \%$
- Substandard 25\%
- Doubtful 50\%
- Bad 100\%
B. Rescheduled and restructured loan should be provisioned as following:

1. Minimum $12.5 \%$ loan loss provision is to be maintained for reschedule or restructured loan.
2. If deprived sector loan and insured priority sector loan are rescheduled and restructured, then only $25 \%$ of loan loss provision mentioned in part (i) is to be maintained.
3. Rescheduled and restructured loan could be converted to good loan in condition of regular repayment of principal and interest installment for 2 years.
C. Uninsured priority sector loan, deprived sector loan and small and medium industry loan is to be provisioned as per section 8 (A). But in case of insured loan, $25 \%$ of provision rate specified in section $8(\mathrm{~A})$ is to be maintained for loan loss provision. The required provisioning for insured priority sector credit/deprived sector credit is as follows:

| Pass | $0.25 \%$ |
| :--- | :--- |
| Sub-Standard | $5 \%$ |
| Doubtful | $12.5 \%$ |
| Bad | $25 \%$ |

D. For the loan against the personal or institutional guarantee, a statement of the assets/property not claimable by others, equivalent to the amount of the personal guarantee is compulsory. Loan against the personal or institutional guarantee should be classified as above. The loan classified under good, substandard and doubtful is to be provisioned $20 \%$ extra in addition to specified rate for the class i.e. $21 \%, 45 \%$, and $70 \%$ for pass, sub-standard and doubtful loans respectively. If the loan is flowed taking personal or institutional guarantee as additional collateral being physical property insufficient, it that case also provision is to be maintained for additional loan as mentioned above. The separate classification report for these loans is to be prepared.

## 9. Condition to Write Back Loan Loss Provision

In the following conditions only loan loss provision could be wrote back.

1. If loan is wrote off.
2. In the case loan installment or partial loan is repaid, while calculating loan loss provision as per new classification the loan loss provision maintained for the repaid loan could be wrote back.
3. If the installment and interest of the loan rescheduled or restructured is paid regularly for 2 years then loan loss provision for such loan could be wrote back.

Showing the provision wrote back amount in profit, dividend and bonus share could not be distributed.

## Directives regarding Credit Information and Black-List

Information about the customer is to send to Credit Information Bureau:
Commercial banks and financial institutions must send information about the customer, who is sanctioned Rs. 25 lakhs or more loan, once as per the C.I. form no. 1 within 15 days of month end and quarterly report as per C.I. form no. 2 within 15 days of quarter end till loan was active.

## Compulsory to Acquire Credit Information

Commercial banks and financial institution must acquire credit information about the customer form C.I.B. to provide new loan, renew, restructuring or rescheduling a loan of Rs. 10 lakhs or more.

## Condition for Black Listing

Customer using loan facility of Rs. 25 lakhs or more will be black listed under following condition(s).

- If principal or any installment of principal or interest was due for 9 months.
- If misuse of loan was proved.
- If collateral pledge for the loan was depreciated to value not enough to cover loan or collateral was destroyed.
- If misuse of collateral pledge was proved.
- If customer disappears.
- If customer was bankrupts.
- If loan was not recovered even after auction notice was published or if bank suit case against customer.
- If court declare guilty of using fraud cheque, draft, foreign currency, credit card and bill to cheat other.
- If a person, firm, company or organization was found involved in financial crime.


## Person, Firm, Company or Organization to be Black Listed

1. Person, firm, company or organization using loan facility.
2. Proprietor of proprietorship firm.
3. Partners of partnership firm.
4. Guarantor person, firm, company or organization, but guarantor should be noticed 35 days time to pay the amount he guaranteed.
5. Directors of company or organization.
6. Shareholders of public or private company having $15 \%$ or more shares. If shareholder having less than $15 \%$ share was benefited form loan he should be black listed.
7. Firm, company or organization, in which a black listed person, firm, company or organization, has $15 \%$ or more shares.
8. Firm, company or organization having director as representative from black listed firm, company or organization.
9. Nominee of customer, if he refuses to bear a liability.

## Procedure for Black Listing

If the condition of customer meets the above mentioned directions, banks and financial institution must refer for black listing.

Restriction to provide loan to black listed customer:

Commercial banks and financial institutions are restricted to provide new or additional loan, to renew loan, to person or firm black listed as per this directives. But the existing loan could be rescheduled or restructured within limitations or NRB's directives.

During the review of previous studies, the study made on loan and advances was rare and on non-performing loan was even rare. Studies made on outflow of fund of banks were mostly based on overall investment policy of the bank. There was only countable studies were done on loan and advances and almost of them were done in general.

In this context, this study is focused on the non-performing loans of the banks along with the analysis of situation of the loans and advances. Loan and advances is the life-blood of the bank and non-performing loan is disease for it, so the study is made to analyze the effect of non-performing loan on the loan and advances and performance of the bank, and its effects on income.

The focus of the study is detailed study of various factors related with the loan and advance i.e. nonperforming loan, loan loss provision, interest suspense etc. and income generating etc. and their relation with loan and advances. The study even analyzes the composition of non-performing loan and loss provision. In this study analysis is made on the relation of loan and advances with various factors of the balance sheet as well.

### 2.3 Review of Previous Studies

In this part, effort has been made to examine and review some of the related studies. Various articles are been written in the related topics. Efforts have been put to get the knowledge about the Loan and advances.

### 2.3.1 Review of Articles

Nepal Rastra Bank (2007) published a report entitled with "Money and Banking". In this report, NRB showed the performance of deposit and loan of commercial banks, loan purchase and repurchase, deposit mobilization etc. According to the NRB, Deposit collection of commercial banks is the major source of resource mobilization. It increased by 12.3 percent in the review period of FY 2006/07 compared to 7.6 increases in the
corresponding period last year. The total deposit collection rate went up due to satisfactory increase in the flow of remittances and time deposit collection schemes launched by the commercial banks. Demand deposit in the review period of last fiscal year was negative by 3.1 percent, which increased by 5.4 percent during the review period of the current fiscal year. Savings deposit expanded by 7.9 percent last year as compared to 9.0 percent in the review period of the current fiscal year. Fixed deposit rose by a high rate of 20.2 percent this year as against 11.8 percent rise last year. Margin deposit, however, decreased by 4.8 percent contrary to the increase of 1.3 percent registered last year, due to the decline in import. Ratio of total deposits to loans and advances of the commercial banks stood at 82.1 percent as against 86.0 percent last year.

Commercial bank's loans and advances (Principal and interest) during the review period of last fiscal year increased by 8.1 percent as compared to 5.4 percent increase this year. During this review period, it increased by 10.6 percent after the adjustment of the loan amount underwritten by NBL and RBB. Among various investment sectors of commercial banks, claims on financial and non-financial public enterprises increased by 2.1 percent as contrary to 5.1 percent decrease in the review period of last year. There is some increase on claims toward non financial enterprises due to increase in claims on Nepal Oil Corporation, National Trading Ltd. Janak Education Materials Center and Janakpur Cigarette Factory. As regards to the claims on financial enterprises, it has sizably increased in the review period of this year compared to the decrease by 0.3 percent last year. This was due to short-term loan flow from commercial banks to the development banks and financial companies. Claims on private sector during the review period of this fiscal year increased marginally only by 10.3 percent compared to the increase of 10.1 percent last year. Obviously, the reason behind such marginal increase is that investment prospect remained fluid in the backdrop of prevailing political situation, tension-ridden relations with industrial laborers and the disturbances in Terai. Observed marginal increase was made possible by the loan diversification drive of the private sector banks. An analysis of sectored distribution of loans (principal only) revealed that production sector shared 28.08 percent, wholesalers and retail traders 20.15 percent,
construction sector 8.09 percent, services industry 7.54 percent and agriculture sector shared 6.88 percent.

Khanal, (2007) a working paper published entitled with "Banking and Insurance Services Liberalization and Development in Bangladesh, Nepal and Malaysia" A comparative analysis.

According to Khanal, Nepal gradually experienced a deepening crisis in its financial system. The crisis was worsened by the increased share of non-performing assets in two state-owned commercial banks. By 2000, the ratio of NPAs of these banks climbed above 60 percent, indicating a very poor financial regulatory system. As a result, a comprehensive financial sector reform programme was started in 2002, aimed at creating a competitive, market-friendly, well-diversified and prudently managed system capable of leading the healthy growth of the financial sector. The major components of the initial programme were three-fold: (a) the reengineering of NRB; (b) the restructuring of stateowned banks (i.e., the Rastriya Banijaya Bank and the Nepal Bank Limited); and (c) capacity-building in the financial sector. Initially, the focus of reform was on improving the legislation and prudential norms in the financial sector. The enactment of the New NRB Act, 2002 and the introduction of some steps to enforce better prudential regulations are the outcome of that reform effort. The Banking and Financial Act, 2006 (an umbrella Act covering all financial institutions) was enacted with the aim of bringing about more reforms in financial institutions in a more coordinated way. Under the comprehensive financial sector reform plan, a new thrust has been given to prudential regulations. The directives related to the prudential regulations include:
a. Maintenance of capital adequacy;
b. Loan classification and loan loss provisioning;
c. Limiting of credit exposure and facilities to single borrowers, groups of related borrowers and single sectors of the economy;
d. Accounting policies and formats of financial statements;
e. Minimization of risk;
f. Corporate governance;
g. A time frame for the implementation of regulatory directives issued in connection with inspection and supervision of the banks;
h. Investments in shares and securities;
i. Statistical reporting by commercial banks to NRB;
j. The sale and transfer of promoters' share;
k. Provisions related to consortium financing;

1. Provisions for blacklisting;
m. Maintenance of the cash reserve ratio;
n. Provisions for bank branches;
o. Provisions related to interest rates; and
p. Provisions related to financial resource collection.

Timilsina, (2007) in his article about AMC has wrote following an understanding reached between the central bank and private sector financial instituting, the much-touted Asset. Management company (AMC) and independent financial institution aimed at reducing huge volume of non-performing assets (NPAs) in the financial system, is likely to be established with revised investment pattern on the capital structure soon.

The main focus of the proposed company would be on the management of the nonperforming assets of four financial institutions that include Nepal Bank Limited, Rastriya Banijya Bank, Agriculture Development Bank and Nepal Industrial Development Corporation.

According to the guidelines set by the central bank, the company would re-value the collateral and loans at the current market price. The company then will take charge of such loans. The concerned financial institutions would be provided with governmentbacked AMC bonds of equal value to the recalculated value of bad assets. The Asset Management Company can manage such assets by either re-operating or by selling. The concerned financial institutions and the AMC would settle the deal jointly.

Huge volume of non-performing assets in the financial system has been endemic in the Nepali Financial system. According to a latest estimate, "a loan of around 11 billion rupees, which is more than 25 percent of the assets of the government owned commercial banks, is non-performing. And such bad debt in the private sector banks is around 10 percent of total loan".

Thapa, (2006) in his articles "What ails our banking sector?" states, "The traditional and the most indigenous forms of credit still exist in the Nepalese banking sector. A person, known as gold expert, sits in one the counters of Nepal Bank and lends money against the custody of gold and other valuables (the modern term for such lending is Gold Bond). The same bank and other Nepalese banks also provide other types of credit, such as overdraft and time loan. These concepts although feasible in the present scenario might not provide the cushion for all the banks in the future to make prudent lending and emerge as successful financial institutions."

Shrestha, (1999) in his article 'Modus Operandi of Risk Appraisal and in Bank lending' states" Effective credit risk management allows a bank to reduce risks and potential NPAs. It also offers other benefits. Once banks understand their risk and their costs, they will be able to determine their most profitable business and, thus, price products according to the risks. Therefore, the banks must have an explicit credit-risk strategy supported by organizational changes, risk measurement techniques and fresh credit process and systems. There are five crucial areas that credit risk management should focus on.

1. Credit sanctioning and monitoring process.
2. Approach to collateral.
3. Credit risks arise from new business opportunities.
4. Credit exposure relative to capital or total advances.
5. Concentration on correlated risk factors.

Apart from these, the bank management should regularly review all assets quality issues including portfolio composition, big borrower exposures and development in credit
management policy and process. Improving risk management will not be easy or quick. However, Nepalese bankers have little choice. Hopefully, the banks adopt good risk management practices and will be able to keep both strategic and operational benefits".

The Nepalese banks having greater network and access to national and international capital markets have to go for portfolio management activities for the increment of their fee based income as well as to enrich the client base and to contribute in national economy.

Astounding level of NPA of the banking system, which stands at 30 percent, has caused anxiety and has become a matter of concern. The situations is even worse in case of the two banks RBB ( $52 \% \mathrm{NPA}$ ) and NBL ( $62 \% \mathrm{NPA}$ ) which together account of 37 percent of the total deposits of some Rs. 200 billion and 40 percent of the total loan outstanding of Rs. 125 billion of the banking system in country. Besides, some of the private banks also do not seem to be doing well. This deplorable situation along with the need to make our financial players competent enough to take on the financial players of international repute in the gradually evolving competitive environment, prompted us to go ahead with the reform measures.

In the light of crisis that struck different economies at different periods of time and the measures adopted to overcome the problems there, we in Nepal have decided to make a frontal attack in a comprehensive manner on problems of varied nature and magnitude that the financial sector of Nepal is riddled with. Management of the two ailing banks has been handed over to two teams consisting of experts from within and outside of Nepal.

Financial sector reform measures can be broadly grouped under three heads: 1) restructuring of RBB and NBL. 2) Re engineering of NRB, and 3) Capacity building in the financial sector. The enactment of new Nepal Rastra Bank Act, 2002 and enforcement of inspection and supervision manual based on the recommendation of the Basel Committee are important achievement. Further, with a view to strengthen the legal framework and consolidate the financial sector an umbrella act- Banks and Financial Institutions Act is in the process of being approved. NRB now has decided concentrate only on core functions and therefore is shedding non-core activities and reducing the
number of non- professional staff, which has been effected through voluntary retirement scheme.

Financial institutions in Nepal suffer from unclear role and responsibilities of managerial bodies, boards, shareholders and other stakeholders. Further, in view of the absence of a code of conduct for employees, managerial bodies, board members and other stakeholders, and rampant irregularities financial sector, NRB has initiated different measures to improve corporate governance in the financial sector.

Some of these include:-

- Raising paid up capital for national level commercial banks from Rs. 500 million to Rs. 1 billion.
- Increase in Share capital participation in a national bank by a foreign bank to 67 percent from 50 percent.
- Setting of minimum qualification requirement for promoters interested in opening financial institutions.
- Issuing of directives in regard to capital adequacy, loan classification and loan loss provision.
- Establishing code of conduct for governing bodies of banks, defining the duties and responsibilities for the Board of Directors and establishing qualification for the appointment of Chief Executive Officer." (Rawal, Dec. 19- Dec. 25, 2003)


### 2.3.2 Review of Unpublished Thesis

Under this section, various dissertations were reviewed. Though, the same research study was not available. Some dissertations, which are slightly related to this study, have been reviewed. These are follows:

Mishra, (2007) had conducted a thesis on "Credit Management of Everest Bank Limited". In order to carry out the thesis she had used primary and secondary data. Even though, adequate data had collected from secondary sources. For the analysis of data she had used financial method and Statistical method.

The main objectives of the study are as follows:

- To examine and evaluate the various stages occurred in loan management procedure.
- To analyze the lending efficiency of the bank.

The major findings of the study are as follows:

- EBL bank has sufficient liquidity. It shows that bank has not got investment sectors to utilize their liquid money.
- Provision for credit loss has been increasing year by year of EBL bank and decreases in the year 2006. Due to political disturbance in the country in the country credit takers are not getting good return from their investment sectors.

On the basis of major finding she had recommended as follows:

- Cash and bank balance of EBL bank is high. Bank efficiency should be increased to satisfy the demand of depositor at low level of cash and bank balance does not provide return to the bank. Therefore some percentage of the cash and bank balance should be invested in profitable sectors.
- EBL bank should avoid extending credits merely based on oral information presented at the credit interview. Historical financial and trade records should be obtained for proper assessment of the proposal.
- Bank should regularly follow the credit customers. If the customers have utilized their credit for same purpose or not committed of the time of taking credit from the bank.
- The researcher felt to improve internal system more effectively and introducing of new strategies and major functions for effective existing credit management for all selected banks.

Tamrakar, (2007) had conducted a thesis on "Study on Loan and Advances of Commercial Banks" with special reference to Nepal Investment Bank Ltd., Everest Bank Ltd. and Nepal Industrial and Commercial Bank Ltd. In order to carry out the thesis he
had used secondary data. For the analysis of data Financial Tools: ratio analysis and Statistical method: Standard deviation, co-efficient of variation, correlation, time series, descriptive analysis were used.

The main objectives of the study are follows:

- To examine the present situation of loans and advances made by the commercial banks under study.
- To evaluate facts regarding the lending and recovery of loans.
- To analyze the lending capacity of the banks.
- To assess the current situation of NPA in commercial banks and analyze its effect on the performance of the commercial banks.

The major finding of the studies as follows:

- Due to increment in deposits the volume of loan and advances of the commercial banks are increasing.
- The lending and recovery trend of the commercial banks is inconsistent; however the lending and recovery process is continuously going on.
- The volume of non-performing loan reveals the situation of loan recovery of commercial banks.
- The lending capacity of the banks is increasing year after year along with its core capital.
- Regarding the loan and advances portfolio, the commercial banks are focused to lend private sector only.
- The loan and advances contribute major portion in total income.
- The portion of non-performing loan in total loan portfolio is improving year after year, however the non-performing loan portion of bad loan is highest.
- Turning new loans into non-performing is rare and the past non-performing are still not recovered and degraded every year.

On the basis of above findings he had recommended as follows:

- The volume of loan and advances of all three subjected banks are increasing. This is good, as it will increase the interest income. But the serious thing is increment of non-performing loan. The neck to neck competition between banks led them to rampant lending which results in non-performing loans. Thus the perfect credit appraisal should be followed to avoid the bad loans. Banks should thoroughly analyze the capital, character, management capability and credit information of the customer as the primary factor and external environment and collateral as the secondary factor before taking lending decision. After loan disbursement the regular monitoring and follow-up is essential to maintain the loan as good loan.
- Banks seems to be focused only on loan and advances while there are various other relatively risk-free sectors of investments like, stocks, debentures, etc. Portfolio condition of all three banks should be examined carefully in regular interval to maintain equilibrium condition. The banks should not forget the statement "all eggs should not be kept in same basket". The subjected banks, especially EBL, are suggested to increase their portfolio in government sector lending and bills purchased, which are relatively less risky, as they have only nominal portion of those in their portfolio.
- The analysis of non-performing loan, loan loss provision and interest suspense shows that NIBL and NIC have to focus more on quality lending and effective recovery in comparison with EBL.
- To acquire the market space in today's growing neck to neck competition in banking sector, the banking should be customer oriented. It should facilitate customers and should provide easy and quick services in convenient way and along with this it must follow the safety measures to banks investment then only success will be achieved.

Manandhar, (2007) had conducted a thesis on "Customer's attitude towards Nepal Bangladesh Bank Limited". In order to carry out the thesis he had used primary as well as secondary data. For the analysis of data Financial Tools: ratio analysis was used.

The main objectives of the study are follows:

- To examine the trend of deposit and loan and advances of sample bank.
- To examine the major performance indicator of sample bank.

The major finding of the studies as follows:

- Non-performing credit of the bank was increasing over the years. This trend shows the negative aspect of the bank.
- The trend of total loan and advances during the five-years of study period was in increasing even total lending decreased in the year 2003 and 2005.
- The investment of trend of NB bank over the study period was in rapidly increasing trend.
- It shows that NB bank has sound lending and investing policy to utilize its scattered resources.

On the basis of above findings he had recommended as follows:

- NB bank should adopt the sound credit collection policy. It helps to decrease loan loss provision and non-performing loan of the bank. The policy should entire rapid identification of delinquent loans, immediate contact with borrower and continual follow-up until a loan is recovered.
- NB bank most concentrate on decreasing ratio of return on total assets as well as return on loan and advances and invest in productive as well as profitable areas only, which give high return with low risk.

Subedi, (2007) had conducted a thesis on "Credit culture of commercial banks in Nepal with reference to Nepal Investment Bank Ltd., Bank Of Kathmandu Ltd., And Kumari Bank Ltd.". In order to carry out the thesis he had used basically secondary data but partially primary data were also used. For the analysis of data Financial Tools: ratio analysis was used.

The main objectives of the study are follows:

- To study the lending and recovery policies of selected commercial banks.
- To measure and compare the total amount of lending.
- To analyze recovery management and non-performing assets position.

The major finding of the studies as follows:

- It is important for the commercial banks to use an appropriate quantification methods or tool suitable with proper risk control and monitoring. By which the banks can easily reduce the NPL and increase the profit. In order to cover the risk inherent in the lending portfolio, banks have to make loan loss provision by categorizing the loans into different category as per the NRB directives.

On the basis of above findings he had recommended as follows:

- Only loan disbursement is not enough, an addition loan audit should also be done to find out whether the bank loan is properly utilized or not. The objective of such audit is to be in direct connection with the borrower until the loan is recovered.
- Deed of loan or loan contract should at least contain quantity of loan, interest rate, the date of recovery, the name, addresses and year of loan proponent, date of deed of loan etc. above all the deed should be registered from the related office.
- With the feasibility of the project, the banks are recommended to get all the credit information's such as the loan proponent's character, the securities given to the bank, the detail of the properly and their reality. This will help to recover the loan amount in the future conditions.
- Banks strictly follow NRB directives in case of loan loss provision and nonperforming loan. Only classification of loan loss provision and non-performing loan is not enough. Banks should put target to minimize the NPL and increase the profit every year. Healthy recovery efforts should be followed to collect the loans in time.
- Banks seem to lack provisioning loan write-offs such banks and financial institution should have its own loan write-off policy. Top management with the concurrence of legal and audit department have to make decision to write-off the loans against reserve made for loan loss. However, efforts should be continued to be more to collect the loan unless and until the board decide the loan is no longer to be followed.
- Poor credit management and deterioration in the quality of loans give birth to nonperforming assets. The internal measures play significant role to control the growth
of NPL's best credit practices, culture and policies are required to strengthen the internal factors. The banks should insure that risk are accurately identified, assessed and controlled properly. A proper risk management is undoubtedly an important tool for a good banking and NPL's management.
- In order to strengthen the financial discipline a system for obtaining credit information needs to be developed. For this purpose, the directives of black listing was issued by NRB which helps to improve the credit information system and dealing with willful defaulters in a scientific way. This facilitated to restore a good credit culture among bankers and the borrowers. Hence bankers are strictly following the directives.
- Preventative measures should be helpful to control the growth and curative measure will be beneficial to lower down the level of NPL's in the system. In order to resolve the problem, the root cause of the problem needs to be identified, analyzed and properly addressed. If NPL's in the system is growing due to the lack of good credit culture, corporate governance and risk management skills within the institution; prudential measures such as: issuance of prudential regulation, compliance of regulations and strengthening of internal risk management skill, formulating of risk control policies and procedures will be beneficial.


### 2.4 Research Gap

The purpose of this research is to develop some expertise and ideas in the area of loan and advances. It is focused on seeing the new contribution made in the area, to receive some idea, knowledge and suggestion in Loan and Advances of sample commercial banks. When completing this study, the previous studies cannot be ignored because they provide the foundation to the present study. This study covers the period of 6 years beginning from the FY 2002/03 using the most updated data available.

Here it is clear that the previous thesis with same title and same kind can very easily be found. But this thesis is different in the sense that this work focuses on the loan and advances of two of the most successful banks of Nepal i.e. Nepal Investment Bank and Nabil Bank. Most of the other works combine different banks which make the study very
vast and diverts them from analyzing and focusing on some certain topic deeply. To fill that kind of gap, this study have focused on the loan and advances of two major banks operating and thoroughly analyzed them. Therefore regarding all these things, certainly this study will prove landmark for the upcoming students and other personals interested in this topic.

## CHAPTER - III

## RESEARCH METHODOLOGY

Research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objectives in view. Research methodology is a way to systematically solve the researcher problem (Kothari, 1999:10). In this chapter research methodology is presented for achieving the predetermined objective. Research methodology includes a philosophically coherent collection of theories, concepts or ideas as they relate to a particular discipline or field of inquiry. The chapter includes research design, population and samples, nature and source of data.

### 3.1 Research Design

A research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern of framework for the project stipulates what information is to be collected from which sources and by what procedures. Thus a research design is a plan for the collection and analysis of data. This study is designed to the study on loan and advances of commercial banks with reference to Nepal Investment Bank and Nabil Bank. A descriptive and analytical survey is done. The justification for the choice of these methods is preferred because it includes reliable data and information covering a long time and avoids numerous complex variables.

The research covers the major commercial banks in Nepal, particularly in their practices of Lending. The research has its basic objective to figure out the problem therein and provide them with some recommendation. The literature has been reviewed specially from the past thesis conducted on the same aspect of the Commercial Banks. The data for the research are of primary and secondary types.

### 3.2 Population and Sample

Total 26 Commercial Banks are operating as commercial banks, which are considered to be the population of the study. All the banks activities of loan and advances are not
possible to study so among 26 commercial banks, the two banks NIBL and NABIL have been selected as a sample under the study.

### 3.3 Nature and Sources of Data

The data presented in this study are primary and secondary nature. The questionnaire survey a sources of primary data and the annual reports of the concerned banks are the major sources of the secondary data for the study. This study mainly based on secondary data but partially primary data are also been composed. Primary data are collected through questionnaires and personal interviewing individual who are concerned with Nepal Investment Bank Ltd. and Nabil Bank Ltd. Secondary data are collected from information available through NRB, annual reports of NIBL and Nabil Bank and journals, articles published data and different websites. However, besides the annual reports of the subjected banks the following sources of data are used in the respective corner of the study:

- Publication from Nepal Rastra Bank.
- Various publication dealing in the subject matter of the study.
- Various Articles published in the News Papers.
- Information provided by concerned banks.
- Various websites relating to topic.

This study mainly based on secondary data but partially primary data are also been composed. Primary data are collected through questionnaires and personal interviewing individual who are concerned with Nepal Investment Bank Ltd. and Nabil Bank Ltd. Secondary data are collected from information available through NRB, annual reports of NIBL and Nabil Bank and journals, articles published data and different websites.

### 3.4 Analysis of Data

The data obtain form the different sources are in raw from. The raw data is processed and converted into the required form. For this study, required data are taken from the secondary sources and presented in this study. For presentation, different tables and figure are used. Besides primary data collected for sources, are also presented whenever
required. Computation has bee done with the help of scientific calculator and computer software program.

### 3.4.1 Financial Tools

## Ratio Analysis

"The relationship between two accounting figure, expressed mathematically, is known as financial ratio (Pandey, 2000:89).

As far as it is concerned about the financial ratio, a ratio between two relevant figures, which provide a certain relation, and have negative or positive correlation between them, will only be studies. Since comparing two incomparable figures and their ratios give no idea and judgment on analysis and it remains as an absurd figure only. This section has been divided into following sub-sections.

## Loans and Advances to Total assets Ratio

This ratio measures the proportion of loan and advances to total assets. This shows the volume of loan and advances in assets with other headings.

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

## Loans and Advances to Total Deposit Ratio

This ratio measures the relation between loan and advances and deposits. The ratio is conducted with purpose to analyze how much of total deposit was invested in loan to generate income. All the banking business dwells around on deposit and loan.

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

## Loans and Advances to Loans and advances and Total Investment Ratio

Loan and advances and Investment are the major income generating activity of banks. Thus the ratio is conducted with purpose of analyzing the portion of loan and advances in major income generating fund. Between these loan and advances is area, which relatively earns high interest than investments.

Loan and Advances to Total Loans and Advances and Total Investment Ratio= Total Loan and Advances
Total Loans and Advances and Total Investment

## Income from Loan and Advances to Total Income Ratio

This ratio, Interest Income from Loans and Advances to Total Income, measures the volume of Interest from Loans and Advances in Total Income. Needless to say, income is the most vital part of any business.

Income from Loan and Advances to Total Income Ratio= Income from Loan and Advances

Total Income

## Non-performing Loan to Loan and Advances Ratio

This ratio measures the portion of non-performing loan out of Total loan and advances. This ratio helps to measure the position of subjected banks in terms of non-performing loan with comparison to international standard and national average.

Non-performing Loan to Loan and Advances Ratio $=\frac{\text { Non }- \text { performing Loan }}{\text { Loan and Advances }}$

## Loan Loss Provision to Loan and Advances Ratio

The ratio of Loan Loss Provision to Total Loans and Advances describes the quality of assets that the bank is holding.

Loan Loss Provision to Loan and Advances Ratio $=\frac{\text { Loan Loss Provision }}{\text { Loan and Advances }}$

## Loan Loss Provision to Total Income Ratio

The ratio of Loan Loss Provision to Total income describes the amount to be set apart from total income of the bank before calculating the net profit.

Loan Loss Provision to Total Income Ratio $=\frac{\text { Loan Loss Provision }}{\text { Total Income }}$

## Interest Suspense to Total Interest from Loan, Advances and Bill Purchase Ratio

This ratio of Interest Suspense to Total Interest from Loans and Advances measures the composition of due but uncollected interest in the total income from Loans and Advances. Here total interest form loan refers to summation of interest income from loan and interest suspense.

Interest Suspense to Total Interest from Loan, Advances and Bill Purchase Ratio= Interest Suspenses
Total Interest from Loan, Advances, and Bill Purchase

## Interest Suspense to Total Interest Income Ratio

The ratio of interest suspense to total interest income measures the portion of total interest income to be kept passive and deduct from profit.

Interest Suspense to Total Interest Income Ratio $=\frac{\text { Interest Suspenses }}{\text { Total Interest Income }}$

### 3.4.2 Statistical Tools

Statistical methods are the mathematical technique used to facilitate the analysis and interpretation of numerical data secured from groups of individuals or groups of observations from a single individual. The figures provide detailed description and tabulated as well as analyze data without subjectivity, but only objectivity. The results can be presented in brief and precise language and complex and complicated problems can be studied in very simple way. It becomes possible to convert abstract problems into,
figures and complex data in the form of tables. So, for this study following statistical tools are used:

## Standard Deviation

Standard deviation is the most popular and most useful measure of dispersion and gives uniform, correct and stable results. The chief characteristics of standard deviation are that it is based on mean, which gives uniform and dependable results. Furthermore, a standard deviation is always a positive number and is superior to the mean deviation, quartile deviation and range because it is used for further mathematical treatment.

Karl Pearson introduces the concept of Standard Deviation in 1823 and this is denoted by the small Greek letter $\sigma$ (read as sigma).
Standard deviation is calculated by using following formula.
Standard deviation $(\sigma)=\sqrt{\frac{\sum(X-\bar{X})^{2}}{n-1}}$
Where,
$\mathrm{X}=$ Variable of observation.
$\bar{X}=$ Mean of X variables.
$\mathrm{n}=$ Number of observation.

## Coefficient of Variation

It measure of dispersion that is useful in comparing the risk of assets with expected return. Coefficient of Variation (C.V.) shows the risk per unit of return and it provides a more meaningful basis for comparison when the expected returns on two alternatives are not same. The higher coefficient of variation measures the higher the risk. The percentage measure of coefficient of standard deviation is called Coefficient of Variation (C.V.). The Standard Deviation calculated in the above formulae gives an absolute measure of dispersion. Hence, where the mean value if the variables is not equal, it is not appropriate to compare two pairs of variables based on Standard Deviation only. The coefficient of variation measures the relative measures of dispersion, hence capable to compare two variables independently in terms of their variability.

Coefficient of Variation is calculated by using following formula.
$\mathrm{CV}=\frac{\delta}{\overline{\mathrm{X}}}$
Where,
$\sigma=$ Standard deviation of X variables.
$\bar{X}=$ Mean of X variables.

## Correlation (r)

Correlation may be defined as the degree of linear relationship existing between two or more variables of a population or a sample. It simply measures the changes between the phenomenon. The correlation coefficient between two variables describes the degree relationship between those two variables. It measures the increase or decrease in one variable due to increase or decrease in another variable. In this study correlation coefficient between various variables related with the topic is measured to assess their inter-relation.

Karl Pearson's simple correlation coefficient 'r' is calculated by using following formula:
$r=\frac{n \sum X Y-\sum X \sum Y}{\sqrt{n \sum X^{2}-\left(\sum X\right)^{2}} \sqrt{n \sum Y^{2}-\left(\sum Y\right)^{2}}}$

Where,
$\mathrm{n}=$ Total number of observations
X and $\mathrm{Y}=$ Two Variables.

## Coefficient of Determination ( $\mathbf{r}^{2}$ )

The coefficient of determination is a measure of the degree of liner association or correlation between two variable one of which happens to be independent and other being dependent variable. In other word $\mathrm{r}^{2}$ measures the percentage total variation in dependent variables. The coefficient of determination value can have ranging from zero to one. A value or one can occur only if the unexpected variation is zero which simply means that all the data point in the scatters diagram fall exactly on the regression line.

## Probable Error (PE)

Probable error can judge the degree of reliability of computed correlation. In this study, PE is calculated to find the extent of collection that can be explained by disbursement and to measure the consistency of correlation coefficient.

PE is calculated by using following formula:

Probable Error $(\mathrm{PE})=0.6745 \times \frac{1-r^{2}}{\sqrt{n}}$

Where,
$r=$ Correlation coefficient.
$\mathrm{n}=$ Number of observation.
If $\mathrm{r}<\mathrm{PE}$, then the correlation coefficient is insignificant.
If $\mathrm{r}>6 \mathrm{PE}$, then the correlation coefficient is significant.
If $\mathrm{PE}<\mathrm{r}<6 \mathrm{PE}$ nothing can be concluded.

## Time Series

Time series analysis enables us to forecast the future behavior of the variables under study, changes in the values of different variables and past behavior of a variable.

The least square method of trend analysis has been adopted to measure the trend behaviors of the subjected banks in the study as the method is widely used in practices. The straight line trend of a series of data is represented by the following formula.
$Y c=a+b X$

The above trend equation can be calculated using following two normal equations:
$\sum Y=n a+b \sum X$ $\qquad$
$\sum X Y=a \sum X+b \sum X^{2}$

Where,
$\mathrm{Y}=$ Variable
X= Time span

## CHAPTER - IV DATA PRESENTATIONS AND ANALYSIS

This chapter is related to the presentation and analysis of data calculated from various sources. It has main two parts. The first part of the chapter includes the presentation of and analysis of data while the second part includes the major findings of the study.

### 4.1 Analysis of Loan and Advance

Loan and advances is the major sources of income and at the same are most risky assets of the bank. The major function carried by banks for its existence is credit creation. As discussed above loan and advances is crucial aspect of banking business, which may lead to liquidation, if not maintain in optimal amount. In this part of study on loans and advances, absolute position of subjected banks will be analyzed. Bills purchased and discounted are also considered as loan and advances in the study.

Table 4.1
Total Loan and Advances
(Rs. in million)

| Fiscal Year | Nepal Investment Bank Ltd. |  | Nabil Bank Ltd. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount | \% Change | Amount | \% Change |  |
| $2002 / 2003$ | 5921.79 | - | 8113.68 | - |  |
| $2003 / 2004$ | 7338.57 | 23.92 | 8548.66 | 5.36 |  |
| $2004 / 2005$ | 10453.16 | 42.44 | 10946.74 | 28.05 |  |
| $2005 / 2006$ | 13178.15 | 26.07 | 13278.78 | 21.30 |  |
| $2006 / 2007$ | 17769.10 | 34.83 | 15903.02 | 19.76 |  |
| $2007 / 2008$ | 27529.30 | 54.92 | 21759.46 | 36.83 |  |
| Mean | $\mathbf{1 3 6 9 8 . 3 5}$ |  | $\mathbf{1 3 0 9 1 . 7 2}$ |  |  |
| S.D. | $\mathbf{7 9 9 4 . 8 7}$ |  | $\mathbf{5 1 5 9 . 2 5}$ |  |  |
| C.V. | $\mathbf{5 8 . 3 6}$ |  |  |  |  |

Source: Annual Report of Banks

Figure 4.1
Total Loan and Advances


Table 4.1 and Figure 4.1 shows the position of loan and advances made by the banks in absolute figure, which are in increasing trend, however the increasing trend was not regular. In fourth and fifth year loan and advances made by NIBL was increased in lower rate and then after in sixth year it is increase drastically at $54.92 \%$. The increment of loan and advances of NIBL was highest at $54.92 \%$ in 2007/2008, i.e. about 9760 million.

In case of NABIL during fourth and fifth year of loan and advances seem to be increased in lower rate. The increment of loan and advances in fourth and fifth year were in decreasing rate. And then after it is increase in sixth year at $36.83 \%$. The increment of loan and advances of NABIL was highest at $36.83 \%$ in $2007 / 2008$, i.e. about 5856 million.

The mean of loan and advances of NIBL is higher than NABIL. Standard deviation and C.V. of NIBL is higher than NABIL, this shows the inconsistency of NIBL in lending activity.

### 4.2 Analysis of Non-Performing Loan

Non-Performing Loan is consists of Loans and Advances except for good loans. It is that art of Loans and Advances that should be looked upon carefully for the timely collection of the installments. According to NRB directive, Sub-standard, doubtful and bad loans are categorized under Non-Performing Loans. Non-Performing Loans are, in fact, very crucial problem to banks. They not only require extra effort for collection of repayments but as according to the NRB directions, they also create large amount of Loan Loss Provision cutting down the profits and making the amount idle. In this topic we will discuss the non-performing loan in total and classified form.

Table 4.2
Non- Performing Loan
(Rs. in million)

| Fiscal Year | Nepal Investment Bank Ltd. |  | Nabil Bank Ltd. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Amount | \% Change | Amount | \% Change |
| $2002 / 2003$ | 117.09 | - | 449.63 | - |
| $2003 / 2004$ | 181.44 | 54.96 | 286.68 | -36.24 |
| $2004 / 2005$ | 280.87 | 54.80 | 144.50 | -49.60 |
| $2005 / 2006$ | 272.49 | -2.98 | 182.62 | 26.38 |
| $2006 / 2007$ | 421.97 | 54.86 | 178.29 | -2.37 |
| $2007 / 2008$ | 309.47 | -26.66 | 161.09 | -9.65 |
| Mean | $\mathbf{2 6 3 . 8 9}$ |  | $\mathbf{2 3 3 . 8 0}$ |  |
| S.D. | $\mathbf{1 0 5 . 6 2}$ |  | $\mathbf{1 1 6 . 9 1}$ |  |
| C.V. | $\mathbf{4 0 . 0 2}$ |  | $\mathbf{5 0 . 0 0}$ |  |
| Seren |  |  |  |  |

Figure: 4.2
Non- Performing Loan


Table 4.2 and Figure 4.2 show the amount of non-performing loan of the subjected banks. The amount of non-performing loan of NIBL was highest at 421.97 million in fifth. In first year, it reaches to 117.09 million, lowest during the period. Even the amount of loan is in increasing trend. NIBL manages to reduce the volume of non-performing loan in fourth year.

The amount of non-performing loan of NABIL was highest at 449.63 million in first year. In first year it was 449.63 million and in sixth year it reaches to 161.09 million, which is lowest amount of during the studied period.

On the basis of mean non-performing loan NABIL seems to be best with 233.80 million average non-performing loans. Between two, NIBL has highest amount of average nonperforming loans. In case of consistency NIBL seems good with lowest standard deviation and C.V.

## Table 4.3

## Classification of Non-Performing Loan

(Rs. in million)

| NIBL | NABIL |
| :---: | :---: |


| Year | 믄 ت ت 0 0 0 | $\begin{aligned} & \bar{y} \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \tilde{0} \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { W } \\ & \stackrel{y}{6} \end{aligned}$ | Year |  | E 0 0 0 | \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002/2003 | 22.03 | 3.59 | 91.47 | 117.09 | 2002/2003 | 76.31 | 279.12 | 94.20 | 449.63 |
| 2003/2004 | 10.84 | 63.88 | 106.72 | 181.44 | 2003/2004 | 22.14 | 65.55 | 198.99 | 286.68 |
| 2004/2005 | 0.82 | 74.94 | 205.11 | 280.87 | 2004/2005 | 22.07 | 1.93 | 120.50 | 144.50 |
| 2005/2006 | 44.24 | 0.50 | 227.76 | 272.50 | 2005/2006 | 62.67 | 29.56 | 90.39 | 182.62 |
| 2006/2007 | 96.89 | 86.05 | 239.03 | 421.97 | 2006/2007 | 119.7 | 14.47 | 44.12 | 178.29 |
| 2007/2008 | 61.74 | 20.72 | 227.01 | 309.47 | 2007/2008 | 66.22 | 42.58 | 52.29 | 161.09 |

Source: Annual Report of Banks

Table 4.3 shows the classified form of non-performing loan of subjected banks for the studied period; In case of NIBL, the amount of sub-standard loan is highest at 96.89 million in fifth year with increasing trend. And in third year it is lowest at 0.82 million. The amount of doubtful loan is drastically increased to around 86.05 million in fifth year from lowest point of 0.50 million of fourth year. The amount of loss loan is in increasing trend up to fifth year and sixth year it is decrease at 227.01 million from 239.03 million of fifth year. In the beginning year it is 91.47 million and in the fifth year it is increased at 239.03 million highest point of studied period.

The sub-standard loan of NABIL is highest at 119.70 million in fifth years and lowest at 22.07 million in third year. Amount of doubtful loan is ups and downs throughout the period, in first year it is highest at 279.12 million, in third year lowest at 1.93 million and in sixth year increased at 42.58 million. The amount of loss loan is also ups and downs trend. In the beginning year it is 94.20 million and in the fifth year it is decreased at 44.12 million lowest amounts of studied period but again it is increase in sixth year at 52.29 million.

### 4.3 Analysis of Loan Loss Provision

The more the Loan Loss Provision, it suggests two definite things, more of total loan and or more of bad loan. Since, according to the NRB directives, $1 \%$ provision is to be provided for all good loans too, it does acquire a huge portion of the total Loan Loss

Provision. Thus, just by looking at mere Loan Loss Provision it cannot be said if the company has all good loans or voluminous bad loans, so here we discuss loan loss provision in detail, i.e. loan loss provision for good loan and loan loss provision for nonperforming loan.

Table 4.4
Loan Loss Provision
(In million)

| Year | NIBL |  | NABIL |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Loan Loss provision | \% Change | Loan Loss Provision | \% Change |
| $2002 / 2003$ | 149.65 | - | 357.73 | - |
| $2003 / 2004$ | 208.44 | 39.28 | 358.66 | 0.26 |
| $2004 / 2005$ | 327.11 | 56.93 | 360.57 | 0.53 |
| $2005 / 2006$ | 401.94 | 22.88 | 356.24 | -1.20 |
| $2006 / 2007$ | 482.67 | 20.09 | 357.24 | 0.28 |
| $2007 / 2008$ | 532.65 | 10.35 | 394.41 | 10.40 |
| Mean | 350.41 |  | 364.14 |  |
| S.D. | 151.24 |  | 14.90 |  |
| C.V. | 43.16 |  | 4.09 |  |

Source: Annual Report of Banks

## Figure 4.3

Loan Loss Provision


Table 4.4 and Figure 4.3 show the position of loan loss provision and percentage change during the studied period of the subjected banks. The amount of loan loss provision of NIBL is in increasing trend. The amount of loan loss provision of NIBL is at 149.65 million in first year, 208.44 million, 327.11 million, 401.94 million, 482.67 million, 532.65 million respectively in following year.

In case of NABIL, it is constant. Not more fluctuation is seemed first year to fifth year but in sixth year it is increase drastically. In first year it is 357.73 million and it becomes 357.24 million in fifth year and it jumped up at 394.41 million in sixth year.

The mean loan loss provision of NIBL is lowest at 350.41 million while that of NABIL 364.14 million. NABIL seems to be consistent in case of loan loss provision with $14.90 \%$ standard deviation, and the C.V. of NABIL is also lowest at $4.09 \%$.

Table 4.5
Classification of Loan Loss Provision
Rs．In million

| NIBL |  |  |  |  |  | NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | \％ | $\begin{aligned} & \text { Dun } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & \end{aligned}$ |  | 亏 0 0 0 | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\underset{\sim}{\sim}$ | $\begin{gathered} \text { D⿹\zh26灬 } \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \end{gathered}$ |  | $\Xi$ 0 0 0 | $\stackrel{0}{0}$ |
| 2002／2003 | 57.21 | 0 | 2.49 | 0.46 | 89.49 | 122.59 | 0 | 18.32 | 137 | 80.20 |
| 2003／2004 | 70.83 | 0 | 2.73 | 29.9 | 104.99 | 127.73 | 0 | 5.14 | 32.4 | 193.41 |
| 2004／2005 | 101.06 | 0 | 0.21 | 37.6 | 188.28 | 235.35 | 0 | 6.86 | 1.42 | 116.94 |
| 2005／2006 | 128.76 | 36.38 | 11.06 | 0.25 | 225.49 | 130.34 | 83.96 | 42.57 | 13.9 | 85.47 |
| 2006／2007 | 173.50 | 4.7 | 24.57 | 43.08 | 236.82 | 175.50 | 79.84 | 56.64 | 7.12 | 38.14 |
| 2007／2008 | 274.45 | 5.36 | 15.43 | 10.40 | 227.01 | 291.71 | 3.03 | 32.31 | 21.27 | 46.09 |

Source：Annual Report of Banks

Table 4.5 shows the classified form of loan loss provision．The pass loan loss provision of NIBL is in increasing trend．The restructured loan is calculated only form fourth year， which is decreased at 4.70 million in fifth year from 36.38 million of fourth year and again it is increased at 5.36 million in sixth year．Substandard loan loss provision of NIBL in $2006 / 2007$ is highest at 24.57 million which is increased from 11.06 million of fourth year． The provision for doubtful loan was 0.46 million in 2002／2003，in following two years it increase drastically and reaches to highest point of 37.60 million，then after it decline in fourth year at 0.25 million and after it is up at 43.10 million in fifth year and it is falls 10.40 million in sixth year．The provision for loss loan in 2002／2003 is 89.49 million but very next year it reaches to 104.99 million and in fifth year it is 236.82 million highest for the period and last year it is decreased at 227.01 million．

The pass loan loss provision of NABIL is in fluctuation trend．The restructured loan is calculated only form fourth year，which is decreased at 79.84 million in fifth year from 83.96 million of fourth year and again it is decrease at 3.03 million in sixth year which is last year of the studied period．Substandard loan loss provision of NABIL is lowest at 5.14
million in 2003/2004 and highest at 56.64 million in 2006/2007. The provision for doubtful loan was highest at 137 million in 2002/2003 and lowest at 1.42 million in 2004/2005. The provision for loss loan in 2002/2003 is 80.20 million but very next year it reaches to 193.41 million which is highest amount of studied period and in the following year it is in decreasing trend. It increase in 2007/2008 and it is reaches to 46.09 million from 38.14 million of fifth year.

### 4.4 Analysis of Interest Suspense

Interest Suspense refers to that portion of interest, which is due but not collected. NRB directives do not allow showing due unpaid interest as income. Interest suspense is the reserve or provision kept for interest could not be collected in stipulated time. Interest suspense directly affects the profit of the bank. Thus, increase in this Interest Suspense decreases the profit of the company.

## Table 4.6

### 1.1 Interest Suspense

1.2 (Rs. In
million)

| Year | NIBL |  | NABIL |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Interest Suspense | \% Change | Interest Suspense | \% Change |
| $2002 / 2003$ | 48.21 | - | 100.68 | - |
| $2003 / 2004$ | 30.74 | -36.24 | 112.45 | 11.69 |
| $2004 / 2005$ | 38.38 | 24.85 | 122.31 | 8.77 |
| $2005 / 2006$ | 77.94 | 103.07 | 109.67 | -10.33 |
| $2006 / 2007$ | 90.44 | 16.04 | 112.19 | 2.3 |
| $2007 / 2008$ | 106.68 | 17.96 | 128.04 | 14.13 |
| Mean | 65.40 |  | 114.22 |  |
| S.D. | 30.71 |  | 9.67 |  |
| C.V. | 46.96 |  | 8.47 |  |

Source: Annual Report of Banks

## Figure 4.4

Interest Suspense


Table 4.6 and Figure 4.4 show the amount of interest suspense of subjected banks for the studied period and percentage change. The interest suspense of NIBL in 2003-2004 decreases by $36.24 \%$ than preceding year and reached to 30.74 million, lowest for the period, then after from third year the interest suspense was in increasing trend, and in fourth year it increases by $103.07 \%$ and reached to 77.94 million, which is highest percent for the period.

The interest suspense of NABIL in 2002/2003 was 100.68 million, in next year it was increased by $11.69 \%$ and reached to 112.45 million. In 2005/2006 interest suspense of NABIL was 109.67 million which is decrease by $10.33 \%$ from the previous year. In sixth year it reaches at 128.04 million which is increase by $14.13 \%$ from previous year.

The mean of interest suspense of two subjected banks are 65.40 million, and 114.22 million respectively, this shows the NIBL is little bit more aggressive than NABIL.

### 4.5 Analysis of Financial Indicators

Loans and advances is that important aspect of any bank, which if not kept in track while performing the functions, can lead to very critical situation. This, in fact, shows the situation of bank terms of investments in loans and advances. Whether the bank is lending in accordance with the deposits it is collecting and the investments made by the shareholders or not should be analyzed regularly. Any idle deposit is loss to the bank. Here, under this topic, an attempt is made to analyze the situation of loans and advances of the banks under study in relative terms.

### 4.5.1 Loans and Advances to Total Assets Ratio

This ratio measures the proportion of loan and advances to total assets. This shows the volume of loan and advances in assets with other headings. As the loan and advances is the income generating factor of the bank, large portion of assets as loan and advances will be profitable but the risk factor should also be considered

Table 4.7
Loans and Advances to Total Assets Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 65.69 | 48.99 |
| $2003 / 2004$ | 55.36 | 51.05 |
| $2004 / 2005$ | 64.23 | 63.69 |
| $2005 / 2006$ | 61.78 | 59.47 |
| $2006 / 2007$ | 64.40 | 58.35 |
| $2007 / 2008$ | 70.82 | 58.60 |
| Mean | 63.72 | 56.69 |

Source: Annual Report of Banks

## Figure 4.5

Loans and Advances to Total Assets Ratio


Table 4.7 and Figure 4.5 shows, the portion of loan and advances in total assets of NIBL are fluctuating each year. In second year it decreases to $55.36 \%$ from $65.69 \%$ in first year, third year it increases and reaches to $64.23 \%$, in fourth year it decreases and reaches to $61.78 \%$, in fifth year increase and reaches to $64.40 \%$ and again it increases and reaches to $70.82 \%$ in sixth year.

In case of NABIL, in the first year of studied period the ratio is at lower level at $48.99 \%$ and in second year it increases to $51.05 \%$, then after it grows again steadily in third year to 63.69 , in fourth year in decreases to $59.47 \%$, in fifth year it decreases at $58.35 \%$ and last year it reaches to $58.60 \%$.

The mean percentage of loan and advances in total assets of two subjected banks are $63.72 \%$, and $56.69 \%$ respectively, this shows the NIBL is little bit more aggressive than NABIL.

### 4.5.4 Loans and Advances to Total Deposit Ratio

This ratio measures the relation between loan and advances and deposits. The ratio is conducted with purpose to analyze how much of total deposit was invested in loan to generate income. All the banking business dwells around on deposit and loan. The main source of income is interest from loan and major expenses is interest to deposits, so the
optimal proportion between them is must for significant amount of profit. Loan and Advances to Total Deposits ratio indicate the firm's fund mobilizing power in gross. Total Deposits collected, against giving interest to the customers, is the total amount available for investments. Loans and Advances are the major areas where the companies can mobilize the funds with some returns. Any idle deposits mean loss, thus, this ratio measures how well the deposits have been mobilized to generate income for paying interest to the deposits and also to make profit.

Table 4.8
Loans and Advances to Total Deposit Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 74.74 | 60.34 |
| $2003 / 2004$ | 63.68 | 60.55 |
| $2004 / 2005$ | 73.33 | 75.05 |
| $2005 / 2006$ | 69.63 | 68.63 |
| $2006 / 2007$ | 72.56 | 68.13 |
| $2007 / 2008$ | 79.91 | 68.18 |
| Mean | 72.31 | 66.81 |

Source: Annual Report of Banks
Figure 4.6
Loans and Advances to Total Deposit Ratio


Table 4.8 and Figure 4.6 show the ratio of loan and advances to total deposit. In case of NIBL, the ratio seems to be fluctuating each year, as it was in previous ratio, this may be due to irregular growth in loan and deposit. In first year $74.74 \%$ of total deposit was invested in loan, which then decreases to $63.68 \%$ in second year, lowest for the period. Then it increases in third year and reaches $73.33 \%$, in fourth it is again decrease in
69.63\% and in fifth year it increase in $72.56 \%$ and in last year it increase in $79.91 \%$ which is highest percentage of the studied period.

While the loan to deposit ratio of NABIL, the ratio seems to be fluctuating also. In first year $60.34 \%$ of total deposit was invested in loan, which then slightly increases to $60.55 \%$ in second year. Then it increases in third year and reaches $75.05 \%$, in fourth it decrease in $68.63 \%$, in fifth year it slightly decreases in $68.13 \%$ and in sixth year it is slightly increase in $68.18 \%$.

The mean lending percentage out of total deposit of two subjected banks are $72.31 \%$, and $66.81 \%$ respectively, this shows that NIBL has followed the statement of no risk gain.

### 4.5.5 Loans and Advances to Loan and Advances and Total Investment Ratio

Loan and advances and Investment are the major income generating activity of banks. Thus the ratio is conducted with purpose of analyzing the portion of loan and advances in major income generating fund. Between these loan and advances is area, which relatively earns high interest than investments. So, this ratio is conducted to measure how much of total major income generating fund is loan and advances, or we can say this ratio reflects the proportion of high interest earning fund in total income generating fund. Loan and advances is the high interest earning assets for the banks, side by it is also riskier one as bad debt losses may be born. So, investing all the funds only on loans and advances for high interest is not a wise job. Thus, optimal proportion is to be maintained between loan and advances and investment.

Table 4.9
Loans and Advances to Loan and Advances and Investment Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 77.64 | 57.36 |
| $2003 / 2004$ | 65.52 | 59.43 |
| $2004 / 2005$ | 72.66 | 71.95 |
| $2005 / 2006$ | 70.17 | 68.25 |
| $2006 / 2007$ | 73.20 | 64.00 |


| $2007 / 2008$ | 80.02 | 68.64 |
| :---: | :--- | :--- |
| Mean | 73.20 | 64.94 |

Source: Annual Report of Banks

## Figure 4.7

## Loans and Advances to Loan and Advances and Investment Ratio



Table 4.9 and Figure 4.7 show the ratio of loan to loan and investment. Regarding loan to loan and investment, both banks have irregular ratio. In first year, out of major income generating fund of NIBL $77.64 \%$ is loan and advances. This ratio decreases to $65.52 \%$ in second year, lowest for the period. Then after it increases in following two years and reaches to $70.17 \%$ in fourth year and to $73.20 \%$ in fifth year than after it is increases to $80.02 \%$ in sixth year which is highest of the studied period.

In case of NABIL also the ratio seems irregular, out of major income generating fund of NABIL 57.36\% loan and advances in first year. This ratio decreases to $59.43 \%$ in second year, lowest for the period. Then after, it increases to $71.95 \%$ in third year is highest for the studied period. In fourth year it decreases to $68.25 \%$, it decreases to $64 \%$ in fifth year and again it is increased to $68.64 \%$ in sixth year.

The average portion of loan and advances in major income generating fund of three subjected banks are $73.20 \%, 64.94 \%$ respectively. From mean ratios it is clear that NABIL has adopted the low risky investment policy and this ratio makes clearer.

### 4.6 Assessing the Lending Capacity

Even the loan and advances is the major income generating activity, banks cannot provide loan and advances as it like to anyone in any volume, it should be capable to lend loans as per directed by the Nepal Rastra Bank. The lending capacity of banks could be measure in term of single borrower limit, priority sector lending, sector wise lending limit etc. Among these other things are depended on the volume of loan and advances but the single borrower limit is depended solely on the volume of capital it has or in other words single borrower limit is purely a capability of the bank management. Thus here the calculation of single borrower obligor limit is been calculated.

### 4.6.1 Calculation of Single Borrower's Obligor Limit

Lending is one of the two major functions carried out of a bank. To sustain in the market and to earn maximum profit, bank has to lend money as much as they can. But the disbursement of loan and advances must be as per the directives issued by Nepal Rastra Bank, and one of the directives on lending function of bank is single borrower obligor limit.

Here single borrower refers to:
i. Member of single family,
ii. If a company holds more than $25 \%$ share of another company, then those both companies.
iii. If the members of family hold more than $25 \%$ share of different companies then those companies.
iv. Firm, company or a member of associated group.
v. If a person or a company has cross-guaranteed another person or company, then those persons or companies. A bank can disburse $25 \%$ of its core capital in case of fund base lending or on-balance sheet transactions and $50 \%$ of its core capital for non-fund base lending or off-balance sheet transaction.

Table 4.10
Calculation of Single Borrower Obligor Limit
(Rs in million)

| Year | NIBL |  | NABIL |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Single borrower limit | \% Change | Single borrower limit | \% Change |
| $2002 / 2003$ | 155.36 | - | 319.21 | - |
| $2003 / 2004$ | 177.65 | 14.35 | 359.86 | 12.73 |
| $2004 / 2005$ | 290.37 | 63.45 | 402.63 | 11.88 |
| $2005 / 2006$ | 348.32 | 19.96 | 457.70 | 13.68 |
| $2006 / 2007$ | 463.05 | 32.94 | 498.21 | 8.85 |
| $2007 / 2008$ | 664.73 | 43.55 | 590.90 | 18.60 |
| Mean | 349.91 |  | 438.09 |  |
| S.D. | 191.30 |  | 98.85 |  |
| C.V. | 54.67 |  | 22.56 |  |

## Source: Annual Report of Banks

Figure 4.8
Single Borrower Obligor Limit


From Table 4.10 and Figure 4.8, it was clear that the lending capacity of both banks for fund based loan and advances are in increasing trend. NIBL had 155.36 million of single borrower obligor limit in 2002/2003; this means in following year it can lend up to
155.36 million to a single client. Likewise NIBL has maximum of 664.73 million as single obligor limit in last year.

Similarly NABIL had 319.21 million as single borrower obligor limit in first year and has maximum of 590.90 million in last year of studied period.

The average single obligor limit of NABIL is highest at 438.09 million, the variation in limit is lowest of NABIL as the standard deviation is 98.85 and C.V. is $22.56 \%$. The single borrower obligor limit for non-fund based activity will be double of fund-based limit.

### 4.7 Analyzing Contribution of Loan and Advances in Total Income

It is well known fact that the loan and advances is the major income generating activity of a bank. To pay interest on deposit, to pay salary, to maximize the profit and to pay dividend bank should earn income and the lending is only activity that can meet these things. Thus in this part of the analysis, discussion will be made on the contribution of loan and advances in the total income of a bank. This part of analysis will justify the importance of the loan and advances in a banking business. Following ratios will be measured to analyze the contribution of loan and advances in total income.

### 4.7.1 Income from Loan and Advances to Total Income Ratio

This ratio, Interest Income from Loans and Advances to Total Income, measures the volume of Interest from Loans and Advances in Total Income. Needless to say, income is the most vital part of any business. Besides, in the institutions dealing in lending business Interest income occupies a greater portion of the total Income. This ratio also helps to measure performance of the banks on the grounds of its lending

Table 4.11
Income from Loan and Advances to Total Income Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 73.14 | 54.79 |
| $2003 / 2004$ | 72.70 | 53.80 |


| $2004 / 2005$ | 67.23 | 55.47 |
| :---: | :--- | :--- |
| $2005 / 2006$ | 66.07 | 56.80 |
| $2006 / 2007$ | 65.16 | 56.10 |
| $2007 / 2008$ | 69.38 | 60.01 |
| Mean | 68.95 | 56.16 |

Source: Annual Report of Banks
Figure 4.9
Income from Loan and Advances to Total Income Ratio


Table 4.11 and Figure 4.9 show the portion of income from loan and advances in total income of the banks. The purpose of measuring this ratio is to analyze the contribution of loan and advances in total income of the banks. The portion of income of loan and advances of NIBL was in decreasing trend up to fifth year and it was increase at sixth year. It was $73.14 \%$ in first year, $72.70 \%$ second year, $67.23 \%$ in third year, $66.07 \%$ in fourth year, $65.16 \%$ in fifth year and 69.38 in sixth year.

In case of NABIL the portion of income of loan and advances was $54.79 \%$ in first year, which was slightly decrease to $53.80 \%$ in second year of the study. Than after it was
$55.47 \%$ in third year, $56.80 \%$ in fourth year, $56.10 \%$ in fifth year and $60.01 \%$ in sixth year of the study.

The average contribution of loan and advances in total income of all subjected banks are $68.95 \%$ and $56.16 \%$ respectively, this shows the high degree of lending activity of NIBL than NABIL.

### 4.8 Assessing the Situation of Non- Performing Loan

Non-performing loan is the crucial problem that banks are facing these days. Increased amount of non-performing loans are making banks weaker and has reduced their capacity. In this topic discussion will be made on how much of the total loan and advances of subjected banks are non-performing, how much of amount they have in loan loss provision and interest suspense account. In this topic non-performing loan of banks will measured in relative term.

### 4.8.1 Non-Performing Loan to Loan and Advances Ratio

This ratio measures the portion of non-performing loan out of Total loan and advances. This ratio helps to measure the position of subjected banks in terms of non-performing loan with comparison to international standard and national average. The lower ratio signifies the good quality of assets in the total volume of Loans and Advances. Similarly, the higher ratio signifies relatively more risky assets. Higher the portion of nonperforming loan in total loan and advances, the provision for it and interest suspense will be higher and the risk of unrecoverable loan will also be higher, this will ultimately challenge the existence.

Table 4.12

## Non- performing Loan to Loan and Advances Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 1.98 | 5.54 |
| $2003 / 2004$ | 2.47 | 3.35 |
| $2004 / 2005$ | 2.69 | 1.32 |


| $2005 / 2006$ | 2.07 | 1.38 |
| :---: | :---: | :---: |
| $2006 / 2007$ | 2.37 | 1.12 |
| $2007 / 2008$ | 1.12 | 0.74 |
| Mean | 2.12 | 2.24 |

Source: Annual Report of Banks

Figure 4.10
Non- performing Loan to Loan and Advances Ratio


Table 4.12 and Figure 4.10 show the portion of non-performing loan out of total loan and advances of the subjected banks during the studied period. The ratio of NIBL in first and second year there is different performance. In first year it has $1.98 \%$, it is increases to $2.47 \%$ in second year, $2.69 \%$ in third year, $2.07 \%$ in fourth year, $2.37 \%$ in fifth year, and $1.12 \%$ in last year of studied period.

The ratio of NABIL is in decreasing trend for first three years as it reaches the $1.32 \%$ in third year; highest for the period, from $5.54 \%$ in first year. On later half of the period the ratio is in decreasing trend and in fifth year it falls down to $1.12 \%$ and again it falls down to $0.74 \%$ in last year which is lowest for the period.

The average percentage of non-performing loan in total loan of the subjected banks is $2.12 \%$ and $2.24 \%$ respectively. This shows that NIBL has lent good loans as it has less amount of non-performing loan out of total loan and advances.

Table 4.13
Composition of Non-Performing Loan in Proportion

| Year | NIBL (Proportion \%) |  |  | NABIL (Proportion \%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \bar{y} \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ |  | $\overline{3}$ 0 0 0 | 0 |
| 2002/2003 | 18.81 | 3.07 | 78.12 | 16.97 | 62.08 | 20.95 |
| 2003/2004 | 5.97 | 35.21 | 58.82 | 7.72 | 22.87 | 69.41 |
| 2004/2005 | 0.29 | 26.68 | 73.03 | 15.27 | 1.34 | 83.39 |
| 2005/2006 | 16.23 | 0.18 | 83.58 | 34.31 | 16.19 | 49.50 |
| 2006/2007 | 22.96 | 20.39 | 56.65 | 67.14 | 8.12 | 24.75 |
| 2007/2008 | 19.95 | 6.70 | 73.35 | 41.11 | 26.43 | 32.46 |
| Mean | 14.04 | 15.37 | 70.59 | 30.42 | 22.84 | 46.74 |

Source: Annual Report of Banks

Table 4.13 shows the ratio of various class of non-performing loan to total nonperforming loan. The portion of substandard loan of NIBL is up in first year $18.81 \%$ and falls down in second year of period to $5.97 \%$, again falls down to $0.29 \%$ which is lowest proportion of studied period, than after it is increases to $16.23 \%$ in third year and it again increases to $22.96 \%$ which is highest proportion of studied period and it is decrease to $19.95 \%$ in sixth year. The portion of doubtful loan is highest at $35.21 \%$ in second year and on following year it is drastically decreased to $26.68 \%$ in third year and again it is a decrease to $0.18 \%$ lowest proportion for the period in fourth year, it is increases to $20.39 \%$ in fifth year and it is decrease to $6.70 \%$ in sixth year. There is huge loss loan in fourth year $83.58 \%$ but very next year it reaches to $56.65 \%$ lowest for the period and it again increase to $73.35 \%$ in last year of studied period.

The portion of substandard loan of NABIL is up in first year $16.97 \%$ and falls down in second year of period to $7.72 \%$, it reaches up to $15.27 \%$ in third year and it again increases to $34.31 \%$ in fourth year and it again increases to $67.14 \%$ in fifth year which is highest proportion of studied period and than after it is decreases to $41.11 \%$ in last year.

The portion of doubtful loan is highest at $62.08 \%$ in first year and on following year it is drastically decreased to $22.87 \%$ in second year and again it is a decrease to $1.34 \%$ lowest proportion for the period in third year, it is increases to $16.19 \%$ in fourth year, it decreases to $8.12 \%$ in fifth year and again it is increases to $26.43 \%$ in sixth year. There is huge loss loan in third year $83.39 \%$ but very next year it reaches to $49.50 \%$ in fourth year, it is decreases to $24.75 \%$ in fifth year and in last year it is reaches to $32.46 \%$.

The average portion of substandard loan of subjected banks is $14.04 \%$ and $30.42 \%$ respectively. The average portion of doubtful loan in total loan of subjected banks is $15.37 \%$ and $22.84 \%$ respectively. Likewise average portion of loss loan of subjected banks is $70.59 \%$ and $46.74 \%$ respectively. For the good performance bank should have large portion of substandard loan and small portion of loss loan out of total loan. In case of NIBL it has high proportion of loss loan than NABIL.

### 4.8.2 Loan Loss Provision to Loan and Advances Ratio

The ratio of Loan Loss Provision to Total Loans and Advances describes the quality of assets that the bank is holding. The lower ratio signifies the good quality of assets in the total volume of Loans and Advances. Similarly, the higher ratio signifies relatively more risky assets.

Table 4.14
Loan Loss Provision to Loan and Advances Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 2.53 | 4.41 |
| $2003 / 2004$ | 2.84 | 4.20 |
| $2004 / 2005$ | 3.13 | 3.29 |
| $2005 / 2006$ | 3.05 | 2.68 |
| $2006 / 2007$ | 2.72 | 2.25 |
| $2007 / 2008$ | 1.93 | 1.81 |
| Mean | 2.70 | 3.11 |

Source: Annual Report of Banks

## Figure 4.11

Loan Loss Provision to Loan and Advances Ratio


Table 4.14 and Figure 4.11 show the relation of loan loss provision and loan advances of the subjected banks during the studied period. In case of NIBL, in first three years the ratio is in increasing trend and is highest in third year at $3.13 \%$, but in following year it decreases and in fourth year it is $3.05 \%$, it again decreases to $2.72 \%$, and again it decreases to $1.93 \%$ lowest for the period.

In case of NABIL the ratio is in decreasing trend through out the period, in first year it is $4.41 \%$ highest for the period and is lowest on last year at $1.81 \%$.

The mean percentage of loan loss provision out of loan and advances of the subjected banks are $2.70 \%$ and $3.11 \%$ respectively. This shows that NIBL has to set apart fewer amounts as provision regarding the total loan volume.

Table 4.15
Composition of Loan Loss Provision

| Year | NIBL (Proportion \%) |  |  |  |  | NABIL (Proportion \%) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\sim}{\approx}$ | $\begin{aligned} & \text { 己⿹\zh26㇒ } \\ & \text { O} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  | \# 0 0 0 | $\begin{aligned} & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \tilde{\omega} \\ & \stackrel{\rightharpoonup}{\infty} \end{aligned}$ |  |  | \# 0 0 0 | -8 |
| 2002/03 | 38.23 | 0 | 1.66 | 0.31 | 59.80 | 34.27 | 0 | 5.12 | 38.19 | 22.42 |
| 2003/04 | 33.98 | 0 | 1.31 | 14.34 | 50.37 | 35.61 | 0 | 1.43 | 9.03 | 53.93 |
| 2004/05 | 30.89 | 0 | 0.07 | 11.48 | 57.56 | 65.27 | 0 | 1.90 | 0.39 | 32.44 |
| 2005/06 | 32.04 | 9.05 | 2.75 | 0.06 | 56.10 | 36.59 | 23.57 | 11.95 | 3.90 | 23.99 |
| 2006/07 | 35.95 | 0.97 | 5.09 | 8.93 | 49.06 | 49.13 | 22.35 | 15.85 | 1.99 | 10.68 |
| 2007/08 | 51.53 | 1 | 2.9 | 1.95 | 42.62 | 73.96 | 0.77 | 8.19 | 5.39 | 11.69 |
| Mean | 37.10 | 1.84 | 2.30 | 6.18 | 52.59 | 49.14 | 7.78 | 7.41 | 9.82 | 25.86 |

Source: Annual Report of Banks

Table 4.15 shows the composition of loan loss provision in total loan loss provision of the subjected banks. In case of NIBL, in third $30.89 \%$ pass loan lowest of studied period and highest $51.53 \%$ in last year of studied period. Restructured loan is not considered for study due to unavailability of data of full period. There is lowest substandard loan $0.07 \%$ in third year and $5.09 \%$ highest proportion in fifth year. In second year the portion of doubtful loan provision is highest at $14.34 \%$ and in fourth year the doubt loan provision portion $0.06 \%$ is lowest. Loss loan provision is highest in first year is $59.80 \%$ and lowest is $42.62 \%$ in sixth year of study.

In case of NABIL, in third year $73.96 \%$ highest pass loan of period and $34.27 \%$ lowest in first year. Restructured loan is not considered for study due to unavailability of data of full period. There is lowest substandard loan $1.43 \%$ in second year and $15.85 \%$ highest proportion in fifth year. In first year the portion of doubtful loan provision is highest at 38.19 \% and in third year the doubt loan provision portion $0.39 \%$ is lowest. Loss loan provision is highest in second year is $53.93 \%$ and lowest is $10.68 \%$ in fifth year of study.

The average composition of loan loss provision of NIBL shows the lowest portion of substandard loan provision, i.e. $2.30 \%$ and highest portion of loss loan provision, i.e. $52.59 \%$. Similarly the average composition of loan loss provision of NABIL shows the lowest portion of substandard loan provision is $7.41 \%$ and highest portion of pass loan provision at 49.14\%.

### 4.8.3 Loan Loss Provision to Total Income Ratio

The ratio of Loan Loss Provision to Total income descries the amount to be set apart from total income of the bank before calculating the net profit. NRB has directed to categorize its Loans and Advances into good, substandard, doubtful and loss loans and to make the provisions of $1 \%, 25 \%, 50 \%$ and $100 \%$ respectively as Loan Loss Provision, the purpose of issuing directive is to control the bank management from sharing profit and bonus even the loan provided from the deposit is not recovering at time. Loan Loss Provision, in fact, is the cushion against future contingency created by the default of the borrowers. The higher the ratio the performance of bank is questionable and lower the ratio the shareholder's will get benefit.

Table 4.16

## Loan Loss Provision to Total Income Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 25.89 | 25.06 |
| $2003 / 2004$ | 22.81 | 25.10 |
| $2004 / 2005$ | 28.55 | 23.87 |
| $2005 / 2006$ | 27.50 | 20.34 |
| $2006 / 2007$ | 24.14 | 17.07 |
| $2007 / 2008$ | 19.37 | 15.75 |
| Mean | 24.71 | 21.20 |

Source: Annual Report of Banks

## Figure 4.12

Loan Loss Provision to Total Income Ratio


Table 4.16 and Figure 4.12 show the relation of loan loss provision and total income of the subjected banks during the studied period. In case of NIBL, it is in fluctuated trend and is highest on third year at $28.55 \%$, but in following two years it decreases and in fifth year it is $24.14 \%$ and again it is decrease in sixth year to $19.37 \%$ lowest of the studied period.

In case of NABIL the ratio is in decreasing trend through out the period, in first year it is $25.06 \%$ which is slightly increase at $25.10 \%$ in second year and than after it is decrease regularly .In sixth year $15.75 \%$ is lowest for the period.

The mean percentage of loan loss provision out of total income of the subjected banks is $24.71 \%$ and $21.20 \%$ respectively. This shows that out of total income NABIL has to set apart lesser amount for provision in comparison.

### 4.8.4 Interest Suspense to Total Interest from Loan, Advances and Bill Purchase Ratio

This ratio of Interest Suspense to Total Interest from Loans and Advances measures the composition of due but uncollected interest in the total income from Loans and Advances. Here total interest form loan refers to summation of interest income from loan and interest suspense. The high degree of this ratio refers to the poor interest turnover and vice versa. Thus, this ratio also helps to analyze the capability of the bank in collecting the repayments of the Loans and Advances.

Table 4.17
Interest Suspense to Total Interest Income from Loan, Advances and Bill Purchase Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 11.40 | 12.87 |
| $2003 / 2004$ | 4.63 | 14.63 |
| $2004 / 2005$ | 4.98 | 14.60 |
| $2005 / 2006$ | 8.07 | 11.02 |
| $2006 / 2007$ | 6.94 | 9.55 |
| $2007 / 2008$ | 5.59 | 8.52 |
| Mean | 6.94 | 11.87 |

Source: Annual Report of Banks

Figure: 4.13

## Interest Suspense to Total Interest Income from Loan, Advances and Bill Purchase Ratio



Table 4.17 and Figure 4.13 show the portion of interest suspense in total interest from loan and advances. It shows that the NIBL has fluctuating ratio trend. In second year it decreases to $4.63 \%$, lowest during the period, from first year's $11.40 \%$. It is to $4.98 \%$ in third year, $8.07 \%$ in fourth year, $6.94 \%$ in fifth year and $5.59 \%$ in sixth year of the study.

The ratio of NABIL has also fluctuating trend. In first year of studied period, portion of interest suspense is $12.87 \%$. In second and third, it is increased to $14.63 \%$ and $14.60 \%$ respectively. In fourth year the portion of interest suspense of NABIL is at $11.02 \%$, in fifth year it is at $9.55 \%$, in last year it is at $8.52 \%$ lowest for the studied period.

The average interest suspense portions of the subjected banks are $6.94 \%$ and $11.87 \%$ respectively during the studied period. It shows NABIL has poor interest turnover.

### 4.8.5 Interest Suspense to Total Interest Income Ratio

The ratio of interest suspense to total interest income measures the portion of total interest income to be kept passive and deduct from profit. Here for the purpose of the study, summation of interest income from loan and advances, commission from bills purchased and discount, interest income from investment and interest suspense was considered as total interest. The high degree of this ratio refers to the poor performance
and is losing the opportunity of reinvestment. Thus, this ratio also helps to analyze the capability of the bank to turnover its interest income or the effect of interest suspense in total interest income of the bank.

Table 4.18
Interest Suspense to Total Interest Income Ratio

| Year | NIBL (\%) | NABIL (\%) |
| :---: | :---: | :---: |
| $2002 / 2003$ | 10.49 | 9.89 |
| $2003 / 2004$ | 4.20 | 11.23 |
| $2004 / 2005$ | 4.33 | 11.44 |
| $2005 / 2006$ | 6.65 | 8.37 |
| $2006 / 2007$ | 5.71 | 7.07 |
| $2007 / 2008$ | 4.86 | 6.47 |
| Mean | 6.04 | 9.08 |

Source: Annual Report of Banks

Figure 4.14
Interest Suspense to Total Interest Income Ratio


Table 4.18 and Figure 4.14 show the portion of interest suspense in total interest income. The purpose of the ratio is to evaluate the performance of bank in turnover of its interest income. The trend of ratio of NIBL has fluctuating trend of interest suspense in total interest income. It has highest in first year $10.49 \%$ during the period. In second year it is decreases to $4.20 \%$ lowest of the studied period, $4.33 \%$ in third year. In fourth year it is increases to $6.65 \%$, it decreases to $5.71 \%$ in fifth year and again it is decreases to $4.86 \%$ in last year of studied period.

In third year the portion of interest suspense in total interest of NABIL is highest at $11.44 \%$ and lowest to $6.47 \%$ in sixth year.

The average portions of interest suspense in total interest income of the subjected banks are $6.04 \%$ and $9.08 \%$ respectively during the studied period.

### 4.9 Statistical Analysis

Under this topic various statistical tools are calculated to evaluate and analyze the performance of the subjected banks. Study of all types of statistical tools is not done; only
those, which are important from the point of view of the loan and advances, are calculated. The important tools that are studied for this purpose are calculated according to objectives set:

### 4.9.1 Correlation Coefficient between Loan and Advances and Total Deposit

Correlation coefficient between deposit and loan and advances measure the degree of relation between these two variables. In this analysis, deposit is independent variable and loan and advances is dependent variable. The main objective of computing 'r' coefficient of correlation between these two variables is to justify whether deposits are significantly used as loan and advances in the proper way or not.

Table 4.19
Correlation between Loan and Advances and Deposit

| Banks | Correlation <br> coefficient (r) | $\mathbf{r}^{\mathbf{2}}$ | Probable <br> error | 6PE | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| NIBL | 0.9949 | 0.9898 | 0.0028015 | 0.01681 | Significant |
| NABIL | 0.9890 | 0.9781 | 0.0060246 | 0.03615 | Significant |

Source: Annual report of banks

Table 4.19 shows the correlation, probable error of the correlation between loan and advances and deposit of the subjected banks during the studied period. The calculation shows the high degree of positive relation between loan and advances and deposit. The correlation coefficient between loan and deposit of NIBL is 0.9949 and of NABIL is 0.9890 , i.e. almost 1 , this means loan and advances of both banks are increasing almost at the same ratio in which deposit is increasing.

The coefficient of determination $\left(\mathrm{r}^{2}\right)$ between loan and advances and deposit of the NIBL and NABIL are 0.9898 and 0.9781 respectively. Which means that the variation in independent variable (loan and advances) explains $98.98 \%$ of the variation is dependent variable (deposit) of NIBL and $97.81 \%$ of NABIL.

Only high degree of positive correlation and between variables is not sufficient, that relation must be reliable and significant as per probable error method. In this case, as the

6 times of probable error is less than correlation coefficient, the relation between loan and advances and deposit of both banks is highly significant.

### 4.9.2 Correlation between Loan and Advances and Non-performing Loan

Correlation coefficient between loan and advances and non-performing loan measures the degree of relation between the loan and advances and non-performing loan. The purpose of calculating this correlation coefficient is to justify whether the non-performing loan of the banks is moving as per loan and advances or not.

Table 4.20
Correlation between Loan and Advances and Non-Performing Loan

| Banks | Correlation <br> coefficient (r) | $\mathbf{r}^{\mathbf{2}}$ | Probable <br> error | 6PE | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| NIBL | 0.6822 | 0.4654 | 0.147210 | 0.88326 | Insignificant |
| NABIL | -0.6363 | 0.4049 | 0.16387 | 0.9832 | Insignificant |

Source: Annual Report of Banks

Table 4.20 shows correlation, probable error of correlation between loan and advances and non-performing loan of the subjected banks during the studied period. The calculation shows the moderate degree of positive relation between loan and advances and non-performing loan of NIBL is 0.6822 . But the correlation between loan and advances and non-performing loan of NABIL is negative value of $r$ is -0.6363 . It shows the negative relationship between the loan and advances and non-performing loan of NABIL.

The coefficient of determination ( $\mathrm{r}^{2}$ ) between loan and advances and non-performing loan of the NIBL is 0.4654 which means that the variation in independent variable (loan and advances) explains $46.54 \%$ of the variation in dependent variable (non-performing loan). Likewise, the value of $r^{2}$ of the NABIL is 0.4049 which means that the variation in independent variable (loan and advances) explains $40.49 \%$ of the variation in dependent variable (non-performing loan).

The relation between loan and advances and non-performing loan of NIBL banks is insignificant, as the 6 times of probable error is greater than correlation coefficient and the relation between loan and advances and non-performing loan of NABIL banks is insignificant, as the 6 times of probable error is greater than correlation coefficient.

### 4.9.3 Correlation between Loan and Advances and Loan Loss Provision

Correlation coefficient between loan and advances and loan loss provision measures the degree of relation between the loan and advances and loan loss provision. The purpose of calculating this correlation coefficient is to justify whether the loan loss provision kept by the banks is as per loan and advances or not.

Table 4.21
Correlation between Loan and Advances and Loan Loss Provision

| Banks | Correlation <br> Coefficient (r) | $\mathbf{r}^{\mathbf{2}}$ | Probable <br> error | 6PE | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| NIBL | 0.9216 | 0.8493 | 0.04148 | 0.2489 | Significant |
| NABIL | 0.7960 | 0.6336 | 0.1009 | 0.6053 | Significant |

Source: Annual Report of Banks

Table 4.21 shows correlation, probable error of correlation between loan and advances and loan loss provision of the subjected banks during the studied period. The correlation coefficient between loan and loan loss provision of the subjected banks is $0.9216,0.7960$. This means that loan loss provision of NIBL is increasing almost at the same ratio in which loan and advances is increasing.

The coefficient of determination $\left(r^{2}\right)$ between loan and advances and loan loss provision of the NIBL is 0.8493 which means that the variation in independent variable (loan and advances) explains $84.93 \%$ of the variation in dependent variable (loan loss provision). Likewise, the value of $r^{2}$ of the NABIL is 0.6336 which means that the variation in independent variable (loan and advances) explains $63.36 \%$ of the variation in dependent variable (loan loss provision).

Only high degree of positive correlation between variables is not sufficient, that relation must be reliable and significant as per probable error method. In the case of NIBL, as the 6 times of probable error is less than correlation coefficient, the relation between loan and advances and loan loss provision is significant. And in the case NABIL, as the 6 times of probable error is less than correlation coefficient, the relation between loan and advances and loan loss provision is also significant.

### 4.9.4 Correlation between Non-performing Loan and Loan Loss Provision

Correlation coefficient between non-performing and loan loss provision measures the degree of relation between the non-performing and loan loss provision. The purpose of calculating this correlation coefficient is to justify whether the loan loss provision kept by the banks is as per non-performing loan or not.

Table 4.22
Correlation between Non-performing Loan and Loan Loss Provision

| Banks | Correlation <br> coefficient (r) | $\mathbf{r}^{\mathbf{2}}$ | Probable <br> error | 6PE | Remarks |
| :--- | :---: | :---: | :---: | :---: | :--- |
| NIBL | 0.8819 | 0.7777 | 0.061200 | 0.3672 | Significant |
| NABIL | -0.3178 | 0.1010 | 0.24755 | 1.4853 | Insignificant |

Source: Annual Report of Banks

Table 4.22 shows correlation, probable error of correlation between non-performing loan and loan loss provision of the subjected banks during the studied period. The correlation coefficient between non-performing loan and loan loss provision of the subjected banks is $0.8819,-0.3178$. This means that loan loss provision of NIBL is increasing almost at the same ratio in which non-performing is increasing.

The coefficient of determination ( $\mathrm{r}^{2}$ ) between non-performing loan and loan loss provision of the NIBL is 0.7777 which means that the variation in independent variable (non-performing loan) explains $77.77 \%$ of the variation in dependent variable (loan loss provision). Likewise, the value of $r^{2}$ of the NABIL is 0.1010 which means that the
variation in independent variable (non-performing loan) explains $10.10 \%$ of the variation in dependent variable (loan loss provision).

Only high degree of positive correlation between variables is not sufficient, that relation must be reliable and significant as per probable error method. In the case of NIBL, as the 6 times of probable error is less than correlation coefficient, the relation between nonperforming loan and loan loss provision is significant. But in the case NABIL, as the 6 times of probable error is greater than correlation coefficient, the relation between nonperforming loan and loan loss provision is insignificant.

### 4.9.5 Correlation between Non-performing Loan and Interest Suspense

Correlation coefficient between non-performing and interest suspense measures the degree of relation between the non-performing and interest suspense. The purpose of calculating this correlation coefficient is to justify whether the interest suspense kept by the banks is as per non-performing loan or not.

Table 4.23
Correlation between Non-performing Loan and Interest Suspense

| Banks | Correlation <br> coefficient (r) | $\mathbf{r}^{\mathbf{2}}$ | Probable <br> error | 6PE | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: |
| NIBL | 0.6703 | 0.4493 | 0.1516 | 0.9098 | Insignificant |
| NABIL | -0.7778 | 0.6050 | 0.108776 | 0.65265 | Insignificant |

Source: Annual Report of Banks

Table 4.23 shows correlation, probable error of correlation between non-performing loan and interest suspense of the subjected banks during the studied period. The correlation coefficient between non-performing loan and interest suspense of the subjected banks is $0.6703,-0.7778$. This means that interest suspense of NIBL is increasing ratio in which non-performing is increasing.

The coefficient of determination ( $\mathrm{r}^{2}$ ) between non-performing loan and interest suspense of the NIBL is 0.4493 which means that the variation in independent variable (non-
performing loan) explains $44.93 \%$ of the variation in dependent variable (interest suspense). Likewise, the value of $\mathrm{r}^{2}$ of the NABIL is 0.6050 which means that the variation in independent variable (non-performing loan) explains $60.50 \%$ of the variation in dependent variable (interest suspense).

Only positive correlation between variables is not sufficient, that relation must be reliable and significant as per probable error method. In the case of NIBL, as the 6 times of probable error is greater than correlation coefficient, the relation between non-performing loan and interest suspense is insignificant. As well as in the case NABIL, as the 6 times of probable error is greater than correlation coefficient, the relation between nonperforming and loan loss provision is insignificant.

### 4.9.6 Correlation between Income from Loan and Advances and Net Profit

Correlation coefficient between income from loan and net profit measures the degree of relation between the income from loan and net profit. The purpose of calculating this correlation coefficient is to assess the contribution of income from loan in net profit of the bank.

Table 4.24
Correlation between Income from Loan and Net profit

| Banks | Correlation <br> coefficient (r) | $\mathbf{r}^{\mathbf{2}}$ | Probable <br> error | 6PE | Remarks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NIBL | 0.9899 | 0.9799 | 0.005534 | 0.0332055 | Significant |
| NABIL | 0.9325 | 0.8696 | 0.035919 | 0.215516 | Significant |

Source: Annual Report of Banks

Table 4.24 shows correlation, probable error of correlation between income from loan and net profit of the subjected banks for the studied period. The calculation shows the high degree of positive relation between income from loan and net profit of NIBL and NABIL at 0.9899 and 0.9325 .

The coefficient of determination $\left(\mathrm{r}^{2}\right)$ between income from loan and net profit of the NIBL is 0.9799 which means that the variation in independent variable (income from
loan) explains $97.99 \%$ of the variation in dependent variable (net profit). Likewise, the value of $r^{2}$ of the NABIL is 0.8696 which means that the variation in independent variable (income from loan) explains $86.96 \%$ of the variation in dependent variable (interest suspense).

This means that income from loan and advances of both banks has higher degree of contribution in net profit or the net profit of the banks is increasing almost at the same ratio in which income from loan and advances is increasing. 6 times of probable error of both banks is less than correlation coefficient, thus the relation between income from loan and net profit of both banks is highly significant.

### 4.10 Time Series Analysis

In this part of analysis of data, trend analysis and projection of the various variables has been conducted. The measure of trend analysis exhibits the behavior of given variables in series of time and on the basis of trend analysis the projection for the next five years has been made. The Least Square Method of trend analysis has been adopted to measure the trend values or projection.

### 4.10.1 Trend Analysis of Loan and Advances

In this part of analysis, the projection of loan and advances of all three subjected banks for following five years has been calculated. The projection is based on the assumption that all other factors effecting loan and advances will be constant.

Table 4.25

## Trend of Loan and Advances

(Rs in million)

| Projection of Loan and Advances |  |  |
| :---: | :---: | :---: |
|  | Loan and Advances |  |
| Year | NIBL | NABIL |
| $2002 / 2003$ | 5921.79 | 8113.68 |
| $2003 / 2004$ | 7338.57 | 8548.66 |
| $2004 / 2005$ | 10453.16 | 10946.74 |


| $2005 / 2006$ | 13178.15 | 13278.78 |
| :---: | :---: | :---: |
| $2006 / 2007$ | 17769.10 | 15903.02 |
| $2007 / 2008$ | 27529.30 | 21759.46 |
| $2008 / 2009$ | 37303.00 | 31110.08 |
| $2009 / 2010$ | 43204.16 | 35614.67 |
| $2010 / 2011$ | 49105.32 | 40119.25 |
| $2011 / 2012$ | 55006.49 | 44623.84 |
| $2012 / 2013$ | 60907.65 | 49128.43 |

Table 4.25 shows trend and projection of loan and advances of concerned banks. It shows the trend of both banks is increasing. The projected value of both banks is also in increasing.

## Figure 4.15

Trend of Loan and Advances


Figure 4.15 shows the actual figure and projected trend values of loan and advances of subjected banks for the following five years, calculated on the basis of least square the projection of loan and advances in increasing trend, if all other factors effecting loan and advances remain constant.

### 4.10.2 Trend Analysis of Non-performing Loan

In this part of analysis, the projection of non-performing loan of all three subjected banks for following five years has been calculated. The projection is based on the assumption that all other factors effecting loan and advances will be constant.

Table 4.26
Trend of Non-Performing Loan
(Rs in million)

| Projection of Non-performing Loan |  |  |
| :---: | :---: | :---: |
|  | Non-performing Loan |  |
| Year | NIBL | NABIL |
| $2002 / 2003$ | 117.09 | 449.63 |
| $2003 / 2004$ | 181.44 | 286.68 |
| $2004 / 2005$ | 280.87 | 144.50 |
| $2005 / 2006$ | 272.50 | 182.62 |
| $2006 / 2007$ | 421.97 | 178.29 |
| $2007 / 2008$ | 309.47 | 161.09 |
| $2008 / 2009$ | 606.88 | 199.39 |
| $2009 / 2010$ | 692.63 | 190.78 |
| $2010 / 2011$ | 778.38 | 182.18 |
| $2011 / 2012$ | 864.13 | 173.58 |
| $2012 / 2013$ | 949.88 | 164.97 |

Table 4.26 shows trend and projection of non-performing loan of concerned banks. It shows the trend of NIBL banks is in increasing and the trend of NABIL is fluctuating trend. The projected value from 2008/2009 of NIBL banks is increasing and the projected value NABIL is decreasing.

Figure 4.16
Trend of Non-performing Loan


Figure 4.16 shows the actual figure projected trend s for following five years of nonperforming loan of subjected calculated on the basis of least square method. The projection of non-performing loan of NIBL is in increasing trend while that of NABIL is in decreasing trend, if all other factors effecting non-performing loan remain constant.

### 4.10.3 Trend Analysis of Interest Suspense

In this part of analysis, the projection of interest suspense of all three banks for following five years has been calculated. The projection is bases on the assumption that all other factors effecting loan and advances will be constant.

Table 4.27
Trend of Interest Suspense
(In million)

| Projection of Interest suspense |  |  |
| :---: | :---: | :---: |
| Year | NIBL | NABIL |
| $2002 / 2003$ | 48.21 | 100.68 |
| $2003 / 2004$ | 30.74 | 112.45 |
| $2004 / 2005$ | 38.38 | 122.31 |
| $2005 / 2006$ | 77.94 | 109.67 |
| $2006 / 2007$ | 90.44 | 112.19 |


| $2007 / 2008$ | 106.68 | 128.04 |
| :---: | :---: | :---: |
| $2008 / 2009$ | 160.49 | 199.35 |
| $2009 / 2010$ | 184.27 | 220.63 |
| $2010 / 2011$ | 208.04 | 241.92 |
| $2011 / 2012$ | 231.81 | 263.20 |
| $2012 / 2013$ | 255.59 | 284.48 |

Table 4.27 shows trend and projection of interest suspense of concerned banks. It shows the trend of both banks is in increasing trend. The projected value of both banks is also in increasing trend.

## Figure 4.17

Trend of Interest Suspense


Figure 4.17 shows the actual figure and projected trend values for following five years of interest suspense of subjected banks, calculated on the basis of least square method. The projection of interest suspense of NIBL is in increasing trend from 2003/2004 and NABIL has also increasing trend from 2005/2006.

### 4.10.4 Trend analysis of Loan Loss Provision

In this part of analysis, the projection of loan loss provision of all three subjected banks for following five years has been calculated. The projection is based on the assumption that all other factors effecting loan and advances will be constant.

Table 4.28
Trend of Loan Loss Provision
(In million)

| Projection of Loan Loss Provision |  |  |
| :---: | :---: | :---: |
| Year | NIBL | NABIL |
| $2002 / 2003$ | 149.65 | 357.73 |
| $2003 / 2004$ | 208.44 | 358.66 |
| $2004 / 2005$ | 327.11 | 360.57 |
| $2005 / 2006$ | 401.94 | 356.24 |
| $2006 / 2007$ | 482.67 | 357.24 |
| $2007 / 2008$ | 532.65 | 394.41 |
| $2008 / 2009$ | 867.78 | 612.53 |
| $2009 / 2010$ | 997.12 | 674.62 |
| $2010 / 2011$ | 1126.46 | 736.72 |
| $2011 / 2012$ | 1255.80 | 798.82 |
| $2012 / 2013$ | 1385.14 | 860.91 |
|  |  |  |

Table 4.28 shows projection of loan loss provision of concerned banks. It shows the trend of both banks is in increasing trend. The projected value of both banks is also in increasing trend.

Figure 4.18

## Trend of Loan Loss Provision



Figure 4.18 shows the actual figure and projected trend for following five years of loan loss provision of subjected banks, calculated on the basis of least square method. The projection of loan loss provision of NIBL is in increasing trend and loan loss provision of NABIL is in decreasing trend.

### 4.11 Analysis of Primary Data

This section is based on primary data analysis which mainly deals with qualitative aspect of Loan and Advances. The data have been collected through distributing the questionnaire to the various person related to financial sectors and non financial sectors. The questionnaire was distributed to 50 people out of whom 42 responds came to the effect i.e. $84 \%$. Other remaining response $16 \%$ did not come because they were unable to response the question due to the large volume of questionnaire putting by the thesis student worked load in the office and their out of knowledge. These aspects include priority for the major decision of loan and advances, condition of non-performing loan, loan collecting procedure, loan recovery problem and recommendation of good lending.

## Recovery of Loan and Advances

In context to the recovery status of the loans and advances of sample banks majority of the respondents $(85.71 \%)$ stated that they are satisfied with the present loan recovery status of the company while rest $(14.29 \%)$ respondents stated that they are unsatisfied. (Appendix - 2)

## Idea to Collect to Lending Amount if Borrower Denied

In context to the idea to collect to lending amount if borrower denied of sample banks majority of the respondents ( $71.43 \%$ ) stated that usual norms of legal notice is to be an idea to collect lending amount while rest (28.57\%) respondents stated that they do not know. (Appendix - 2 )

## Follow to the Directives of Nepal Rastra Bank Relating to Loan and Advances

In context to follow to the directives of Nepal Rastra Bank relating to loan and advances majority of the respondents ( $85.71 \%$ ) stated that bank should be bound by it while rest ( $14.29 \%$ ) respondents stated that they do not know. (Appendix - 2)

## Problem of the Good Lending

In context to the problem of good lending in Nepal majority of the respondents ( $90.47 \%$ ) respond that there is no problem in good lending while rest (9.53\%) respondents stated that there is some problem. (Appendix - 2)

## Barrier of Collecting Loan and Advances

In context to the barrier of collecting loan and advance of sample banks majority of the respondents $(73.80 \%)$ stated that no barrier while rest ( $26.20 \%$ ) respondents stated that they some barrier. (Appendix - 2)

## Minimization of Non-performing Loan

In context to the minimization of non-performing loan of sample banks, majority of the respondents $(95.23 \%)$ stated that lend the amount to good credit history while rest (4.77\%) respondents stated that they do not know. (Appendix - 2)

## Role in Formulating Good Lending of Nepal Rastra Bank

In context to the role in formulating good lending of Nepal Rastra Bank majority of the respondents $(71.42 \%)$ stated that Provisions need to be enacted upon and implementing while rest $(28.58 \%)$ respondents stated that they do not know. (Appendix - 2)

## Affect Seemed in Recovering Loan and Advances Due to the Increasing Number of New Banks

In context to the affect seemed to recovering loan and advances with the increasing number of new banks majority of the respondents ( $95.23 \%$ ) stated no affect seemed while rest $(4.77 \%)$ respondents stated that they do not know. (Appendix - 2)

## More Risky Loan of the Banks

In context to the more risky loan of the banks majority of the respondents ( $97.62 \%$ ) stated that both (Short term and long term loan) are risky while rest ( $2.38 \%$ ) respondents stated that they don't know. (Appendix - 2)

## Loan Occupies More Volume

In context to the loan occupies more volume in sample banks majority of the respondents ( $95.23 \%$ ) stated that short term occupies more volume while rest (4.77\%) respondents stated that they don't know. (Appendix - 2)

### 4.12 Major Findings of the Study

From the analysis of data following findings can be drawn:

1. The analysis of loan and advances shows the irregular increment in loan and advances. The lending trend of both banks is in increasing trend; however the increment rate is not regular. We can take the increment in loan and advances of the subjected banks as the overall increment of banking industry. The average loan and advances of the NABIL is lesser than NIBL. And NIBL has its lending practice
inconsistence as standard deviation and coefficient of variation is highest. As per the C.V., NABIL seems to be consistent in lending activity for the studied period.
2. The volume of non-performing loan of both subjected bank is irregular as the ups and downs in amount of non-performing loan are often during the period. The volume of non-performing loan of any bank depends on the repayment of the loan installments or we can say it depends on the customers so the ups and down are obvious. The analysis of absolute data shows that NABIL has maintained low volume of non-performing loan in comparison to NIBL. The increment in nonperforming loan is of NIBL in 2003/2004 where it increases by $54.96 \%$ highest increment rate in overall and highest decline rate is of $49.60 \%$ of NABIL in 2004/2005.In case of non-performing loan NIBL is consistent as per the C.V.
3. The analysis of classified form of non-performing loan shows the amount of loss loan of NIBL is higher than substandard and doubtful loan. This means that even among the non-performing loan volume of worst loan is more or this means the loans are converting to loss loans year per year. Out of total non-performing loan of NIBL, more that $50 \%$ is loss loan. NABIL maintains its non-performing loan substandard and doubtful loan in 2002/2003 and 2007/2008. It also shows substandard and doubtful loan of 2002/2003 turns to loss loan in 2003/2004 and 2004/2005. NIBL has to focus on quality lending rather than a quantity.
4. The loan loss provision of NIBL is increasing every year, this may be due to increment in volume of loan and advances as for every loan out flowed $1 \%$ loan loss provision is compulsory or due to the degradation of loan. And loan loss provision of NABIL is not more fluctuate in studied period. Average loan loss provision of NABIL is highest at 364.14 million and it is obvious as there is huge amount of loan degraded to bad loan. The provisioning of NABIL seems to be consistent than NIBL with $4.09 \%$ of C.V. The C.V. of NIBL is $43.16 \%$.
5. The analysis of classified form of loan loss provision shows the increment of pass loan provision of both banks, this clarify the increment in loan and advances. Even the pass loan provisioning of NIBL is increasing every year. The provision for substandard and doubtful loan is in fluctuated while loss loan provision is increasing every year; this shows the degradation of loan. The pass loan provisioning of NABIL is increasing up to starting three year of studied period and than after it is in decrease in fourth year, it is increase in fifth year and again it increase in sixth year too. The provisioning of substandard loan is in decrease in first to second year, and than it is stared to increase up to fifth year and it is decrease in sixth year. The provisioning of doubtful loan is in decreasing up to three year of studied and than after it is increase in fourth year, it decrease in fifth year and again it is increase in sixth year. The provisioning of loss loan is increase in second year from first year of studied period, than after it is started to decreasing and it is increasing in sixth year from fifth year. From this we can conclude that NIBL has to focus it recovery of due loans.
6. The interest suspense of both banks is fluctuating trend. The average amount of interest suspense of NIBL is 65.40 million with standard deviation 30.71 million and C.V. of $46.96 \%$. This clarifies that NIBL has maintained the interest suspense at a level range but collection of interest is not satisfactory. The average amount of interest suspense of NABIL is 114.22 million with standard deviation 9.67 million and C.V. of $8.47 \%$. This clarifies that NABIL has maintained the interest suspense at a level range.
7. The analysis of loan and advances to total assets ratio reveals that portion of loan and advances in total assets of both banks is fluctuating. The average ratio of NIBL is $63.72 \%$ and that of NABIL is $56.69 \%$. From this, conclusion could be drawn that NIBL seems aggressive as it has more than $60 \%$ of assets as loan. NIBL is following the "no risk no gain" principle of business field. So, it was carrying large amount of risky assets to make huge amount of profit.
8. The maximum percent of deposit invested in loan and advances by NIBL is $79.91 \%$ in 2007/2008; however the mean ratio is $72.31 \%$. In the case of NABIL the ratio of loan and advances to total deposit ratio is $68.18 \%$ in 2007/2008; however the mean ratio is $66.81 \%$. This shows the aggressive characteristic of NIBL in fund mobilization.
9. Above loan and advances to total assets ratio and loan and advances to total deposit ratio shows that the lending characteristics or risk bearing nature of NIBL is almost aggressive then NABIL. So, NABIL has to focus on lending activity to earn more interest and profit and from now NIBL has to seek the quality lending opportunity.
10. Out of total income generating fund that is loan plus investment, NIBL has invested $73.20 \%$ and NABIL has invested $64.94 \%$ in average. The ratio of NIBL is above $70 \%$ throughout the period thus it clarifies that NIBL do not believe in lending in stock, fixed deposits or many other investment with lower return to avoid risk while NABIL doesn't want to take any extra risk.
11. The analysis of portion of loan in various factors reveals that NABIL has fewer portions. This may be due to reluctance of NABIL to any kind of risk or the deposit collection of NABIL is in pace or the approach for the loan is minimum.
12. The analysis of interest income from loan to total income ratio reveals that the average portion. Interest income from loan in total income of NIBL is $68.95 \%$ while the NABIL has $56.16 \%$. The aggressive policy of NIBL to have more loan and advances have resulted more interest income.
13. The non-performing loan to total loan ratio reveals the quality of the loan of the subjected banks. In this context it could be say that NIBL has lent quality having $2.12 \%$ average non-performing loan in total loan, while the quality of loan of NABIL doesn't differ much at average non-performing loan being $2.24 \%$. The analysis shows that NABIL has recovered lots of non-performing loan during the
period, while NIBL maintained average amount of non-performing loan. Among the non-performing loan both banks have fluctuate the volume of loss loan and substandard loan. From this conclusion could be drawn that some new loan is turning on non-performing loan as the volume of substandard loan of both banks is fluctuating, while former substandard and doubtful loan is still to be recovered and they turning into loss loan thus the volume of loss loan is fluctuated.
14. As the loan loss provision is outcome of volume of non-performing loan, average loan loss provision to total loan ratio of NIBL is lowest at $2.70 \%$. The ratio of loan loss provision to total loan of NABIL is $3.11 \%$. In first of the period the ratio of NABIL is above average while in later it is able to reduce provision and ratio is reduced below average. In case of NIBL, in first year it is below than average, in second, third, fourth and fifth year it is higher than average, from sixth year it is less than average. It means NIBL fail to maintained same quality of loan and advances. But in average it is better than NABIL.
15. The amount of loan loss provision is kept as certain percent of total loan outstanding; however it is set apart out of total income, thus the amount of loan loss provision directly affect the profitability of the bank. The ratio of loan loss provision to total income reveals that NIBL has set apart the large amount of total income as loan loss provision averaging $24.71 \%$, which definitely reduces its net profit. The average of NABIL is at $21.20 \%$. In this case the performance of NABIL is quite good then NIBL.
16. The ratio of interest suspense to total interest from loan and advances reveals that NABIL has poor turnover of income from loan as it has $11.87 \%$ of interest income from loan is in suspense, however it is able to reduce it during the studied period. Even the average ratio of NIBL is lowest at $6.94 \%$ it was unable to maintain the ratio of the period and is fluctuate every year.
17. In spite of declining ratio of interest suspense to total interest income during the period NABIL has highest average portion of total interest income as interest suspense i.e. $9.08 \%$. The average ratio of NIBL is $6.04 \%$. The larger amount in interest suspense will reduce the profit of the bank as it could not be counted as the income and it could not be turnover to multiply the profit, thus banks have to give extra attention to collect due interest, specially by NABIL.
18. The correlation analysis has shown high degree correlation between deposits and loan and advances in both banks. This means mobilization of loans and advances is in high degree in respect to the deposits collected. This is indicative of availability of good lending opportunity. Between them, NIBL has the highest degree of positive relation between deposits and loan and advances, while that of NABIL is slightly low. And significance of their relation is proved by the six times of probable error is less than correlation.
19. The correlation analysis between non-performing loan and loan and advances shows that the volume of non-performing loan is not increasing as per the increment in loan and advances. The significant test of probable error also fails to support the relation between loan and advances and non-performing loan. As probable error is less than correlation coefficient and 6 times of probable error is greater than correlation coefficient ( $\mathrm{PE}<\mathrm{r}<6 \mathrm{PE}$ ) of NIBL. It means nothing can be concluded about their relation. Probable error is greater than correlation coefficient ( $\mathrm{r}<\mathrm{PE}$ ) of NABIL is insignificant. From this a conclusion could be drawn that the nonperforming loan of the banks are not only depended on the volume of loan but also to other factors related to it, such as political situation, economic condition, nature of business, character of the customer etc. which are experiencing these days in our country.
20. The analysis shows positive correlation between loan and advances and loan loss provision of NIBL and also positive correlation of NABIL. Loan and advances is the major contributor to net profit of every financial institution. From this
conclusion could be drawn that NABIL has strategy of low interest rate to grab the major market portion as it has low interest income from loan even the volume of loan is higher relatively. And correlation coefficient of both banks has greater than 6 times of probable error ( $\mathrm{r}>6 \mathrm{PE}$ ) is significant.
21. The trend line analysis of loan and advances of both subjected banks are positive, NIBL having higher trend line. This shows that the aggression of banks to inject the loan in market. Likewise the trend line projection of non-performing loan shows that the NIBL will have highest non-performing loan volume in future, while NABIL has decreasing trend of non-performing loan. NIBL bank should be conscious in credit appraisal. The line projection of interest suspense shows the steady growth of interest suspense of both NIBL and NABIL. The trend line projection for loan loss provision of NIBL will have highest loan loss provision in future, while NABIL has slightly low trend of loan loss provision.
22. From primary data analysis, in context to the recovery status of the loans and advances of sample banks, majority of the respondents stated that recovery is satisfied.
23. In context to the idea to collect to lending amount if borrower denied of sample banks, majority of the respondent stated that usual norms of legal notice is to be an idea to collect lending amount.
24. In context to follow to the directives of Nepal Rastra Bank relating to loan and advances, majority of the respondents agree with bank should be bound by it.
25. In context to the problem of good lending in Nepal, majority of the respondents stated that there is no problem in good lending.
26. In context to the barrier of collecting loan and advance of sample banks, majority of the respondents stated that there is no barrier in collecting loan and advances.
27. In context to the minimization of non-performing loan of sample banks, majority of the respondents stated that bank should lend the amount to the good credit history.
28. In context to the role in formulating good lending of Nepal Rastra Bank, majority of the respondents stated that all provisions need to be enacted upon and implementing.
29. In context to the affect seemed to recovering loan and advances with the increasing number of new banks, majority of the respondents stated that there is no affect seemed in recovery of loan and advances.
30. In context to the more risky loan of the banks, majority of the respondents stated that both (Short term and long term loan) are risky.
31. In context to the loan occupies more volume in sample banks, majority of the respondents stated that short term loan occupies more volume in both banks.

## CHAPTER - V <br> SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter of the study focuses on facts and matters acquired from the various parts of the study or deals with the result of the study. This part of the study includes, summary of the study, conclusions of the study and recommendations as per the findings and conclusion.

### 5.1 Summary

Banking system is backbone of the national economy, which supports it to erect and rise up and the prosperity of banking system depends on its two major functions deposit collection and lending. At present situation deposit collection is not much difficult, as liquidity of overall banking system is rising up. But the lending function is not like that, as banks are facing two major challenges in lending. First of all, due to unfavorable political environment and violence businessmen are reluctant to invest in business so the volume of loan and advances is not in regular trend and if loan is given the problem of turning loan to non-performing is another challenge banks are facing.

The objectives of this research are to analyze the situation of loan and advances, to analyze the lending capacity, to analyze contribution of loan and advances in total income, to analyze the situation of non-performing loan of Nabil Bank Ltd. and Nepal Investment Bank Ltd.

Among 26 commercial banks, only Nepal Investment Bank Ltd. and Nabil Bank Ltd. have been taken as the sample for the study. The study has covered a period of six fiscal years from 2002/2003 to 2007/2008. The study has been conducted on primary and secondary pooled data such as questionnaire and annual reports of sample banks. For the analysis of data different financial tools like ratio analysis, standard deviation ( $\sigma$ ), coefficient of variation (C.V.), correlation (r), coefficient of determination ( $r^{2}$ ), probable error (PE), and time series have been used.

Most of the thing about loan and advances of commercial banks and brief introduction of this study have been already presented in first chapter, the available literature related to loan and advances of commercial banks have been presented in second chapter. Moreover research methodology has been described in third chapter. All available data are presented and analyzed in the forth chapter. In fifth chapter, an attempt has been made to present summary, conclusion, and recommendations.

### 5.2 Conclusion

From the study conclusion could be drawn that along with increment in deposits the volume of loan and advances of the commercial banks are increasing. The lending and recovery trend of the commercial banks is inconsistent; however the lending and recovery process is continuously going on. The lending capacities of banks are increasing as single borrower obligor limit and volume of loan and advances have been increasing year after year. The volume of non-performing loan reveals the situation of loan recovery of commercial banks. The study reveals that the lending capacity of the commercial banks is increasing year after along with its core capital. Regarding the loan and advances portfolio, the commercial banks are focused to lend private sector only. The study reveals that loan and advances contribute major portion in total income thus loan and advances is life for the commercial banks.

The trend of loan and advances, it seems from the study is that it is in increasing mode, which means the situation of loan and advances of both the sample banks i.e. NIBL and NABIL is growing and will grow in the future as well. Since, loan and advances is the main source of income for the financial institutions, the constant growth insures the constant and increasing income rate which is a good sign for both the organizations. But, the study of the trend also reveals that the Non-performing loan and Loan loss provision of NIBL is increasing and it is projected to increase further in the future. Whereas, Nonperforming loan of NABIL is right now fluctuating and it is projected to decrease in the future. But the loan loss provision of NABIL is also in increasing trend.

When analyzed about the relationship prevailing between the loan and advances with the other variables it was seen that Deposit and loan loss provision shares high degree of positive relationship with loan and advances. The loan and advances are increasing in same ratio as that of deposit and loan loss provision showing highly significant relation. And at the same time, non-performing loan shows insignificant relationship with the loan and advances.

The portion of non-performing loan in total loan portfolio is improving year after year of Nepal Investment Banks but it is in decreasing in Nabil Bank, however among the nonperforming loan portion of bad loan is highest, this means turning new loans into nonperforming is rare and the past non-performing are still non recovered and degraded every year.

The conclusion regarding the provisions relating to the loan and advances enacted by the NRB made from the study shows that the directives must be binding and they must be very properly and strictly implemented upon. The risk is the inseparable part of the loan. So, it can't be derived accordingly to its term period. The study shows that out of the total loan issued by the bank, short term loan occupies the major portions of issuance. It also focuses the role of NRB in banking sector.

### 5.3 Recommendations

Based on the finding and conclusions, the following recommendations have been forwarded:

1. The volume of loan and advances of both subjected banks is increasing this is good as it will increase the interest income. But the serious thing is increment of nonperforming loan along with. The neck to neck competition between banks led them to rampant lending which results to non-performing loans. Thus the perfect credit appraisal should be followed to avoid the bad loans. Banks should thoroughly analyze the capital, character, management capability and credit information of the customer as the primary factor and external environment and collateral as the
secondary factor before taking lending decision. After loan disbursement the regular monitoring and follow-up is essential to maintain the loan as good loan.
2. Banks seems to be focused mainly on loan and advances while there are various other relatively risk-free sectors of investment like, stocks, debenture, etc. Portfolio condition of both banks should be examined carefully in regular interval to maintain equilibrium condition. The banks should not forget the statement "all eggs should not be kept t in same basket". The subjected banks, especially NIBL, suggested increasing their portfolio in government sector lending and bills purchased due to more interest suspense, which are relatively less risky, as they have only nominal portion of those in their portfolio. NIBL has to increase its core capital to lend more amounts in single borrower obligor limit. It helps to enhance its lending capacity and gain more profit.
3. The analysis of non-performing loan, loan loss provision and interest suspense shows that NIBL have to focus more on quality lending and effective recovery in comparison with NABIL.
4. To acquire the market space in today's growing neck to neck competition in banking sector, the banking should be customer oriented. It should facilitate customers and should provide easy and quick services in convenient way and along with this it must follow the safety measure to banks investment then only success will be achieved.
5. The study shows that the short term loan is primarily issued by both the banks. But since the short term loan contributes in fast growth of non-performing in comparison to other variables and Non-performing loan negatively affects the increase in profit, both the banks should curtail the risk factor of short term loan. While issuing this kind of loan.
6. NRB plays the vital role in the development of financial institutions. So, in addition to the effort NRB has been showing, it must implement the Acts and regulation regarding loan and advances more bindingly and strictly, which will result with the decrease in non-performing loan, positively affecting the performance of the banks and profitability.

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## Thesis

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## Web Sites

www.bkpromotion.com.np
www.mof.gov.np
www.nabilbankltd.com
www.nepalnews.com
www.nepalstock.com
www.nibl.com.np
www.nrb.org.np

## Appendices

## Appendix: 1

## Given Questionnaire

I would be much obliged if you kindly help by answering me with the few question relating to the thesis. I am on the course of preparing, entitled "A study on Loan and Advances of Commercial Banks" with reference to Nepal Investment Bank Ltd. and Nabil Bank Ltd. as per the requirement of the partial fulfillment of the degree of MBS.

My questionnaire runs as follows:

1) Are you satisfied about the recovery of Loan and Advances in your bank?
a) Yes
b) No
2) Which idea do you follow to collect your lending if the borrower denied?
a) Usual norm of legal notice is to be an idea.
b) Do not know.
3) Is your bank following the directives of Nepal Rastra Bank relating to Loan and Advances?
a) Yes, all banks should be bound by it.
b) Do not know.
4) What is the problem of good lending?
a) No problem in good lending.
b) Some problem.
5) What is the barrier of collecting Loan and Advances?
a) No barrier.
b) Some barrier.
6) How to minimize non-performing loans or assets?
a) Lend the amount in good credit history.
b) Do not know.
7) How can Nepal Rastra Bank play the role in formulating good lending?
a) Provisions need to be enacted upon and implementing.
b) Do not know.
8) Is there any effect seemed to recovering Loan and Advances for your bank with the increasing number of new banks?
a) No affect seemed
b) Do not know.
9) Which types of Loan is more risky in your bank? Please, tick on correct.
a) Long term loan.
b) Short term loan.
10) Which types of loan occupies more volume in your bank regarding total Loan and Advances? Please, tick on correct.
a) Long Term
b) Short Term

Thank you, for your response.

Yours truly,
Pramod Wagle
Roll No. 217/061
Shanker Dev Campus
(Tribhuvan University)

## Appendix: 2

## Number of responses on the Major Aspect of Loan and Advances

| Q.No. | a |  | b |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 36 | $(85.71 \%)$ | 6 | $(14.29 \%)$ | 42 | $(100 \%)$ |
| 2 | 30 | $(71.43 \%)$ | 12 | $(28.57 \%)$ | 42 | $(100 \%)$ |
| 3 | 36 | $(85.71 \%)$ | 6 | $(14.29 \%)$ | 42 | $(100 \%)$ |
| 4 | 38 | $(90.47 \%)$ | 4 | $(9.53 \%)$ | 42 | $(100 \%)$ |
| 5 | 31 | $(73.80 \%)$ | 11 | $(26.20 \%)$ | 42 | $(100 \%)$ |
| 6 | 40 | $(95.23 \%)$ | 2 | $(4.77 \%)$ | 42 | $(100 \%)$ |
| 7 | 30 | $(71.43 \%)$ | 12 | $(28.57 \%)$ | 42 | $(100 \%)$ |
| 8 | 40 | $(95.23 \%)$ | 2 | $(4.77 \%)$ | 42 | $(100 \%)$ |
| 9 | 41 | $(97.62 \%)$ | 1 | $(2.38 \%)$ | 42 | $(100 \%)$ |
| 10 | 40 | $(95.23 \%)$ | 2 | $(4.77 \%)$ | 42 | $(100 \%)$ |

## Appendix: 3

## Total Assets

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | $\mathrm{X}-\overline{\mathrm{x}}$ | $\mathrm{X}-\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 9014.25 | -12042.10 | -12042.10 | 145012172.41 |
| $2003 / 2004$ | 13255.50 | -7800.85 | -7800.85 | 60853260.72 |
| $2004 / 2005$ | 16274.06 | -4782.29 | -4782.29 | 22870297.64 |
| $2005 / 2006$ | 21330.14 | 273.79 | 273.79 | 74960.96 |
| $2006 / 2007$ | 27590.84 | 6534.49 | 6534.49 | 42699559.56 |
| $2007 / 2008$ | 38873.31 | 17816.96 | 17816.96 | 317444063.64 |
| Sum | 126338.10 |  | Sum | 588954314.94 |
| Mean |  | 21056.35 |  |  |
| Standard deviation |  |  |  |  |
| c.v |  |  |  |  |


| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 16562.62 | -6305.81 | -6305.81 | 39763197.72 |
| $2003 / 2004$ | 16745.49 | -6122.94 | -6122.94 | 37490353.42 |
| $2004 / 2005$ | 17186.33 | -5682.10 | -5682.10 | 32286222.53 |
| $2005 / 2006$ | 22329.97 | -538.46 | -538.46 | 289935.58 |
| $2006 / 2007$ | 27253.39 | 4384.96 | 4384.96 | 19227903.43 |
| $2007 / 2008$ | 37132.76 | 14264.33 | 14264.33 | 203471205.44 |
| Sum | 137210.56 |  | Sum | 332528818.13 |
| Mean |  |  |  |  |
| Standard deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 4

Total Loan and Advances

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 5921.79 | -7776.56 | -7776.56 | 60474807.67 |
| $2003 / 2004$ | 7338.57 | -6359.78 | -6359.78 | 40446738.05 |
| $2004 / 2005$ | 10453.16 | -3245.19 | -3245.19 | 10531225.68 |
| $2005 / 2006$ | 13178.15 | -520.20 | -520.20 | 270602.84 |
| $2006 / 2007$ | 17769.10 | 4070.76 | 4070.76 | 16571046.27 |
| $2007 / 2008$ | 27529.30 | 13830.96 | 13830.96 | 191295316.21 |
| Sum | 82190.07 |  | Sum | 319589736.72 |
| Mean |  | 13698.345 |  |  |
| Standard Deviation |  |  |  |  |
| c.v | 7994.87 |  |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 8113.68 | -4978.04 | -4978.04 | 24780915.43 |
| $2003 / 2004$ | 8548.66 | -4543.06 | -4543.06 | 20639424.45 |
| $2004 / 2005$ | 10946.74 | -2144.98 | -2144.98 | 4600953.50 |
| $2005 / 2006$ | 13278.78 | 187.06 | 187.06 | 34990.20 |
| $2006 / 2007$ | 15903.02 | 2811.30 | 2811.30 | 7903388.95 |
| $2007 / 2008$ | 21759.46 | 8667.74 | 8667.74 | 75129658.92 |
| Sum | 78550.34 |  | Sum | 133089331.45 |
| Mean |  | 13091.72333 |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 5

## Total Deposit

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 7922.77 | -10672.22 | -10672.22 | 113896173.01 |
| $2003 / 2004$ | 11524.68 | -7070.31 | -7070.31 | 49989212.79 |
| $2004 / 2005$ | 14254.57 | -4340.42 | -4340.42 | 18839202.37 |
| $2005 / 2006$ | 18927.31 | 332.33 | 332.33 | 110439.91 |
| $2006 / 2007$ | 24488.85 | 5893.87 | 5893.87 | 34737644.64 |
| $2007 / 2008$ | 34451.73 | 15856.75 | 15856.75 | 251436362.00 |
| Sum | 111569.91 |  | Sum | 469009034.71 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v | 18594.985 |  |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 13447.66 | -6012.01 | -6012.01 | 36144284.28 |
| $2003 / 2004$ | 14119.03 | -5340.64 | -5340.64 | 28522453.41 |
| $2004 / 2005$ | 14586.61 | -4873.06 | -4873.06 | 23746730.01 |
| $2005 / 2006$ | 19347.40 | -112.27 | -112.27 | 12604.93 |
| $2006 / 2007$ | 23342.28 | 3882.61 | 3882.61 | 15074647.47 |
| $2007 / 2008$ | 31915.05 | 12455.38 | 12455.38 | 155136449.43 |
| Sum | 116758.03 |  | Sum | 258637169.52 |
| Mean |  | 19459.67167 |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 6

## Investments

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 1705.24 | -3042.17 | -3042.17 | 9254818.59 |
| $2003 / 2004$ | 3862.48 | -884.93 | -884.93 | 783107.00 |
| $2004 / 2005$ | 3934.19 | -813.22 | -813.22 | 661332.19 |
| $2005 / 2006$ | 5602.87 | 855.46 | 855.46 | 731806.11 |
| $2006 / 2007$ | 6505.68 | 1758.27 | 1758.27 | 3091501.67 |
| $2007 / 2008$ | 6874.02 | 2126.61 | 2126.61 | 4522455.91 |
| Sum | 28484.48 |  | Sum | 19045021.48 |
| Mean |  | 4747.41333 |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  | 41.11 |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\bar{x}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 6031.17 | -835.16 | -835.16 | 697486.66 |
| $2003 / 2004$ | 5835.95 | -1030.38 | -1030.38 | 1061676.08 |
| $2004 / 2005$ | 4267.23 | -2599.10 | -2599.10 | 6755303.48 |
| $2005 / 2006$ | 6178.53 | -687.80 | -687.80 | 473064.25 |
| $2006 / 2007$ | 8945.31 | 2078.98 | 2078.98 | 4322171.70 |
| $2007 / 2008$ | 9939.77 | 3073.44 | 3073.44 | 9446053.92 |
| Sum | 41197.96 |  | Sum | 22755756.09 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 7

## Non-performing Loan

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 117.09 | -146.80 | -146.80 | 21549.75 |
| $2003 / 2004$ | 181.44 | -82.45 | -82.45 | 6797.73 |
| $2004 / 2005$ | 280.87 | 16.98 | 16.98 | 288.38 |
| $2005 / 2006$ | 272.49 | 8.60 | 8.60 | 73.99 |
| $2006 / 2007$ | 421.97 | 158.08 | 158.08 | 24989.81 |
| $2007 / 2008$ | 309.47 | 45.58 | 45.58 | 2077.69 |
| Sum | 1583.33 |  | Sum | 55777.35 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 449.63 | 215.83 | 215.83 | 46581.87 |
| $2003 / 2004$ | 286.68 | 52.88 | 52.88 | 2796.12 |
| $2004 / 2005$ | 144.50 | -89.30 | -89.30 | 7974.79 |
| $2005 / 2006$ | 182.62 | -51.18 | -51.18 | 2619.56 |
| $2006 / 2007$ | 178.29 | -55.51 | -55.51 | 3081.55 |
| $2007 / 2008$ | 161.09 | -72.71 | -72.71 | 5286.99 |
| Sum | 1402.81 |  | Sum | 68340.87 |
| Mean |  |  | 233.8016667 |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 8

## Non-performing Loan Classification

| NIBL |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Sub standard | Loss | Total |
| $2002 / 2003$ | 22.03 | 91.47 | 117.09 |
| $2003 / 2004$ | 10.84 | 106.72 | 181.44 |
| $2004 / 2005$ | 0.82 | 205.11 | 280.87 |
| $2005 / 2006$ | 44.24 | 227.76 | 272.50 |
| $2006 / 2007$ | 96.89 | 239.03 | 421.97 |
| $2007 / 2008$ | 61.74 | 227.01 | 309.47 |


| NABIL |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Sub standard | Doubtful | Total |
| $2002 / 2003$ | 76.31 | 279.12 | 449.63 |
| $2003 / 2004$ | 22.14 | 65.55 | 286.68 |
| $2004 / 2005$ | 22.07 | 1.93 | 144.50 |
| $2005 / 2006$ | 62.67 | 29.56 | 182.62 |
| $2006 / 2007$ | 119.70 | 14.47 | 178.29 |
| $2007 / 2008$ | 66.22 | 42.58 | 161.09 |

## Appendix: 9

## Loan Loss Provision

| NIBL $^{\prime}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 149.65 | -200.76 | -200.76 | 40304.58 |
| $2003 / 2004$ | 208.44 | -141.97 | -141.97 | 20155.48 |
| $2004 / 2005$ | 327.11 | -23.30 | -23.30 | 542.89 |
| $2005 / 2006$ | 401.94 | 51.53 | 51.53 | 2655.34 |
| $2006 / 2007$ | 482.67 | 132.26 | 132.26 | 17492.71 |
| $2007 / 2008$ | 532.65 | 182.24 | 182.24 | 33211.42 |
| Sum | 2102.46 |  | Sum | 114362.41 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  | 150.41 |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | $\mathrm{X}-\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 357.73 | -6.41 | -6.41 | 41.11 |
| $2003 / 2004$ | 358.66 | -5.48 | -5.48 | 30.05 |
| $2004 / 2005$ | 360.57 | -3.57 | -3.57 | 12.76 |
| $2005 / 2006$ | 356.24 | -7.90 | -7.90 | 62.44 |
| $2006 / 2007$ | 357.24 | -6.90 | -6.90 | 47.63 |
| $2007 / 2008$ | 394.41 | 30.27 | 30.27 | 916.17 |
| Sum | 2184.85 |  | Sum | 1110.16 |
| Mean |  |  | 364.1416667 |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 10

Classification of Loan Loss Provision

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Pass | Substandard | Doubtful | Loss |
| $2002 / 2003$ | 57.21 | 2.49 | 0.46 | 89.49 |
| $2003 / 2004$ | 70.83 | 2.73 | 29.9 | 104.99 |
| $2004 / 2005$ | 101.06 | 0.21 | 37.56 | 188.28 |
| $2005 / 2006$ | 128.76 | 11.06 | 0.25 | 225.49 |
| $2006 / 2007$ | 173.50 | 24.57 | 43.08 | 236.82 |
| $2007 / 2008$ | 274.45 | 15.43 | 10.40 | 227.01 |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Pass | Substandard | Doubtful | Loss |
| $2002 / 2003$ | 122.59 | 18.32 | 136.62 | 80.20 |
| $2003 / 2004$ | 127.73 | 5.14 | 32.38 | 193.41 |
| $2004 / 2005$ | 235.35 | 6.86 | 1.42 | 116.94 |
| $2005 / 2006$ | 130.34 | 42.57 | 13.9 | 85.47 |
| $2006 / 2007$ | 175.50 | 56.64 | 7.12 | 38.14 |
| $2007 / 2008$ | 291.71 | 32.31 | 21.27 | 46.09 |

## Appendix: 11

## Interest Suspense

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| 2002/2003 | 48.21 | -17.19 | -17.19 | 295.44 |
| 2003/2004 | 30.74 | -34.66 | -34.66 | 1201.20 |
| 2004/2005 | 38.38 | -27.02 | -27.02 | 729.99 |
| 2005/2006 | 77.94 | 12.54 | 12.54 | 157.29 |
| 2006/2007 | 90.44 | 25.04 | 25.04 | 627.09 |
| 2007/2008 | 106.68 | 41.28 | 41.28 | 1704.18 |
| Sum | 392.39 |  | Sum | 4715.18 |
| Mean |  |  |  | 65.3983333 |
| Standard Deviation |  |  |  | 30.71 |
| c.v |  |  |  | 46.96 |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| 2002/2003 | 100.68 | -13.54 | -13.54 | 183.42 |
| 2003/2004 | 112.45 | -1.77 | -1.77 | 3.14 |
| 2004/2005 | 122.31 | 8.09 | 8.09 | 65.39 |
| 2005/2006 | 109.67 | -4.55 | -4.55 | 20.73 |
| 2006/2007 | 112.19 | -2.03 | -2.03 | 4.13 |
| 2007/2008 | 128.04 | 13.82 | 13.82 | 190.90 |
| Sum | 685.34 |  | Sum | 467.73 |
| Mean |  |  |  | 114.2233333 |
| Standard Deviation |  |  |  | 9.67 |
| c.v |  |  |  | 8.47 |

## Appendix: 12

## Core Capital

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 621.44 | -778.21 | -778.21 | 605613.40 |
| $2003 / 2004$ | 710.61 | -689.04 | -689.04 | 474778.42 |
| $2004 / 2005$ | 1161.48 | -238.17 | -238.17 | 56725.74 |
| $2005 / 2006$ | 1393.27 | -6.38 | -6.38 | 40.73 |
| $2006 / 2007$ | 1852.20 | 452.55 | 452.55 | 204799.99 |
| $2007 / 2008$ | 2658.91 | 1259.26 | 1259.26 | 1585731.55 |
| Sum | 8397.91 |  | Sum | 2927689.83 |
| Mean |  | 1399.65 |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  | 765.20 |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 1276.85 | -475.49 | -475.49 | 226092.33 |
| $2003 / 2004$ | 1439.45 | -312.89 | -312.89 | 97901.20 |
| $2004 / 2005$ | 1610.51 | -141.83 | -141.83 | 20116.22 |
| $2005 / 2006$ | 1830.79 | 78.45 | 78.45 | 6154.14 |
| $2006 / 2007$ | 1992.85 | 240.51 | 240.51 | 57844.26 |
| $2007 / 2008$ | 2363.60 | 611.26 | 611.26 | 373636.75 |
| Sum | 10514.05 |  | Sum | 781744.89 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 13

## Total Income

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 577.93 | -896.88 | -896.88 | 804396.72 |
| $2003 / 2004$ | 913.71 | -561.10 | -561.10 | 314835.08 |
| $2004 / 2005$ | 1145.63 | -329.18 | -329.18 | 108360.57 |
| $2005 / 2006$ | 1461.43 | -13.38 | -13.38 | 179.07 |
| $2006 / 2007$ | 1999.76 | 524.95 | 524.95 | 275570.75 |
| $2007 / 2008$ | 2750.41 | 1275.60 | 1275.60 | 1627151.11 |
| Sum | 8848.87 |  | Sum | 3130493.30 |
| Mean |  | 1474.81167 |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X-х̄ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| 2002/2003 | 1427.45 | -358.42 | -358.42 | 128467.29 |
| 2003/2004 | 1429.05 | -356.82 | -356.82 | 127322.89 |
| 2004/2005 | 1510.68 | -275.19 | -275.19 | 75731.37 |
| 2005/2006 | 1751.21 | -34.66 | -34.66 | 1201.55 |
| 2006/2007 | 2092.81 | 306.94 | 306.94 | 94210.12 |
| 2007/2008 | 2504.04 | 718.17 | 718.17 | 515763.36 |
| Sum | 10715.24 |  | Sum | 942696.57 |
| Mean |  |  |  | 1785.873333 |
| Standard Deviation |  |  |  | 434.21 |
| c.v |  |  |  | 24.31 |

## Appendix: 14

Income from Loan and Advances

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\text { X- } \overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 422.72 | -582.93 | -582.93 | 339809.33 |
| $2003 / 2004$ | 664.23 | -341.42 | -341.42 | 116568.75 |
| $2004 / 2005$ | 770.17 | -235.48 | -235.48 | 55451.62 |
| $2005 / 2006$ | 965.61 | -40.04 | -40.04 | 1603.34 |
| $2006 / 2007$ | 1302.96 | 297.31 | 297.31 | 88392.25 |
| $2007 / 2008$ | 1908.22 | 902.57 | 902.57 | 814629.60 |
| Sum | 6033.91 |  | Sum | 1416454.87 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  | 1005.65167 |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 782.15 | -227.93 | -227.93 | 51952.08 |
| $2003 / 2004$ | 768.85 | -241.23 | -241.23 | 58191.91 |
| $2004 / 2005$ | 837.96 | -172.12 | -172.12 | 29625.29 |
| $2005 / 2006$ | 994.74 | -15.34 | -15.34 | 235.32 |
| $2006 / 2007$ | 1174.17 | 164.09 | 164.09 | 26925.53 |
| $2007 / 2008$ | 1502.61 | 492.53 | 492.53 | 242585.80 |
| Sum | 6060.48 |  | Sum | 409515.94 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 15

Income from Investments and Others

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 37.66 | -129.27 | -129.27 | 16710.73 |
| $2003 / 2004$ | 68.39 | -98.54 | -98.54 | 9710.13 |
| $2004 / 2005$ | 117.60 | -49.33 | -49.33 | 2433.45 |
| $2005 / 2006$ | 208.05 | 41.12 | 41.12 | 1690.85 |
| $2006 / 2007$ | 282.87 | 115.94 | 115.94 | 13442.08 |
| $2007 / 2008$ | 287.01 | 120.08 | 120.08 | 14419.21 |
| Sum | 1001.58 |  | Sum | 58406.46 |
| Mean |  |  |  | 166.93 |
| Standard Deviation |  | 108.08 |  |  |
| c.v |  | 64.75 |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | $\mathrm{X}-\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 241.57 | -82.27 | -82.27 | 6768.08 |
| $2003 / 2004$ | 240.00 | -83.84 | -83.84 | 7028.87 |
| $2004 / 2005$ | 236.92 | -86.92 | -86.92 | 7554.80 |
| $2005 / 2006$ | 321.59 | -2.25 | -2.25 | 5.06 |
| $2006 / 2007$ | 420.50 | 96.66 | 96.66 | 9343.48 |
| $2007 / 2008$ | 482.45 | 158.61 | 158.61 | 25157.66 |
| Sum | 1943.03 |  | Sum | 55857.94 |
| Mean |  |  | 323.8383333 |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  |  |  |

## Appendix: 16

## Net Income (Profit)

| NIBL $^{\prime}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 116.82 | -224.90 | -224.90 | 50579.26 |
| $2003 / 2004$ | 152.67 | -189.05 | -189.05 | 35739.27 |
| $2004 / 2005$ | 232.15 | -109.57 | -109.57 | 12005.22 |
| $2005 / 2006$ | 350.54 | 8.82 | 8.82 | 77.82 |
| $2006 / 2007$ | 501.40 | 159.68 | 159.68 | 25498.23 |
| $2007 / 2008$ | 696.73 | 355.01 | 355.01 | 126033.28 |
| Sum | 2050.31 |  | Sum | 249933.09 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  | 241.718333 |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 416.23 | -158.08 | -158.08 | 24989.81 |
| $2003 / 2004$ | 455.31 | -119.00 | -119.00 | 14161.40 |
| $2004 / 2005$ | 518.64 | -55.67 | -55.67 | 3099.33 |
| $2005 / 2006$ | 635.26 | 60.95 | 60.95 | 3714.70 |
| $2006 / 2007$ | 673.96 | 99.65 | 99.65 | 9929.79 |
| $2007 / 2008$ | 746.47 | 172.16 | 172.16 | 29638.49 |
| Sum | 3445.87 |  | Sum | 85533.53 |
| Mean |  |  |  |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  | 130.79 |  |

## Appendix: 17

## Number of Shares

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | $\mathrm{X}-\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 2.95 | -3.34 | -3.34 | 11.13 |
| $2003 / 2004$ | 2.95 | -3.34 | -3.34 | 11.13 |
| $2004 / 2005$ | 5.88 | -0.41 | -0.41 | 0.17 |
| $2005 / 2006$ | 5.90 | -0.39 | -0.39 | 0.15 |
| $2006 / 2007$ | 8.01 | 1.72 | 1.72 | 2.97 |
| $2007 / 2008$ | 12.03 | 5.74 | 5.74 | 32.99 |
| Sum | 37.72 |  | Sum | 58.54 |
| Mean | 6.28666667 |  |  |  |
| Standard Deviation |  | 3.42 |  |  |
| c.v |  |  |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 4.91 | -0.33 | -0.33 | 0.11 |
| $2003 / 2004$ | 4.91 | -0.33 | -0.33 | 0.11 |
| $2004 / 2005$ | 4.91 | -0.33 | -0.33 | 0.11 |
| $2005 / 2006$ | 4.91 | -0.33 | -0.33 | 0.11 |
| $2006 / 2007$ | 4.91 | -0.33 | -0.33 | 0.11 |
| $2007 / 2008$ | 6.89 | 1.65 | 1.65 | 2.72 |
| Sum | 31.44 |  | Sum | 3.27 |
| Mean |  |  | 5.24 |  |
| Standard Deviation |  |  |  |  |
| c. V |  | 0.8087 |  |  |

## Appendix: 18

## Single Borrower Limit (Based on Core Capital)

| NIBL $^{\|l\|}$ Year |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| X |  |  |  |  |
| X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |  |  |
| $2002 / 2003$ | 155.36 | -194.55 | -194.55 | 37850.84 |
| $2003 / 2004$ | 177.65 | -172.26 | -172.26 | 29673.65 |
| $2004 / 2005$ | 290.37 | -59.54 | -59.54 | 3545.36 |
| $2005 / 2006$ | 348.32 | -1.60 | -1.60 | 2.55 |
| $2006 / 2007$ | 463.05 | 113.14 | 113.14 | 12800.00 |
| $2007 / 2008$ | 664.73 | 314.81 | 314.81 | 99108.22 |
| Sum | 2099.48 |  | Sum | 182980.61 |
| Mean |  | 349.912917 |  |  |
| Standard Deviation |  |  |  | 191.3 |
| c.v |  |  |  |  |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | X | X- $\overline{\mathrm{x}}$ | X- $\overline{\mathrm{x}}$ | $(\mathrm{X}-\overline{\mathrm{x}})^{2}$ |
| $2002 / 2003$ | 319.21 | -118.87 | -118.87 | 14130.77 |
| $2003 / 2004$ | 359.86 | -78.22 | -78.22 | 6118.82 |
| $2004 / 2005$ | 402.63 | -35.46 | -35.46 | 1257.26 |
| $2005 / 2006$ | 457.70 | 19.61 | 19.61 | 384.63 |
| $2006 / 2007$ | 498.21 | 60.13 | 60.13 | 3615.27 |
| $2007 / 2008$ | 590.90 | 152.81 | 152.81 | 23352.30 |
| Sum | 2628.51 |  | Sum | 48859.06 |
| Mean |  |  | 438.0854167 |  |
| Standard Deviation |  |  |  |  |
| c.v |  |  | 98.85 |  |

## Ratios:

## Appendix: 19

## Total Loan to Total Assets

| NIBL |  |  |  |  | NABIL |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Total <br> Loan | Total <br> Assets | Ratios <br> $(\mathrm{X})$ | Year | Total <br> Loan | Total <br> Assets | Ratios <br> $(\mathrm{X})$ |  |
| $2002 / 2003$ | 5921.79 | 9014.25 | 65.69 | $2002 / 2003$ | 8113.68 | 16562.62 | 48.99 |  |
| $2003 / 2004$ | 7338.57 | 13255.50 | 55.36 | $2003 / 2004$ | 8548.66 | 16745.49 | 51.05 |  |
| $2004 / 2005$ | 10453.16 | 16274.06 | 64.23 | $2004 / 2005$ | 10946.74 | 17186.33 | 63.69 |  |
| $2005 / 2006$ | 13178.15 | 21330.14 | 61.78 | $2005 / 2006$ | 13278.78 | 22329.97 | 59.47 |  |
| $2006 / 2007$ | 17769.10 | 27590.84 | 64.40 | $2006 / 2007$ | 15903.02 | 27253.39 | 58.35 |  |
| $2007 / 2008$ | 27529.30 | 38873.31 | 70.82 | $2007 / 2008$ | 21759.46 | 37132.76 | 58.60 |  |
| Sum |  |  | 382.29 | Sum |  |  | 340.15 |  |
| Mean |  |  |  |  |  |  |  |  |

## Appendix: 20

## Total Loan to Total Deposit

| NIBL |  |  |  | NABIL |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Total <br> Loan | Total <br> Deposit | Ratios <br> $(\mathrm{X})$ | Year | Total <br> Loan | Total <br> Deposit | Ratios <br> $(\mathrm{X})$ |  |  |  |  |  |  |  |
| $2002 / 2003$ | 5921.79 | 7922.77 | 74.74 | $2002 / 2003$ | 8113.68 | 13447.66 | 60.34 |  |  |  |  |  |  |  |
| $2003 / 2004$ | 7338.57 | 11524.68 | 63.68 | $2003 / 2004$ | 8548.66 | 14119.03 | 60.55 |  |  |  |  |  |  |  |
| $2004 / 2005$ | 10453.16 | 14254.57 | 73.33 | $2004 / 2005$ | 10946.74 | 14586.61 | 75.05 |  |  |  |  |  |  |  |
| $2005 / 2006$ | 13178.15 | 18927.31 | 69.63 | $2005 / 2006$ | 13278.78 | 19347.40 | 68.63 |  |  |  |  |  |  |  |
| $2006 / 2007$ | 17769.10 | 24488.85 | 72.56 | $2006 / 2007$ | 15903.02 | 23342.28 | 68.13 |  |  |  |  |  |  |  |
| $2007 / 2008$ | 27529.30 | 34451.73 | 79.91 | $2007 / 2008$ | 21759.46 | 31915.05 | 68.18 |  |  |  |  |  |  |  |
| Sum |  |  |  |  |  |  |  |  | 433.84 | Sum |  |  |  | 400.87 |
| Mean |  |  |  |  |  |  |  |  | 72.31 | Mean |  |  |  |  |

## Appendix: 21

Total Loan to Total Loan and Investment

| NIBL |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Total Loan | Loan \& Investment | Ratios (X) |
| $2002 / 2003$ | 5921.79 | 7627.03 | 77.64 |
| $2003 / 2004$ | 7338.57 | 11201.05 | 65.52 |
| $2004 / 2005$ | 10453.16 | 14387.35 | 72.66 |
| $2005 / 2006$ | 13178.15 | 18781.02 | 70.17 |
| $2006 / 2007$ | 17769.10 | 24274.78 | 73.20 |
| $2007 / 2008$ | 27529.30 | 34403.32 | 80.02 |
| Sum |  |  |  |
| Mean |  |  |  |


| NABIL |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Total Loan | Loan \& Investment | Ratios (X) |
| $2002 / 2003$ | 8113.68 | 14144.85 | 57.36 |
| $2003 / 2004$ | 8548.66 | 14384.61 | 59.43 |
| $2004 / 2005$ | 10946.74 | 15213.97 | 71.95 |
| $2005 / 2006$ | 13278.78 | 19457.31 | 68.25 |
| $2006 / 2007$ | 15903.02 | 24848.33 | 64.00 |
| $2007 / 2008$ | 21759.46 | 31699.23 | 68.64 |
| Sum |  |  |  |
| Mean |  |  |  |

## Appendix: 22

## Classified Non-performing Loan Proportion

| NIBL |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Subs |  | Doubtful |  | Loss |  | Total: |  |
|  | Loan | Proportion | Loan | Proportion | Loan | Proportion |  |  |
| $2002 / 2003$ | 22.03 | 18.81 | 3.59 | 3.07 | 91.47 | 78.12 | 117.09 |  |
| $2003 / 2004$ | 10.84 | 5.97 | 63.88 | 35.21 | 106.72 | 58.82 | 181.44 |  |
| $2004 / 2005$ | 0.82 | 0.29 | 74.94 | 26.68 | 205.11 | 73.03 | 280.87 |  |
| $2005 / 2006$ | 44.24 | 16.23 | 0.50 | 0.18 | 227.76 | 83.58 | 272.50 |  |
| $2006 / 2007$ | 96.89 | 22.96 | 86.05 | 20.39 | 239.03 | 56.65 | 421.97 |  |
| $2007 / 2008$ | 61.74 | 19.95 | 20.72 | 6.70 | 227.01 | 73.35 | 309.47 |  |
| Sum |  | 84.23 |  | 92.23 |  | 423.55 |  |  |
| Mean |  | 14.0379 |  | 15.37098 |  | 70.591118 |  |  |


| NABIL |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Subs |  | Doubtful |  | Loss |  | Total: |  |
|  | Loan | Proportion | Loan | Proportion | Loan | Proportion |  |  |
| $2002 / 2003$ | 76.31 | 16.97 | 279.12 | 62.08 | 94.20 | 20.95 | 449.63 |  |
| $2003 / 2004$ | 22.14 | 7.72 | 65.55 | 22.87 | 198.99 | 69.41 | 286.68 |  |
| $2004 / 2005$ | 22.07 | 15.27 | 1.93 | 1.34 | 120.50 | 83.39 | 144.50 |  |
| $2005 / 2006$ | 62.67 | 34.32 | 29.56 | 16.19 | 90.39 | 49.50 | 182.62 |  |
| $2006 / 2007$ | 119.70 | 67.14 | 14.47 | 8.12 | 44.12 | 24.75 | 178.29 |  |
| $2007 / 2008$ | 66.22 | 41.11 | 42.58 | 26.43 | 52.29 | 32.46 | 161.09 |  |
|  |  | 182.53 |  | 137.01 |  | 280.46 |  |  |
|  |  | 30.421735 |  | 22.8356 |  | 46.74266 |  |  |

## Appendix: 23

Non Performing Loan to Total Loan

| NIBL |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Non-Performing Loan | Total Loan | Ratios (X) |
| $2002 / 2003$ | 117.09 | 5921.79 | 1.98 |
| $2003 / 2004$ | 181.44 | 7338.57 | 2.47 |
| $2004 / 2005$ | 280.87 | 10453.16 | 2.69 |
| $2005 / 2006$ | 272.49 | 13178.15 | 2.07 |
| $2006 / 2007$ | 421.97 | 17769.10 | 2.37 |
| $2007 / 2008$ | 309.47 | 27529.30 | 1.12 |
| Sum |  |  |  |
| Mean |  |  |  |


| NABIL |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Non-Performing Loan | Total Loan | Ratios (X) |
| $2002 / 2003$ | 449.63 | 8113.68 | 5.54 |
| $2003 / 2004$ | 286.68 | 8548.66 | 3.35 |
| $2004 / 2005$ | 144.50 | 10946.74 | 1.32 |
| $2005 / 2006$ | 182.62 | 13278.78 | 1.38 |
| $2006 / 2007$ | 178.29 | 15903.02 | 1.12 |
| $2007 / 2008$ | 161.09 | 21759.46 | 0.74 |
| Sum |  |  |  |
| Mean |  |  |  |

## Appendix: 24

## Loan Loss Provision to Loan and Advance

| NIBL |  |  |  | NABIL |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Loan Loss <br> Provision |  <br> Advances | Ratios <br> $(\mathrm{X})$ | Year | Loan Loss <br> Provision |  <br> Advances | Ratios <br> $(\mathrm{X})$ |  |  |
| $2002 / 2003$ | 149.65 | 5921.79 | 2.53 | $2002 / 2003$ | 357.73 | 8113.68 | 4.41 |  |  |
| $2003 / 2004$ | 208.44 | 7338.57 | 2.84 | $2003 / 2004$ | 358.66 | 8548.66 | 4.20 |  |  |
| $2004 / 2005$ | 327.11 | 10453.16 | 3.13 | $2004 / 2005$ | 360.57 | 10946.74 | 3.29 |  |  |
| $2005 / 2006$ | 401.94 | 13178.15 | 3.05 | $2005 / 2006$ | 356.24 | 13278.78 | 2.68 |  |  |
| $2006 / 2007$ | 482.67 | 17769.10 | 2.72 | $2006 / 2007$ | 357.24 | 15903.02 | 2.25 |  |  |
| $2007 / 2008$ | 532.65 | 27529.30 | 1.93 | $2007 / 2008$ | 394.41 | 21759.46 | 1.81 |  |  |
| Sum |  |  |  |  |  |  |  |  |  |
| Mean |  |  |  | 16.20 | Mean |  |  |  | 18.64 |

## Appendix: 25

Loan Loss Provision to Total Income

| NIBL |  |  |  | NABIL |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Loan Loss <br> Provision | Total <br> Income | Ratios <br> $(\mathrm{X})$ | Year | Loan Loss <br> Provision | Total <br> Income | Ratios <br> $(\mathrm{X})$ |
| $2002 / 2003$ | 149.65 | 577.93 | 25.89 | $2002 / 2003$ | 357.73 | 1427.45 | 25.06 |
| $2003 / 2004$ | 208.44 | 913.71 | 22.81 | $2003 / 2004$ | 358.66 | 1429.05 | 25.10 |
| $2004 / 2005$ | 327.11 | 1145.63 | 28.55 | $2004 / 2005$ | 360.57 | 1510.68 | 23.87 |
| $2005 / 2006$ | 401.94 | 1461.43 | 27.50 | $2005 / 2006$ | 356.24 | 1751.21 | 20.34 |
| $2006 / 2007$ | 482.67 | 1999.76 | 24.14 | $2006 / 2007$ | 357.24 | 2092.81 | 17.07 |
| $2007 / 2008$ | 532.65 | 2750.41 | 19.37 | $2007 / 2008$ | 394.41 | 2504.04 | 15.75 |
| Sum |  |  |  |  |  |  |  |
| Mean |  |  |  |  |  |  |  |

## Appendix: 26

## Classified Loan Loss Provision Proportion

| NIBL |  |  |  |  |  |  |  |  |  | NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pass | Re- <br> structured | Sub- <br> standard | Doubtful | Loss | Pass | Re- <br> structured | Sub- <br> standard | Doubtful | Loss |  |  |  |  |
| $2002 / 03$ | 38.23 | 0 | 1.66 | 0.31 | 59.8 | 34.27 | 0 | 5.12 | 38.19 | 22.42 |  |  |  |  |
| $2003 / 04$ | 33.98 | 0 | 1.31 | 14.34 | 50.37 | 35.61 | 0 | 1.43 | 9.03 | 53.93 |  |  |  |  |
| $2004 / 05$ | 30.89 | 0 | 0.07 | 11.48 | 57.56 | 65.27 | 0 | 1.9 | 0.39 | 32.44 |  |  |  |  |
| $2005 / 06$ | 32.04 | 9.05 | 2.75 | 0.06 | 56.1 | 36.59 | 23.57 | 11.95 | 3.9 | 23.99 |  |  |  |  |
| $2006 / 07$ | 35.95 | 0.97 | 5.09 | 8.93 | 49.06 | 49.13 | 22.35 | 15.85 | 1.99 | 10.68 |  |  |  |  |
| $2007 / 08$ | 51.53 | 1 | 2.9 | 1.95 | 42.62 | 73.96 | 0.77 | 8.19 | 5.39 | 11.69 |  |  |  |  |
| Sum | 222.6 | 11.02 | 13.78 | 37.07 | 315.51 | 294.8 | 46.69 | 44.44 | 58.89 | 155.15 |  |  |  |  |
| Mean | 37.1 | 1.837 | 2.29 | 6.1783 | 52.58 | 49.14 | 7.7817 | 7.40667 | 9.815 | 25.85 |  |  |  |  |

## Appendix: 27

## Income from Loan to Total Income

| NIBL |  |  |  | NABIL |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Income <br> From <br> Loan | Total <br> Income | Ratios <br> $(\mathrm{X})$ | Year | Income <br> From Loan | Total <br> Income | Ratios <br> $(\mathrm{X})$ |  |  |
| $2002 / 2003$ | 422.72 | 577.93 | 73.14 | $2002 / 2003$ | 782.15 | 1427.45 | 54.79 |  |  |
| $2003 / 2004$ | 664.23 | 913.71 | 72.70 | $2003 / 2004$ | 768.85 | 1429.05 | 53.80 |  |  |
| $2004 / 2005$ | 770.17 | 1145.63 | 67.23 | $2004 / 2005$ | 837.96 | 1510.68 | 55.47 |  |  |
| $2005 / 2006$ | 965.61 | 1461.43 | 66.07 | $2005 / 2006$ | 994.74 | 1751.21 | 56.80 |  |  |
| $2006 / 2007$ | 1302.96 | 1999.76 | 65.16 | $2006 / 2007$ | 1174.17 | 2092.81 | 56.10 |  |  |
| $2007 / 2008$ | 1908.22 | 2750.41 | 69.38 | $2007 / 2008$ | 1502.61 | 2504.04 | 60.01 |  |  |
| Sum |  |  |  | 413.67 | Sum |  |  |  | 336.98 |
| Mean |  |  |  | 68.95 | Mean |  |  |  | 56.16 |

## Appendix: 28

## Interest suspense to Income from Loan and Advance and Bills purchase

| NIBL |  |  |  | NABIL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Interest <br> Suspense | Total Interest <br> Income From <br>  <br> Bill purchase | Ratios <br> (X) | Year | Interest <br> Suspense | Total Interest <br> Income From <br>  <br> Bill purchase | Ratios <br> $(\mathrm{X})$ |  |  |  |
| $2002 / 2003$ | 48.21 | 422.72 | 11.40 | $2002 / 2003$ | 100.68 | 782.15 | 12.87 |  |  |  |
| $2003 / 2004$ | 30.74 | 664.23 | 4.63 | $2003 / 2004$ | 112.45 | 768.85 | 14.63 |  |  |  |
| $2004 / 2005$ | 38.38 | 770.17 | 4.98 | $2004 / 2005$ | 122.31 | 837.96 | 14.60 |  |  |  |
| $2005 / 2006$ | 77.94 | 965.61 | 8.07 | $2005 / 2006$ | 109.67 | 994.74 | 11.02 |  |  |  |
| $2006 / 2007$ | 90.44 | 1302.96 | 6.94 | $2006 / 2007$ | 112.19 | 1174.17 | 9.55 |  |  |  |
| $2007 / 2008$ | 106.68 | 1908.22 | 5.59 | $2007 / 2008$ | 128.04 | 1502.61 | 8.52 |  |  |  |
| Sum |  |  |  | 41.62 | Sum |  |  |  |  | 71.20 |
| Mean |  |  | 6.94 | Mean |  |  |  |  |  |  |

Appendix: 29
Interest suspense to Total Interest Income

| NIBL |  |  |  | NABIL |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Interest <br> Suspense | Total <br> Interest <br> Income | Ratios <br> $(\mathrm{X})$ | Year | Interest <br> Suspense | Total <br> Interest <br> Income | Ratios <br> $(\mathrm{X})$ |  |  |
| $2002 / 2003$ | 48.21 | 459.51 | 10.49 | $2002 / 2003$ | 100.68 | 1017.87 | 9.89 |  |  |
| $2003 / 2004$ | 30.74 | 731.40 | 4.20 | $2003 / 2004$ | 112.45 | 1001.62 | 11.23 |  |  |
| $2004 / 2005$ | 38.38 | 886.80 | 4.33 | $2004 / 2005$ | 122.31 | 1068.75 | 11.44 |  |  |
| $2005 / 2006$ | 77.94 | 1172.74 | 6.65 | $2005 / 2006$ | 109.67 | 1310.00 | 8.37 |  |  |
| $2006 / 2007$ | 90.44 | 1584.99 | 5.71 | $2006 / 2007$ | 112.19 | 1587.76 | 7.07 |  |  |
| $2007 / 2008$ | 106.68 | 2194.28 | 4.86 | $2007 / 2008$ | 128.04 | 1978.70 | 6.47 |  |  |
| Sum |  |  |  | 36.24 | Sum |  |  |  | 54.47 |
| Mean |  |  | 6.04 | Mean |  |  |  |  |  |

## Correlation:

## Appendix: 30

## Correlation between Loan \& Advances and Deposit

| NIBL |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{gathered} \text { Loan \& } \\ \text { Advance (X) } \end{gathered}$ | Deposit <br> (Y) | X, Y | X(2) | $\mathrm{Y}(2)$ |
| 2002/2003 | 5921.79 | 7922.77 | 46916980.16 | 35067596.80 | 62770284.47 |
| 2003/2004 | 7338.57 | 11524.68 | 84574670.91 | 53854609.64 | 132818249.10 |
| 2004/2005 | 10453.16 | 14254.57 | 149005300.94 | 109268553.99 | 203192765.88 |
| 2005/2006 | 13178.15 | 18927.31 | 249426930.28 | 173663637.42 | 358243063.84 |
| 2006/2007 | 17769.10 | 24488.85 | 435144824.54 | 315740914.81 | 599703774.32 |
| 2007/2008 | 27529.30 | 34451.73 | 948432010.69 | 757862358.49 | 1186921699.99 |
| Sum | 82190.07 | 111569.91 | 1913500717.51 | 1445457671.16 | 2543649837.61 |
| $\mathrm{r}=0.9949$ |  |  |  |  |  |
| $\mathrm{r}^{2}=0.9898$ |  |  |  |  |  |
| P.E $=0.0028015$ |  |  |  |  |  |
| $6 \times$ P.E $=0.01681$ |  |  |  |  |  |


| NABIL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  <br> Advance (X) | Deposit(Y) | X, Y | X(2) | $\mathrm{Y}(2)$ |  |
| $2002 / 2003$ | 8113.68 | 13447.66 | 109110009.99 | 65831803.14 | 180839559.48 |  |
| $2003 / 2004$ | 8548.66 | 14119.03 | 120698787.00 | 73079587.80 | 199347008.14 |  |
| $2004 / 2005$ | 10946.74 | 14586.61 | 159675827.15 | 119831116.63 | 212769191.29 |  |
| $2005 / 2006$ | 13278.78 | 19347.40 | 256909868.17 | 176325998.29 | 374321886.76 |  |
| $2006 / 2007$ | 15903.02 | 23342.28 | 371212745.69 | 252906045.12 | 544862035.60 |  |
| $2007 / 2008$ | 21759.46 | 31915.05 | 694454253.87 | 473474099.49 | 1018570416.50 |  |
| Sum | $\mathbf{7 8 5 5 0 . 3 4}$ | $\mathbf{1 1 6 7 5 8 . 0 3}$ | $\mathbf{1 7 1 2 0 6 1 4 9 1 . 8 7}$ | $\mathbf{1 1 6 1 4 4 8 6 5 0 . 4 7}$ | $\mathbf{2 5 3 0 7 1 0 0 9 7 . 7 7}$ |  |
| $\mathrm{r}=0.9890$ |  |  |  |  |  |  |
| $\mathrm{r}=0.9781$ |  |  |  |  |  |  |
| P.E $=0.0060246$ |  |  |  |  |  |  |
| $6 \times$ P.E $=0.03615$ |  |  |  |  |  |  |

## Appendix: 31

## Correlation between Loan \& Advances and Non-performing Loan

| NIBL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  <br> Advance (X) | Non-Performing <br> Loan(Y) | X, Y | X(2) | Y(2) |  |
| $2002 / 2003$ | 5921.79 | 117.09 | 693382.39 | 35067596.80 | 13710.07 |  |
| $2003 / 2004$ | 7338.57 | 181.44 | 1331510.14 | 53854609.64 | 32920.47 |  |
| $2004 / 2005$ | 10453.16 | 280.87 | 2935979.05 | 109268553.99 | 78887.96 |  |
| $2005 / 2006$ | 13178.15 | 272.49 | 3590914.09 | 173663637.42 | 74250.80 |  |
| $2006 / 2007$ | 17769.10 | 421.97 | 7498027.13 | 315740914.81 | 178058.68 |  |
| $2007 / 2008$ | 27529.30 | 309.47 | 8519492.47 | 757862358.49 | 95771.68 |  |
| Sum | $\mathbf{8 2 1 9 0 . 0 7}$ | $\mathbf{1 5 8 3 . 3 3}$ | $\mathbf{2 4 5 6 9 3 0 5 . 2 7}$ | $\mathbf{1 4 4 5 4 5 7 6 7 1 . 1 6}$ | $\mathbf{4 7 3 5 9 9 . 6 6}$ |  |
| $\mathrm{r}=0.6822$ | $\mathrm{r}^{2}=0.4654$ |  |  |  |  |  |
| P.E $=0.147210$ | $6 \times$ P.E $=0.88326$ |  |  |  |  |  |


| NABIL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  <br> Advance (X) | Non-Performing <br> Loan (Y) | X, Y | X(2) | Y(2) |  |
| $2002 / 2003$ | 8113.68 | 449.63 | 3648153.94 | 65831803.14 | 202167.14 |  |
| $2003 / 2004$ | 8548.66 | 286.68 | 2450729.85 | 73079587.80 | 82185.42 |  |
| $2004 / 2005$ | 10946.74 | 144.50 | 1581803.93 | 119831116.63 | 20880.25 |  |
| $2005 / 2006$ | 13278.78 | 182.62 | 2424970.80 | 176325998.29 | 33350.06 |  |
| $2006 / 2007$ | 15903.02 | 178.29 | 2835349.44 | 252906045.12 | 31787.32 |  |
| $2007 / 2008$ | 21759.46 | 161.09 | 3505231.41 | 473474099.49 | 25949.99 |  |
| Sum | $\mathbf{7 8 5 5 0 . 3 4}$ | $\mathbf{1 4 0 2 . 8 1}$ | $\mathbf{1 6 4 4 6 2 3 9 . 3 7}$ | $\mathbf{1 1 6 1 4 4 8 6 5 0 . 4 7}$ | $\mathbf{3 9 6 3 2 0 . 1 9}$ |  |
| $\mathrm{r}=-0.6363$ |  |  |  |  |  |  |
| $\mathrm{r}^{2}=0.4049$ | P.E $=0.16387$ |  |  |  |  |  |
| $6 \times$ P.E $=0.9832$ |  |  |  |  |  |  |

## Appendix: 32

## Correlation between Loan \& Advances and Loan Loss Provision

| NIBL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  <br> Advance <br> $(\mathrm{X})$ | Loan Loss <br> Provision <br> $(\mathrm{Y})$ | $\mathrm{X}, \mathrm{Y}$ | $\mathrm{X}(2)$ | $\mathrm{Y}(2)$ |  |
| $2002 / 2003$ | 5921.79 | 149.65 | 886195.87 | 35067596.80 | 22395.12 |  |
| $2003 / 2004$ | 7338.57 | 208.44 | 1529651.53 | 53854609.64 | 43447.23 |  |
| $2004 / 2005$ | 10453.16 | 327.11 | 3419333.17 | 109268553.99 | 107000.95 |  |
| $2005 / 2006$ | 13178.15 | 401.94 | 5296825.61 | 173663637.42 | 161555.76 |  |
| $2006 / 2007$ | 17769.10 | 482.67 | 8576611.50 | 315740914.81 | 232970.33 |  |
| $2007 / 2008$ | 27529.30 | 532.65 | 14663481.65 | 757862358.49 | 283716.02 |  |
| Sum | $\mathbf{8 2 1 9 0 . 0 7}$ | $\mathbf{2 1 0 2 . 4 6}$ | $\mathbf{3 4 3 7 2 0 9 9 . 3 2}$ | $\mathbf{1 4 4 5 4 5 7 6 7 1 . 1 6}$ | $\mathbf{8 5 1 0 8 5 . 4 2}$ |  |
| $\mathrm{r}=0.9216$ |  |  |  |  |  |  |
| $\mathrm{r}=0.8493$ | P.E $=0.04148$ |  |  |  |  |  |
| $6 \times$ P.E $=0.2489$ |  |  |  |  |  |  |


| NABIL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  <br> Advance <br> (X) | Loan Loss <br> Provision (Y) | X, Y | X(2) | $\mathrm{Y}(2)$ |  |
| $2002 / 2003$ | 8113.68 | 357.73 | 2902506.75 | 65831803.14 | 127970.75 |  |
| $2003 / 2004$ | 8548.66 | 358.66 | 3066062.40 | 73079587.80 | 128637.00 |  |
| $2004 / 2005$ | 10946.74 | 360.57 | 3947066.04 | 119831116.63 | 130010.72 |  |
| $2005 / 2006$ | 13278.78 | 356.24 | 4730432.59 | 176325998.29 | 126906.94 |  |
| $2006 / 2007$ | 15903.02 | 357.24 | 5681194.86 | 252906045.12 | 127620.42 |  |
| $2007 / 2008$ | 21759.46 | 394.41 | 8582148.62 | 473474099.49 | 155559.25 |  |
| Sum | $\mathbf{7 8 5 5 0 . 3 4}$ | $\mathbf{2 1 8 4 . 8 5}$ | $\mathbf{2 8 9 0 9 4 1 1 . 2 5}$ | $\mathbf{1 1 6 1 4 4 8 6 5 0 . 4 7}$ | $\mathbf{7 9 6 7 0 5 . 0 8}$ |  |
| $\mathrm{r}=0.7960$ |  |  |  |  |  |  |
| $\mathrm{r}^{2}=0.6336$ |  |  |  |  |  |  |
| P.E $=0.1009$ |  |  |  |  |  |  |
| $6 \times$ P.E $=0.60533$ |  |  |  |  |  |  |

## Appendix: 33

## Correlation between Non-performing Loan and Loan Loss Provision

| NIBL |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Non- <br> Performing <br> Loan (X) | Loan Loss <br> Provision <br> $(Y)$ | X, Y | $\mathrm{X}(2)$ | $\mathrm{Y}(2)$ |
| $2002 / 2003$ | 117.09 | 149.65 | 17522.52 | 13710.07 | 22395.12 |
| $2003 / 2004$ | 181.44 | 208.44 | 37819.35 | 32920.47 | 43447.23 |
| $2004 / 2005$ | 280.87 | 327.11 | 91875.39 | 78887.96 | 107000.95 |
| $2005 / 2006$ | 272.49 | 401.94 | 109524.63 | 74250.80 | 161555.76 |
| $2006 / 2007$ | 421.97 | 482.67 | 203672.26 | 178058.68 | 232970.33 |
| $2007 / 2008$ | 309.47 | 532.65 | 164839.20 | 95771.68 | 283716.02 |
| Sum | $\mathbf{1 5 8 3 . 3 3}$ | $\mathbf{2 1 0 2 . 4 6}$ | $\mathbf{6 2 5 2 5 3 . 3 4}$ | $\mathbf{4 7 3 5 9 9 . 6 6}$ | $\mathbf{8 5 1 0 8 5 . 4 2}$ |
| $\mathrm{r}=0.8819$ | $\mathrm{r}^{2}=0.7777$ |  |  |  |  |
| P.E $=0.061200$ |  |  |  |  |  |
| $6 \times$ P.E $=0.3672$ |  |  |  |  |  |


| NABIL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Non- <br> Performing <br> Loan (X) | Loan Loss <br> Provision <br> $(\mathrm{Y})$ | $\mathrm{X}, \mathrm{Y}$ | $\mathrm{X}(2)$ | $\mathrm{Y}(2)$ |  |
| $2002 / 2003$ | 449.63 | 357.73 | 160846.14 | 202167.14 | 127970.75 |  |
| $2003 / 2004$ | 286.68 | 358.66 | 102820.65 | 82185.42 | 128637.00 |  |
| $2004 / 2005$ | 144.50 | 360.57 | 52102.37 | 20880.25 | 130010.72 |  |
| $2005 / 2006$ | 182.62 | 356.24 | 65056.55 | 33350.06 | 126906.94 |  |
| $2006 / 2007$ | 178.29 | 357.24 | 63692.32 | 31787.32 | 127620.42 |  |
| $2007 / 2008$ | 161.09 | 394.41 | 63535.51 | 25949.99 | 155559.25 |  |
| Sum | $\mathbf{1 4 0 2 . 8 1}$ | $\mathbf{2 1 8 4 . 8 5}$ | $\mathbf{5 0 8 0 5 3 . 5 3}$ | $\mathbf{3 9 6 3 2 0 . 1 9}$ | $\mathbf{7 9 6 7 0 5 . 0 8}$ |  |
| $\mathrm{r}=-0.3178$ |  |  |  |  |  |  |
| $\mathrm{r}^{2}=0.1010$ |  |  |  |  |  |  |
| P.E $=0.24755$ |  |  |  |  |  |  |
| $6 \times$ P.E $=1.4853$ |  |  |  |  |  |  |

## Appendix: 34

## Correlation between Non-performing Loan and Interest Suspense

| NIBL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Non-Performing <br> Loan (X) | Interest <br> Suspense (Y) | $\mathrm{X}, \mathrm{Y}$ | $\mathrm{X}(2)$ | $\mathrm{Y}(2)$ |  |
| $2002 / 2003$ | 117.09 | 48.21 | 5644.91 | 13710.07 | 2324.20 |  |
| $2003 / 2004$ | 181.44 | 30.74 | 5577.47 | 32920.47 | 944.95 |  |
| $2004 / 2005$ | 280.87 | 38.38 | 10779.79 | 78887.96 | 1473.02 |  |
| $2005 / 2006$ | 272.49 | 77.94 | 21237.87 | 74250.80 | 6074.64 |  |
| $2006 / 2007$ | 421.97 | 90.44 | 38162.97 | 178058.68 | 8179.39 |  |
| $2007 / 2008$ | 309.47 | 106.68 | 33014.26 | 95771.68 | 11380.62 |  |
| Sum | $\mathbf{1 5 8 3 . 3 3}$ | $\mathbf{3 9 2 . 3 9}$ | $\mathbf{1 1 4 4 1 7 . 2 6}$ | $\mathbf{4 7 3 5 9 9 . 6 6}$ | $\mathbf{3 0 3 7 6 . 8 4}$ |  |
| $\mathrm{r}=0.6703$ | $\mathrm{r}^{2}=0.4493$ | P.E $=0.1516$ |  |  |  |  |
| $6 \times$ P.E $=0.9098$ |  |  |  |  |  |  |


| NABIL |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Non-Performing <br> Loan (X) | Interest <br> Suspense (Y) | X, Y | X(2) | Y(2) |
| $2002 / 2003$ | 449.63 | 100.68 | 45268.75 | 202167.14 | 10136.46 |
| $2003 / 2004$ | 286.68 | 112.45 | 32237.17 | 82185.42 | 12645.00 |
| $2004 / 2005$ | 144.50 | 122.31 | 17673.80 | 20880.25 | 14959.74 |
| $2005 / 2006$ | 182.62 | 109.67 | 20027.94 | 33350.06 | 12027.51 |
| $2006 / 2007$ | 178.29 | 112.19 | 20002.36 | 31787.32 | 12586.60 |
| $2007 / 2008$ | 161.09 | 128.04 | 20625.96 | 25949.99 | 16394.24 |
| Sum | $\mathbf{1 4 0 2 . 8 1}$ | $\mathbf{6 8 5 . 3 4}$ | $\mathbf{1 5 5 8 3 5 . 9 6}$ | $\mathbf{3 9 6 3 2 0 . 1 9}$ | $\mathbf{7 8 7 4 9 . 5 5}$ |
| $\mathrm{r}=-0.7778$ | $\mathrm{r}^{2}=0.6050$ | P.E $=0.108776$ |  |  |  |
| $6 \times$ P.E $=0.65265$ |  |  |  |  |  |

## Appendix: 35

Correlation between Income from Loan and Net Profit

| NIBL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Income <br> From Loan <br> $(\mathrm{X})$ | Net Profit <br> $(\mathrm{Y})$ | $\mathrm{X}, \mathrm{Y}$ | $\mathrm{X}(2)$ | $\mathrm{Y}(2)$ |  |
| $2002 / 2003$ | 422.72 | 116.82 | 49382.15 | 178692.20 | 13646.91 |  |
| $2003 / 2004$ | 664.23 | 152.67 | 101407.99 | 441201.49 | 23308.13 |  |
| $2004 / 2005$ | 770.17 | 232.15 | 178794.97 | 593161.83 | 53893.62 |  |
| $2005 / 2006$ | 965.61 | 350.54 | 338484.93 | 932402.67 | 122878.29 |  |
| $2006 / 2007$ | 1302.96 | 501.40 | 653304.14 | 1697704.76 | 251401.96 |  |
| $2007 / 2008$ | 1908.22 | 696.73 | 1329514.12 | 3641303.57 | 485432.69 |  |
| Sum | $\mathbf{6 0 3 3 . 9 1}$ | $\mathbf{2 0 5 0 . 3 1}$ | $\mathbf{2 6 5 0 8 8 8 . 3 0}$ | $\mathbf{7 4 8 4 4 6 6 . 5 2}$ | $\mathbf{9 5 0 5 6 1 . 6 1}$ |  |
| $\mathrm{r}=0.9899$ | $\mathrm{r}^{2}=0.9799$ |  |  |  |  |  |
| P.E $=0.005534$ |  |  |  |  |  |  |
| $6 \times$ P.E $=0.0332055$ |  |  |  |  |  |  |


| NABIL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Income <br> From Loan <br> $(\mathrm{X})$ | Net Profit <br> (Y) | $\mathrm{X}, \mathrm{Y}$ | $\mathrm{X}(2)$ | $\mathrm{Y}(2)$ |  |
| $2002 / 2003$ | 782.15 | 416.23 | 325554.29 | 611758.62 | 173247.41 |  |
| $2003 / 2004$ | 768.85 | 455.31 | 350065.09 | 591130.32 | 207307.20 |  |
| $2004 / 2005$ | 837.96 | 518.64 | 434599.57 | 702176.96 | 268987.45 |  |
| $2005 / 2006$ | 994.74 | 635.26 | 631918.53 | 989507.67 | 403555.27 |  |
| $2006 / 2007$ | 1174.17 | 673.96 | 791343.61 | 1378675.19 | 454222.08 |  |
| $2007 / 2008$ | 1502.61 | 746.47 | 1121653.29 | 2257836.81 | 557217.46 |  |
| Sum | $\mathbf{6 0 6 0 . 4 8}$ | $\mathbf{3 4 4 5 . 8 7}$ | $\mathbf{3 6 5 5 1 3 4 . 3 9}$ | $\mathbf{6 5 3 1 0 8 5 . 5 8}$ | $\mathbf{2 0 6 4 5 3 6 . 8 7}$ |  |
| $\mathrm{r}=0.9325$ |  |  |  |  |  |  |
| $\mathrm{r}^{2}=0.8696$ |  |  |  |  |  |  |
| P.E $=0.035919$ |  |  |  |  |  |  |
| $6 \times$ P.E $=0.215516$ |  |  |  |  |  |  |

## Calculation of Best Fit Straight Line Equation and Trend Values:

## Appendix: 36

Calculation of best fit straight line equation and trend values of Loan \& Advances

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year (t) | Loan \& Advances (y) | $\mathrm{x}=\mathrm{t}-2005$ | x2 | x*y |
| 2002/2003 | 5921.79 | -2 | 4 | -11843.58 |
| 2003/2004 | 7338.57 | -1 | 1 | -7338.57 |
| 2004/2005 | 10453.16 | 0 | 0 | 0 |
| 2005/2006 | 13178.15 | 1 | 1 | 13178.15 |
| 2006/2007 | 17769.10 | 2 | 4 | 35538.2 |
| 2007/2008 | 27529.30 | 3 | 9 | 82587.9 |
| SUM | 82190.07 | 3 | 19 | 112122.1 |
| $\mathrm{Yc}=\mathrm{a}+\mathrm{bx}$ |  |  |  |  |
| $a=$ sumY/n |  | 13698.345 |  |  |
| $\mathrm{b}=$ sumxy/sum $\times 2$ |  | 5901.16316 |  |  |

Trend Value for period 2008/2009 to 2012/2013

| Year | X | Trend Values |
| :---: | :---: | :---: |
| $2008 / 2009$ | 4 | 37303 |
| $2009 / 2010$ | 5 | 43204.16 |
| $2010 / 2011$ | 6 | 49105.32 |
| $2011 / 2012$ | 7 | 55006.49 |
| $2012 / 2013$ | 8 | 60907.65 |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year (t) | Loan \& Advances (y) | $\mathrm{x}=\mathrm{t}-2005$ | x2 | x*y |
| 2002/2003 | 8113.68 | -2 | 4 | -16227.4 |
| 2003/2004 | 8548.66 | -1 | 1 | -8548.66 |
| 2004/2005 | 10946.74 | 0 | 0 | 0 |
| 2005/2006 | 13278.78 | 1 | 1 | 13278.78 |
| 2006/2007 | 15903.02 | 2 | 4 | 31806.04 |
| 2007/2008 | 21759.46 | 3 | 9 | 65278.38 |
| SUM | 78550.34 | 3 | 19 | 85587.18 |
| $\mathrm{Yc}=\mathrm{a}+\mathrm{bx}$ |  |  |  |  |
| $\mathrm{a}=$ sumY/n |  | 13091.723 |  |  |
| $b=$ sumxy/sum $\times 2$ |  | 4504.5884 |  |  |

Trend Value for period 2008/2009 to 2012/2013

| Year | X | Trend Values |
| :---: | :---: | :---: |
| $2008 / 2009$ | 4 | 31110.08 |
| $2009 / 2010$ | 5 | 35614.67 |
| $2010 / 2011$ | 6 | 40119.25 |
| $2011 / 2012$ | 7 | 44623.84 |
| $2012 / 2013$ | 8 | 49128.43 |

## Appendix: 37

Calculation of best fit straight line equation and trend values of Non-performing Loan

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year (t) | Non performing loan (y) | $\mathrm{x}=\mathrm{t}-2005$ | x2 | x*y |
| 2002/2003 | 117.09 | -2 | 4 | -234.18 |
| 2003/2004 | 181.44 | -1 | 1 | -181.44 |
| 2004/2005 | 280.87 | 0 | 0 | 0 |
| 2005/2006 | 272.49 | 1 | 1 | 272.49 |
| 2006/2007 | 421.97 | 2 | 4 | 843.94 |
| 2007/2008 | 309.47 | 3 | 9 | 928.41 |
| SUM | 1583.33 | 3 | 19 | 1629.22 |
| $\mathrm{Yc}=\mathrm{a}+\mathrm{bx}$ |  |  |  |  |
|  | $\mathrm{a}=$ sumY/n | 263.888 |  |  |
| $\mathrm{b}=$ sumxy/sum $\times 2$ |  | 85.7484 |  |  |

Trend Value for period 2008/2009 to 2012/2013

| Year | X | Trend Values |
| :---: | :---: | :---: |
| $2008 / 2009$ | 4 | 606.88202 |
| $2009 / 2010$ | 5 | 692.63044 |
| $2010 / 2011$ | 6 | 778.37886 |
| $2011 / 2012$ | 7 | 864.12728 |
| $2012 / 2013$ | 8 | 949.8757 |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year (t) | Non performing loan (y) | $\mathrm{x}=\mathrm{t}-2005$ | x2 | x*y |
| 2002/2003 | 449.63 | -2 | 4 | -899.26 |
| 2003/2004 | 286.68 | -1 | 1 | -286.68 |
| 2004/2005 | 144.50 | 0 | 0 | 0 |
| 2005/2006 | 182.62 | 1 | 1 | 182.62 |
| 2006/2007 | 178.29 | 2 | 4 | 356.58 |
| 2007/2008 | 161.09 | 3 | 9 | 483.27 |
| SUM | 1402.81 | 3 | 19 | -163.47 |
| $\mathrm{Yc}=\mathrm{a}+\mathrm{bx}$ |  |  |  |  |
| $\mathrm{a}=$ sumY/n |  | 233.80167 |  |  |
| $\mathrm{b}=$ sumxy/sum $\times 2$ |  | -8.603684 |  |  |

Trend Value for period 2008/2009 to 2012/2013

| Year | X | Trend Values |
| :---: | :---: | :---: |
| $2008 / 2009$ | 4 | 199.3869 |
| $2009 / 2010$ | 5 | 190.7832 |
| $2010 / 2011$ | 6 | 182.1796 |
| $2011 / 2012$ | 7 | 173.5759 |
| $2012 / 2013$ | 8 | 164.9722 |

## Appendix: 38

Calculation of best fit straight line equation and trend values of Interest Suspense

| NIBL |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year (t) | Interest Suspense (y) | $\mathrm{x}=\mathrm{t}-2005$ | x 2 | x * y |  |  |  |  |  |  |
| $2002 / 2003$ | 48.21 | -2 | 4 | -96.42 |  |  |  |  |  |  |
| $2003 / 2004$ | 30.74 | -1 | 1 | -30.74 |  |  |  |  |  |  |
| $2004 / 2005$ | 38.38 | 0 | 0 | 0 |  |  |  |  |  |  |
| $2005 / 2006$ | 77.94 | 1 | 1 | 77.94 |  |  |  |  |  |  |
| $2006 / 2007$ | 90.44 | 2 | 4 | 180.88 |  |  |  |  |  |  |
| $2007 / 2008$ | 106.68 | 3 | 9 | 320.04 |  |  |  |  |  |  |
| SUM | $\mathbf{3 9 2 . 3 9}$ | $\mathbf{3}$ | $\mathbf{1 9}$ | $\mathbf{4 5 1 . 7}$ |  |  |  |  |  |  |
| Yc = a + bx |  |  |  |  |  | 65.3983 |  |  |  |  |
| $\mathrm{a}=$ sumY/n |  |  |  |  |  | $\mathrm{b}=$ sumxy/sum $\times 2$ |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

Trend Value for period 2008/2009 to 2012/2013

| Year | X | Trend Values |
| :---: | :---: | :---: |
| $2008 / 2009$ | 4 | 160.49307 |
| $2009 / 2010$ | 5 | 184.26675 |
| $2010 / 2011$ | 6 | 208.04044 |
| $2011 / 2012$ | 7 | 231.81412 |
| $2012 / 2013$ | 8 | 255.58781 |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year (t) | Interest Suspenses (y) | $\mathrm{x}=\mathrm{t}-2005$ | x 2 | x * C |
| $2002 / 2003$ | 100.68 | -2 | 4 | -201.36 |
| $2003 / 2004$ | 112.45 | -1 | 1 | -112.45 |
| $2004 / 2005$ | 122.31 | 0 | 0 | 0 |
| $2005 / 2006$ | 109.67 | 1 | 1 | 109.67 |
| $2006 / 2007$ | 112.19 | 2 | 4 | 224.38 |
| $2007 / 2008$ | 128.04 | 3 | 9 | 384.12 |
| SUM | $\mathbf{6 8 5 . 3 4}$ | $\mathbf{3}$ | $\mathbf{1 9}$ | $\mathbf{4 0 4 . 3 6}$ |
| Yc = a + bx |  |  |  |  |
| $\mathrm{a}=$ sumY/n |  |  |  |  |
| $\mathrm{b}=$ sumxy/sum $\times 2$ | 114.22333 |  |  |  |

Trend Value for period 2008/2009 to 2012/2013

| Year | X | Trend Values |
| :---: | :---: | :---: |
| $2008 / 2009$ | 4 | 199.3518 |
| $2009 / 2010$ | 5 | 220.6339 |
| $2010 / 2011$ | 6 | 241.916 |
| $2011 / 2012$ | 7 | 263.1981 |
| $2012 / 2013$ | 8 | 284.4802 |

## Appendix: 39

Calculation of best fit straight line equation and trend values of Loan Loss Provision

| NIBL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year (t) | Loan Loss Provision (y) | $\mathrm{x}=\mathrm{t}-2005$ | x2 | x*y |
| 2002/2003 | 149.65 | -2 | 4 | -299.3 |
| 2003/2004 | 208.44 | -1 | 1 | -208.44 |
| 2004/2005 | 327.11 | 0 | 0 | 0 |
| 2005/2006 | 401.94 | 1 | 1 | 401.94 |
| 2006/2007 | 482.67 | 2 | 4 | 965.34 |
| 2007/2008 | 532.65 | 3 | 9 | 1597.95 |
| SUM | 2102.46 | 3 | 19 | 2457.49 |
| $\mathrm{Yc}=\mathrm{a}+\mathrm{bx}$ |  |  |  |  |
| $\mathrm{a}=$ sumY/n |  | 350.41 |  |  |
| $\mathrm{b}=$ sumxy/sum $\times 2$ |  | 129.342 |  |  |

Trend Value for period 2008/2009 to 2012/2013

| Year | X | Trend Values |
| :---: | :---: | :---: |
| $2008 / 2009$ | 4 | 867.77632 |
| $2009 / 2010$ | 5 | 997.11789 |
| $2010 / 2011$ | 6 | 1126.4595 |
| $2011 / 2012$ | 7 | 1255.8011 |
| $2012 / 2013$ | 8 | 1385.1426 |


| NABIL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year (t) | Loan Loss Provision (y) | $\mathrm{x}=\mathrm{t}-2005$ | x 2 | x*y |
| 2002/2003 | 357.73 | -2 | 4 | -715.46 |
| 2003/2004 | 358.66 | -1 | 1 | -358.66 |
| 2004/2005 | 360.57 | 0 | 0 | 0 |
| 2005/2006 | 356.24 | 1 | 1 | 356.24 |
| 2006/2007 | 357.24 | 2 | 4 | 714.48 |
| 2007/2008 | 394.41 | 3 | 9 | 1183.23 |
| SUM | 2184.85 | 3 | 19 | 1179.83 |
| $\mathrm{Yc}=\mathrm{a}+\mathrm{bx}$ |  |  |  |  |
| $a=$ sumY/n |  | 364.14167 |  |  |
| $\mathrm{b}=$ sumxy/sum $\times 2$ |  | 62.096316 |  |  |

Trend Value for period 2008/2009 to 2012/2013

| Year | X | Trend Values |
| :---: | :---: | :---: |
| $2008 / 2009$ | 4 | 612.5269 |
| $2009 / 2010$ | 5 | 674.6232 |
| $2010 / 2011$ | 6 | 736.7196 |
| $2011 / 2012$ | 7 | 798.8159 |
| $2012 / 2013$ | 8 | 860.9122 |

