## CHAPTER - I

## INTRODUCTION

### 1.1 Background of the Study

The trend of rising anticipation and ambition of people at present context of society, realized the need for cyclone soico-economic development in the nation building process the government felt of impart a dynamic role and charge the public sector with greater responsibility in fulfilling national goals and objectives. With this realization the government mushroomed into a number of establishments like agriculture, industry, commerce, public works, transport, and other sectors.

In this circumstance, banking was seen as major components to uplift the economic conditions of public, and country and the world as well. Therefore the government was forced to adopt a liberal economic policy regarding operation of banks. About the financial liberalization process it can be said that "the interest rate deregulation curtailment or elimination of directed credits, lifting entry and exit barriers for financial intermediaries, restructuring of banking system and institution for regulatory and supervisory mechanism is some of the key components of such liberalization". This led to the influx of commercial banks in Nepal.

The word "Bank" was brought from French word "Banque" and Italian word "Banca"; which means a bench to advance loan and to exchange money. By given definition of banks, it is clear that the organizations that accepts the deposits and provide the loan, is bank. Bank provide loan not only from deposited amount but also creates the money for loan.

Banks are those financial intermediaries who accept deposit and grants loan. In other word bank may be defined as financial intermediaries accepting deposits and granting loans; offers the widest menu of services of any financial institution.

Certainly banks can be identified by the functions they perform in the economy. "Indeed, many financial institutions-including security dealers, brokerage firms, mutual funds, and insurance companies are trying to be as similar as possible to banks in the services they offer". (Rose; 2002: 2)

Bank plays a vital role in developing economy of any country. It is a resource mobilizing institution which accepts deposit from various source and invest such accumulated resources in the field of agriculture, trade, commerce, industry, tourism etc. "The banking sector is largely responsible for collecting household saving in terms of different types of deposit and regulating it in the society by lending in different sector of economy. But lending their resources in small scale industries under intensive banking program has enabled the bank is to share in the economic growth of the economy." (Shrestha; 1993: 32)

Banks are among the most important financial institutions in the economy. They are the principal source of credit (loanable funds) for million of individual and families and for many units of government (school districts, cities, countries, etc). Moreover, for small local business ranging from grocery stores to automobile dealers, banks are after the major source of credit to stork the shelve with merchandise or to fill a dealer's showroom with new cars. When business and consumers must make payment for purchase of goods and services, more often than not they use bank-provided cheques, credit card, or electronic device connected to a computer network. And when they need financial information and financial planning, it is the banker to whom they turn most frequently for advice and counsel.

Above all else, banks are financial intermediaries, similar to credit unions, insurance companies, and other institutions selling financial services. The term financial intermediary simply means a business that interacts with two types of individuals and institutions in the economy; i) deficit-spending individuals and institutions, whose current receipts of income exceed their current receipts of income and who, therefore, need to raise funds extremely through borrowing; and ii) surplus-spending individuals and institutions, whose currently receipts of income exceed their current expenditures on good and services so they have surplus funds to save and invest. Banks perform the indispensable task on intermediation between these two groups, offering convenient financial services to surplus spending individuals and instructions in order to attract funds and then loaning those funds of deficit-spending individual's institutions.

There is an ongoing debate in the theory of finance and economics about why banks exist. What essential services do banks provide that other business and individual cannot provide from themselves?

This question has proven to extremely difficult to answer. Research evidence has accumulated over many years showing that our financial system and financial markets are extremely efficient. Funds and information flow readily to both lender and borrowers, and the prices of loans and securities seem to be determined in highly competitive markets. In a perfectly competitive and efficient financial system, in which all participants have open and equal access to the financial markets and can borrow and lend at the same interest rate, in which no one participant can exercise control over interest rates or prices, in which all pertinent information affecting the value of loans, securities and other assets is readily available to all market participants at negligible cost, in which transactions costs are not significant impediments to trading assets, and all loans and securities are available demolitions to anyone can afford, why would banks be needed at all?

Another contribution banks make is their willingness to accept risky loans from borrowers, while issuing low-risk securities to their depositors. In effect, banks engage in risky arbitrage across the financial markets.

Nowadays, two types of banking practices are seen in the financial market, Commercial banking and Development banking. The commercial banks usually make business in urban areas whereas development banks provide services in rural areas. In the commercial lending, usually the same client is repeated of loan repaid. But in development finance if such repetition occurs, the outreach could not be extended. Generally commercial banks play a vital role to meet the cash need of different organs of the society. (Kunwar; 2003: 249)

### 1.2 Nepal Industrial and Commercial (NIC) Bank

NIC Bank, which commenced operation on 21 July 1998, is the first commercial bank in the country to be capitalized at NPR 500 million. The Bank was promoted by some of the prominent business houses of the country. Promoters hold $65 \%$ of the shares while the remaining $35 \%$ is held by the general public. NIC Bank is one of the most widely held companies in Nepal with nearly 32,000 shareholders. The shares of the Bank are actively traded in Nepal Stock Exchange with market capitalization of about NPR 12,119 million as at the year ended 15 July, 2008.

Figure 1.1
Equity Participation in NIC Bank


Within 10 years of commencing business the Bank has grown rapidly with 16 branches throughout the country while at least 4 more planned this year. All branches are inter-connected through V-Sat and are capable of providing real time on-line transactions.

The Bank is the first commercial bank in Nepal to be ISO 9001:2000 certified for Quality Management System. Furthermore, NIC Bank became the $1^{\text {st }}$ bank in Nepal to be provided a line of credit by International Finance Corporation (IFC), an arm of World Bank Group under its Global Trade Finance Program enabling our Letters of Credit to be accepted/confirmed by more than 200 banks worldwide. The Bank has also been awarded the "Bank of the Year 2007- Nepal" by the world - renowned financial publication of the Financial Times, U.K.- The Banker.

The Bank believes that these recognitions are a testimony to its success, robust growth and the transparency and professionalism it has consistently displayed in its business. The Bank is run by professional and believes in the highest standards of corporate governance.

Table 1.1
Branches of NIC Bank

| S.N. | Branch | Location |
| :---: | :---: | :---: |
| 1. | Kamaladi Branch (Corporate Office) | Kamaladi Sadak, Kathmandu |
| 2. | Biratnagar Branch (Registered Office) | Main Road, Biratnagar |
| 3. | New Road Branch | Bishal Bazaar Complex, New Road |
| 4. | Dharan Branch | Mahendra Path, Dharan |
| 5. | Birtamod Branch | Bhadrapur Road, Birtamod |
| 6. | Birgunj Branch | Adarsh Nagar, Birgunj |
| 7. | Janakpur Branch | Ram Mandir Chowk, Janakpur |
| 8. | Pokhara Branch | Mahendra Pool, Pokhara |
| 9. | Nepalgunj Branch | Surkhet Road, Nepalgunj |
| 10. | Lalitpur Branch | Pulchowk, Lalitpur |
| 11. | Damak Branch | Rajmarg Chowk, Damak |
| 12. | Butwal Branch | Shrawanpath, Butwal |
| 13. | Bhaktapur Branch | Suryavinayak Bhaktapur |
| 14. | Surkhet Branch | Birendra Chowk, Surkhet |
| 15. | Lahan Branch | Ganesh Chowk, Lahan |
| 16. | Battisputali Branch | Battisputali, Kathmandu |
|  |  |  |
|  | Proposed Branch |  |
| 1. | Dhangadi Branch |  |
| 2. | Samakhushi Branch |  |
| 3. | Satdobato Branch |  |
| 4. | Kirtipur Branch |  |

## Services of NIC Bank

The Bank believes in continuously offering new and value added services to its customers, with commitment to quality and value to its clients at the same time. Accordingly, the Bank has been in the forefront in launching innovative and superior products having unique customer friendly features with immense success.

## NIC Life Savings Account

This is the first and only deposit product in the banking industry in the country/bundled with life insurance cover, which was launched in 2003. The product has been a runaway success with total deposits crossing the NPR 2 billion mark.

## NIC USD Super Savings Account

This deposit product was launched in 2006 bundled with a lot of facilities and has gained popularity amongst individuals who earn in foreign currencies.

## Shareholder Savings Account

The Bank has also come up with another unique deposit product called NIC Shareholder Savings Account for the benefit of its shareholders. The main objective of this account is to accumulate the widely scattered deposits of shareholders and provide them modern and innovative banking services plus a good return on their savings. Now shareholders will no longer be required to queue up to receive dividend payments as the same will be directly credited to their account.

## NIC Business Account

The introduced another unique product branded NIC Business Account in October 2007, an interest bearing account aimed at businesses. It is being targeted at Proprietorship firms, Partnership firms, Companies, etc. That still many firms and companies do not have access to banking and these businesses also do not manage their cash effectively. NIC Business Account encourages such businesses to maintain accounts by offering interest on daily balance with lots of free and discount banking facilities.

## NIC Super Deposit

'NIC Super Deposit' a term deposit with a never-heard interest rate of up to $9 \%$ p.a. bundled with the flexibility of a savings account, is an innovative product
developed by NIC Bank with simplified operational procedures. This unique product, which was launched in June 2008, offers a unique investment opportunity, with high returns of a fixed deposit with the flexibility of a saving account.

## Karmashil Bachat Khata

The Bank launched another unique savings deposit product in July 2007 branded Karmashil Bachat Khata specifically designed to provide an opportunity to save small amounts with high returns and various other facilities and cultivative banking habit. This account was developed to provide banking services to middle level working professionals and low/middle class individuals working in various private/government/social organizations, students, retired professionals and farmers etc. This product has been very popular among the target group with 8,000 accounts already opened as of July 2008.

## NIC Sikshya Kosh

This deposit product was launched in 2005 with an aim to inculcate the habit of putting aside small amounts of money every now and then to ensure one's children's future university education which can be very expensive and difficult to meet if one does not plan ahead. The high interest savings account has been well appreciated by the market. The product has also been a runaway success with about 8,000 depositors as of July 15, 2008.

## NIC Pure Gold

NIC Bank has also launched NIC Pure Gold, a first-of-its-kind innovative product never before introduced by any bank in Nepal. Although there is a sizable demand for gold in Nepal, Nepali consumers are always uncertain of the quality available in the market. With NIC Bank importing certified 99.9\% pure gold from reputed international mints/suppliers, quality is now assured.

## NIC Pure Silver

The Bank was also the first among financial institutions in Nepal to import $99.9 \%$ pure silver granules from international mints. With the introduction of NIC silver, NIC Bank is contributing to the silver crafts and jewellery industry by providing easy access to pure silver granules, that, too, in easy to carry packs of 10 Kgs .

## 365 Days Banking

The Bank has been providing 365 Days Banking Services from its Kamaladi Branch for its Kathmandu Valley Customers providing Cash Withdrawal/Deposit, Foreign Currency Exchange and Traveler's Cheque facilities and acceptance of the applications to be processed immediately after holiday.

## NIC Cash Card

The Bank launched NIC Cash Card in association with Smart Choice Technologies (SCT) to access accounts through networked ATMs and PoS terminals. NIC Cash Card allows its holder to withdraw cash, inquire balances make payments through a wide network of ATMs and PoS terminals of SCT Network in Nepal and more than 1,000 ATMs of Punjab National Bank under FSS Network in India. NIC Cash Cards can be availed of without maintaining an account.

## NIC SMS Banking

The Bank launched SMS Banking Service in 2005, which allows NIC customers to access their accounts through mobile phones for inquiring balance, viewing transaction history and request for cheque-books and statements.

NIC Ghar Subidha
The Bank launched a unique retail product called "NIC Ghar Subidha" in 2005, which is a personal property finance suite of products with unique features never before introduced in the Nepali market. It aims to make possible the dream of every middle class Nepali family of living in one's own house come true. With the low pricing and other features bundled in the product, a middle class family will not have to wait until retirement to fulfill his dream. The product has been another runaway success with total lending under the product crossing the NPR 2 billion mark as at July 15, 2008.

## NIC SME Trade \& Industry Loan

SME T\&IL is yet another innovative product under SME loans. The loans is suitable for expansion of existing businesses. A combination of fund based and non fund based facilities facilitates in financing working capital, capital expenditure and trade related requirement of SMEs. Per borrower exposure under this product is restricted to NPS 40 million with a cap of NPR 20 million on funds based.

## NIC Small Business Loan

The Bank introduced another unique product called "NIC Small Business Loan" in 2006. The product is a unique, simple and cost effective loan to cater to the financial needs of a wide range of small and medium enterprises. It has been felt that businesses of this category generally do not have easy access to bank finance and even when it is available, cumbersome procedures, lengthy paperwork and high cost of finance become major deterring factors. The product has been designed specifically addressing these factors and offers a loan product to best suit the needs of small and medium sized businesses. People owning small businesses or self-employed professionals now no longer need to feel intimidated about going to a bank for a loan.

NIC Sajilo Karja (NSKza)
NIC Sajilo Karja (NSKza) is a simple overdraft facility developed to cater to the personal financing needs of salaried individuals, self-employed, professionals and owners of small family businesses. It is structured as a simple easy-to-use and easy-to-understand overdraft facility, which provides full flexibility for withdrawal of funds and repayment at the borrower's convenience without the need for any further bureaucratic process once the limit is set up. The major attractions of the product are very simplified loan approval process, borrower-determined usage and savings on interest cost.

### 1.3 Personal Loan

NIC Bank has categorized personal loan as;

## a. NIC Ghar Subidha

Housing loan is purely asset based lending. These are essentially instalment loans for financing purchase of land, building, and renovation existing house, construction of new house and extension of residential properties. The loans are secured against mortgage of the financed property in the Bank's name. The loans that are offered under the brand name of NIC Ghar Subidha are;
i) Purchase of House, Apartment, Land
ii) Construction of House (self)
iii) Construction of House (developer)
iv) Renovation/extension of existing house
v) Equity finance (mortgage finance) of the existing property
vi) Refinance of Home loan already financed by other Banks

Features:

* Construction of house (up to $110 \%$ financing)
* Renovation/ extension of existing house (up to $110 \%$ financing)
* Purchase of house/land/apartment
* Finance against owned house/land
* Refinance of existing loans taken from other financial institutions
* Tenure: 2 years to 20 years
* Payment Method: Equated Monthly Installments (EMI)
* Automatic eligibility of auto, travel, education loans etc for those with good repayment period.
* Free ATM/Debit Card (one time fee)
* $25 \%$ discount on safe deposit locker (subject to availability)
* Processing fee $1 \%$


## b. NIC Sajilo Karza (NSKza)

NSKza is a simple overdraft facility targeted to the personal financing needs of individuals, self employed, professionals and owners of small family business. This loan will be secured against mortgage of real estate collateral.

Features:

* Financing: Rs. 0.5 Million to Rs. 15 Million
* Tenure: Revolving maximum 13 months
* Payment Method: Withdrawal by cheque and deposit at your convenience
* Interest only on amount utilized
* Processing fee $1 \%$


### 1.4 Statement of the Problem

Due to globalization and liberalization of economy, the number of commercial banks is increasing in Nepal. But the banking service per person is very low. Poorer or deprived sector of the economy is granted loan only due to the strict directives set by Nepal Rastra Bank (NRB). Banks are not easily accessible to the people of remote and village areas because private banks are established mostly in the cities and capital of the country.

The main function of commercial bank is loan management. It is very challenging task on the part of bank because the bank has to disburse loan in
the appropriate sector and recover it in time as well. In this competitive environment, it is very difficult to choose right and productive sectors for granting loan. Hence, there is the chance of flowing bank's deposit in unproductive sector.

Bank has special facilities for personal loan but most of the people are not utilizing it. This study finds out the problems why they are not getting benefits of the customer loan and its facilities provided by bank. Many people are unaware of its procedures and techniques to apply too and have no idea how to apply for consumer loan and don't know how effective it will be during at the scarcity. Banks are keeping concern to the needs of consumer, so they are introducing the personal loan in the market.

Taking aforementioned problems under consideration, some research questions are raised as follows:

* Are personal loans fulfilling their demand as per customers?
* What loans are provided by NIC Bank and how much do they aid in increasing surplus of the bank?
* Are the loans of NIC really demanding?
* Is the interest rate charged by NIC Banks is reasonable?


### 1.5 Objectives of the Study

The basic objectives of the study are to have true insight in the loan management aspects (practice of personal loans) of NIC bank. This aims to examine its efficiency, effectiveness, systematization and sincerity in personal loan.

The major objectives of this study are:
i) To present the overall loan management of NIC Bank.
ii) To analyze the personal loans provided by NIC Bank.
iii) To analyze the interest rate structure on personal loans to be issued.
iv) To examine the demand of personal loan.
v) To analyze the profit of the NIC Bank through the help of Personal Loan.

### 1.6 Significance of the Study

The study is very significant to professionals, students, teachers and general public, who want to know about the personal loan management of NIC Bank. The research findings may also be valuable to the bank taken for study. The findings may be useful for the bank to overcome its weaknesses to alter and make new policies and strategies regarding loan management. The study will be helpful to the borrowers who want to approach bank for loan. Further, the study will also be reference to the future researcher to do research on personal loan.

### 1.7 Limitations of the Study

The scope of the study has been made limited by the following factors:
a) Although there are 25 commercial banks existing in Nepal, the research concentrate only on NIC Bank. So, the overall loan management in Nepal cannot be known with this research.
b) The study is focused only on personal loan as a result the other financial aspects of NIC Bank are excluded.
c) The study analyses secondary data only for five year period.
d) The accuracy of the primary data depends on the responses provided by the sampled respondents.

### 1.8 Chapter Scheme

The whole study has been designed into five chapters:

## Chapter I: Introduction

This chapter includes background of the study, introduction of NIC banks, its services, features and personal loan provided statement of the problem, objectives of the study, significance of the study and limitations of the study.

## Chapter II: Review of Literature

The second chapter consist of conceptual framework and review of literature under which the term loan management and personal loan have been described as well as previous related research works have also been reviewed.

## Chapter III: Research Methodology

In the third chapter the research methodology followed to achieve the purpose of this study has been designed which includes research design, period covered, nature and source of data, tools used to analyze the data and research variables are described.

## Chapter IV: Data Presentation and Analysis

The fourth chapter includes the presentation and analysis of data made availed from NIC Bank according to the need of the study.

## Chapter V: Summary, Conclusion and Recommendations

This is the last chapter of this dissertation which consists of summary of the study, conclusions drawn and the recommendation for improving the loan practices of in NIC Bank.

Besides these chapters, Bibliography and Appendix are included in this research paper.

## CHAPTER - II

## REVIEW OF LITERATURE

### 2.1 Conceptual Framework

### 2.1.1 Loan Management

"Lending is the principal business activity for most commercial banks. The loan is typically the largest asset and the predominate source of revenue. As such, it is one of the greatest sources of risk to a bank's safety and soundness. Whether due to lax credit standards, poor risk management, or weakness in the economy, loan problems have historically been the major cause of bank losses and failures." (Khan; 1982: 110)
"Effective management of the loan and the credit function is fundamental to a bank's safety and soundness. Loan management (LM) is the process by which risks that are inherent in the credit process are managed and controlled. Because review of the LM process is so important, it is a primary supervisory activity. Assessing LM involves evaluating the steps bank management takes to identify and control risk throughout the credit process. The assessment focuses on what management does to identify issues before they become problems." (Rose; 2002: 47)

For decades, good loan portfolio managers have concentrated most of their effort on prudently approving loans and carefully monitoring loan performance. Although these activities continue to be mainstays of loan portfolio management, analysis of past credit problems, such as those associated with oil and gas lending, agricultural lending, and commercial real estate lending in the 1980s, has made it clear that portfolio managers should do
more. Traditional practices rely too much on trailing indicators of credit quality such as delinquency, nonaccrual, and risk rating trends. Banks have found that these indicators do not provide sufficient lead time for corrective action when there is a systemic increase in risk.

### 2.1.2 Risks Associated with Lending

"Lending can expose a bank's earnings and capital to all of the risks. Therefore, it is important that the examiner assigned LM understands all the risks embedded in the loan and their potential impact on the institution. Risk is the potential that events, expected or unexpected, may have an adverse impact on the bank's earnings or capital. A key challenge in managing risk is to understand the interrelationships of the nine risk factors." (Gitman \& Jochnk; 1990: 23)

## a) Credit Risk

Credit risk arises due to possibility of payment default from the counter parties. For most banks, loans are the largest and most obvious source of credit risk. However, there are other pockets of credit risk both on and off balance sheet, such as the investment portfolio, overdrafts, and letters of credit. Many products, activities, and services, such as derivatives, foreign exchange, and cash management services, also expose a bank to credit risk.
"The risk of repayment, i.e., the possibility that an obligor will fail to perform as agreed, is either lessened or increased by a bank's credit risk management practices. A bank's first defense against excessive credit risk is the initial credit-granting process, sound underwriting standards, an efficient, balanced approval process, and a competent lending staff. Because a bank cannot easily overcome borrowers with questionable capacity or character, these factors exert a strong influence on credit quality. Borrowers whose financial performance is poor or marginal, or whose repayment ability is dependent upon unproven projections can quickly become impaired by personal or
external economic stress. Management of credit risk, however, must continue after a loan has been made, for sound initial credit decisions can be undermined by improper loan structuring or inadequate monitoring." (Gitman \& Jochnk; 1990: 27)

## b) Interest Rate Risk

The level of interest rate risk attributed to the bank's lending activities depends on the composition of its loan portfolio and the degree to which the terms of its loans (e.g., maturity, rate structure, embedded options) expose the bank's revenue stream to changes in rates.
"Pricing and portfolio maturity decisions should be made with an eye to funding costs and maturities. When significant individual credits or portfolio segments are especially sensitive to interest rate risk, they should be periodically stress-tested. If the asset/liability management committee (ALCO), which typically is responsible for managing the bank's interest rate risk, is to manage all of the bank's positions, it must have sufficient reports on loan portfolio and pipeline composition and trends. These reports might include a maturing loans report, pipeline report, and rate and repricing report." (Francis; 1991: 52)

Banks frequently shift interest rate risk to their borrowers by structuring loans with variable interest rates. Borrowers with marginal repayment capacity may experience financial difficulty if the interest rates on these loans increase. As part of the risk management process, banks should identify borrowers whose loans have heightened sensitivity to interest rate changes and develop strategies to mitigate the risk. One method is to require vulnerable borrowers to purchase interest rate protection or otherwise hedge the risk.

## c) Liquidity Risk

"Because of the size of the loan, effective management of liquidity risk
requires that there be close ties to, and good information flow from, the lending function. Obviously, loans are a primary use of funds. And while controlling loan growth has always been a large part of liquidity management, historically the loan has not been viewed as a significant source of funds for liquidity management. Practices are changing, however. Banks can use the loan portfolio as a source of funds by reducing the total dollar volume of loans through sales, securitization, and portfolio run-off." (Francis; 1991: 55)

In fact, banks are taking a more active role in managing their loan portfolios. While these activities are often initiated to manage credit risk, they have also improved liquidity. Banks increasingly are originating loans "for sale" or securitization. Consumer loans (mortgages, installment loans, and credit cards) are routinely originated for immediate securitization. Many larger banks have been expanding their underwriting for the syndicated loan market.

## d) Price Risk

Most of the developments that improve the loan portfolio's liquidity have implications for price risk. Traditionally, the lending activities of most banks were not affected by price risk. Because loans were customarily held to maturity, accounting doctrine required book value accounting treatment. However, as banks develop more active portfolio management practices and the market for loans expands and deepens, loan portfolios will become increasingly sensitive to price risk.
"Loans originated for sale as part of a securitization or for direct placement in the secondary market carry price risk while they are in the pipeline awaiting packaging and sale. During that period, the assets should be placed in a "held-for-sale" account, where they must be repriced at the lower of cost or market. The same accounting treatment can apply to syndicated credits and distressed loans. When a bank underwrites a larger portion of a syndicated loan than its "hold" position, the excess portion must be placed in a held-for- sale account.

Once a sale strategy is adopted for distressed or otherwise undesirable credits, those credits should also be placed in a held-for-sale account." (Gitman \& Jochnk; 1990: 31)

## e) Foreign Exchange Risk

"Foreign exchange risk is present when a loan or portfolio of loans is denominated in a foreign currency or is funded by borrowings in another currency. In some cases, banks will enter into multi-currency credit commitments that permit borrowers to select the currency they prefer to use in each rollover period. Foreign exchange risk can be intensified by political, social, or economic developments. The consequences can be unfavorable if one of the currencies involved becomes subject to stringent exchange controls or is subject to wide exchange-rate fluctuations." (Gupta; 1984: 213)

## f) Transaction Risk

In the lending area, transaction risk is present primarily in the loan disbursement and credit administration processes. "The level of transaction risk depends on the adequacy of information systems and controls, the quality of operating procedures, and the capability and integrity of employees. Significant losses in loan and lease portfolios have resulted from inadequate information systems, procedures, and controls." (Gupta; 1984: 215) For example, banks have incurred increased credit risk when information systems failed to provide adequate information to identify concentrations, expired facilities, or stale financial statements. At times, banks have incurred losses because they failed to perfect or renew collateral liens; to obtain proper signatures on loan documents; or to disburse loan proceeds as required by the loan documents.

## g) Compliance Risk

"Lending activities encompass a broad range of compliance responsibilities and risks. By law, a bank must observe limits on its loans to a single borrower,
to insiders, and to affiliates; limits on interest rates; and the array of consumer protection and Community Reinvestment Act regulations. A bank's lending activities may expose it to liability for the cleanup of environmental hazards. A bank may also become the subject of borrower-initiated "lender liability" lawsuits for damages attributed to its lending or collection practices. Supervisory activities should include the review of the bank's internal compliance process to ensure that examiners identify and investigate compliance issues." (Desai; 1967: 37)

## h) Strategic Risk

"A primary objective of loan portfolio management is to control the strategic risk associated with a bank's lending activities. Inappropriate strategic or tactical decisions about underwriting standards, loan portfolio growth, new loan products, or geographic and demographic markets can compromise a bank's future. Examiners should be particularly attentive to new business and product ventures. These ventures require significant planning and careful oversight to ensure the risks are appropriately identified and managed. Both bankers and examiners need to decide whether the opportunities outweigh the strategic risks. If a bank is considering growing a loan product or business in a market saturated with that product or business, it should make sure that it is not overlooking other lending opportunities with more promise. During their evaluation of the loan management process, examiners should ensure that bankers are realistically assessing strategic risk." (Desai; 1967: 40)

## i) Reputation Risk

When a bank experiences credit problems, its reputation with investors, the community, and even individual customers usually suffers. Inefficient loan delivery systems, failure to adequately meet the credit needs of the community, and lender-liability lawsuits are also examples of how a bank's reputation can be tarnished because of problems within its lending division.
"Reputation risk can damage a bank's business in many ways. The value of
the bank's stock falls, customers and community support is lost, and business opportunities evaporate. To protect their reputations, banks often feel that they must do more than is legally required. For example, some banks have repurchased loan participations when credit problems develop, even though these problems were not apparent at the time of the underwriting." (Francis; 1991: 60)

### 2.1.3 Loan Management Objectives

"Loan objectives establish specific, measurable goals for the bank. The board of directors must ensure that loans are made with the following three basic objectives in mind:" (Crosse; 1963: 73)

- To grant loans on a sound and collectible basis.
- To invest the bank's funds profitably for the benefit of shareholders and the protection of depositors.
- To serve the legitimate credit needs of their communities.


### 2.1.3.1 Strategic Planning for the Loan

"For most banks, meeting the aforementioned three objectives will require that senior management and the board of directors develop medium- and long-term strategic plans and objectives for the loan portfolio. These strategies should be consistent with the strategic direction and risk tolerance of the institution. They should be developed with a clear understanding of their risk/reward consequences. They also should be reviewed periodically and modified as appropriate. In drawing up strategic objectives, management and the board should consider establishing:" (Crosse; 1963: 85)

- What proportion of the balance sheet, the loan should comprise?
- Goals for loan quality.
- Goals for portfolio diversification.
- How much the loan should contribute to the bank's financial objectives?
- Loan product mix.
- Loan growth targets by product, market, and portfolio segment.
- Product specialization.
- What the bank's geographic markets should be.
- Targeted industries.
- Targeted market share.
- Community needs and service.
- General financial objectives (e.g., increase fee income).

The bank's loan policies, underwriting guidelines, and procedures should communicate and support the strategic objectives for the portfolio. MIS should be able to inform management about whether performance measures up to plans. Management should evaluate business, marketing, and compensation plans to ensure that short-term goals and incentives are consistent with strategic portfolio objectives and risk tolerances. In community banks without formal strategic plans, senior management should be able to articulate the bank's strategic objectives. It should be evident, as well, that the board of directors has endorsed those objectives.

### 2.1.4 The Loan Policy

The loan policy is the primary means by which senior management and the board guide lending activities. Although the policy primarily imposes standards, it also is a statement of the bank's basic credit philosophy. It provides a framework for achieving asset quality and earnings objectives, sets risk tolerance levels, and guides the bank's lending activities in a manner consistent with the bank's strategic direction. Loan policy sets standards for portfolio composition, individual credit decisions, fair lending, and compliance management.
"Loan policies vary in length, organization, degree of detail, and breadth of
topics, there is no ideal format. Frequently, the bank's general lending policy will be supplemented by more detailed underwriting standards, guidelines, and procedures. Within the same banking company, certain aspects of the policy may vary because of factors such as geographic location, economic conditions, personnel, or portfolio objectives. The format should be tailored to fit the needs of a particular bank, and the scope and detail should be commensurate with the complexity of the bank's lending activities." (William; 1960: 104)

In all but very small community banks, the loan policy will be written. "The policy should provide a realistic description of where the bank wants to position itself on the risk/reward spectrum. It needs to provide sufficient latitude for a bank to respond to good business opportunities while concurrently controlling credit risk. In normal circumstances, a bank should be able to achieve portfolio objectives and respond to changing market conditions without triggering a limit. Limits should not be so conservative that insignificant changes breach them, nor should they be so liberal that they have no practical effect." (Grywinski: 1991: 75)
"For the policy to be an effective risk management tool, it must clearly establish the responsibilities of those involved in the lending process. For example, who is authorized to approve a covenant violation, who arbitrates risk rating differences, can a credit-scored decision be overridden? Lenders must know what is expected of them. When policy is vague or too broad, credit standards may be unclear and virtually nothing may be regarded as an exception. If the policy states that a bank will extend credit to established businesses, almost any company would qualify. But a policy further requiring the business to be profitable, in operation for at least two years, and located within the bank's community is providing meaningful guidance." (Grywinski: 1991: 77)

When policy is too prescriptive and particular, exceptions to policy will
become the rule and meaningless exception data will mask meaningful trends, thereby diminishing the effectiveness of the policy. Because exceptions are so important, the policy should address them specifically; it should state when they are acceptable and how they should be identified, mitigated, and documented. Some lending standards, such as those that implement legal requirements or those whose violation quickly translates into losses, have greater significance than others. More substantive exceptions should have heightened reporting requirements to senior management and the board. Failure to comply with the provisions of loan policy concerning exceptions is generally regarded as a material weakness.
"Policies should be periodically reviewed and revised to accommodate changes in the bank's strategic direction, risk tolerance, or market conditions. Policy review should consider the organizational structure, breadth and complexity of lending activities, capabilities and skills of lending personnel, and strategic portfolio quality and earnings objectives. Changes in regulations and business conditions also need to be considered. In addition to providing an opportunity for change, the review should evaluate how well the policy has guided lending decisions. For example, a high volume of exceptions indicates that many loan decisions are being made outside the policy. This could mean that the bank is assuming more risk than is desirable or that the policy is too restrictive. If the bank's policy is too restrictive, easing it could increase business opportunities without unduly increasing risk. Conversely, the absence of exceptions may indicate that the policy is too vague, and a tightening of the policy could strengthen the controls on loan quality. All policy reviews should include the organizational unit responsible for assessing compliance with policy." (Reed, Edward, Cotter \& Smith; 1980: 82)

### 2.1.4.1 Loan Policy Topics

"While the form and contents of loan policies and procedures will vary from bank to bank, there are some topics that should be covered in all cases. These
are:" (Chopra; 1989: 17)

| Loan authorities. |  |
| :--- | :--- |
| Limits on aggregate loans and commitments. |  |
| Portfolio distribution by loan category and product. |  |
| Geographic limits. |  |
| Desirable types of loans. |  |
| Underwriting criteria. |  |
| Financial information and analysis requirements. |  |
| Collateral and structure requirements. |  |
|  | Margin requirements. |
| Pricing guidelines. |  |
| Documentation standards. |  |
| Collections and charge-offs. |  |
| Reporting requirements. |  |
| Guidelines for loan participations. |  |
| Off-balance-sheet exposure. |  |

The policy may also address insider transactions, affiliate transactions, conflicts of interest, the code of ethics, community support, appraisal requirements, environmental assessment requirements, relevant accounting issues (such as charge-off loans, nonperforming loans, and debt restructuring), and the allowance for loan and lease losses. Any administrative requirements for granting loans should be covered in the policy. Policies and procedures should also ensure compliance with laws and regulations.

### 2.1.5 Loan Approval Process

The loan approval process is the first step towards good portfolio quality. When individual credits are underwritten with sound credit principles, the credit quality of the portfolio is much more likely to be sound. Although good loans sometimes go bad, a loan that starts out bad is likely to stay that way. The foremost means to control loan quality is a solid loan approval process.
"Every loan approval process should introduce sufficient controls to ensure acceptable credit quality at origination. The process should be compatible with the bank's credit culture, its risk profile, and the capabilities of its lenders. Further, the system for loan approvals needs to establish accountability.

Each method of loan approval has inherent strengths and weaknesses. The committee method is advantageous because knowledge can be shared, but it may diminish accountability and often slows a bank's responsiveness. The individual signature authority system is more timely and establishes clear accountability, but it can create undue credit risk if a lender's knowledge and experience are inadequate to his or her authority." (Diamond; 1960: 173)

Laddered or joint authorities, variations that some banks employ, combine elements of both systems. The involvement of an independent loan approval authority whose primary goal is quality (such authority might be invested in a senior credit officer or credit administrator) is also a method to introduce more objectivity to the loan approval process. Whatever approach or combination of approaches a bank uses, internal control mechanisms are necessary to ensure that the approval system produces sound credit decisions.
"An effective loan approval process establishes minimum requirements for the information and analysis upon which a credit decision is based. It provides guidance on the documents needed to approve new credit, renew credit, increase credit to existing borrowers, and change terms in previously approved credits. It will also designate who has the authority to approve credit or changes in credit terms. Loan authorities should be commensurate with the experience of the lender/credit officer and take into consideration the type of credit, the amount of credit, and the level of risk involved. Generally, underwriting document standards should include:" (Dahal \& Dahal; 2007: 39)

- Financial information including:
a. current and historical balance sheet and income data,
b. balance sheet, income, and cash flow projections, when appropriate, and
c. comparative industry data when appropriate.
- Financial analysis, including repayment capacity.
- Collateral identification and valuation.
- Guarantor support and related financial information.
- Summary of borrower and affiliated credit relationships.
- Loan terms, including tenor and repayment structure.
- Pricing information, including relationship profitability data.
- Covenants and requirements for future submission of financial data.
- Exceptions to policy and underwriting guidelines.
- Information fields to capture data for concentration reporting, identifying SNCs (shared national credits), etc.
- Risk rating or recommended risk rating.

The approval process for consumer loans may be more streamlined, but should still include sufficient information to support the credit granting decision, including, when applicable, scorecard data.

### 2.1.6 Loan Portfolio Management

To manage the loan portfolio effectively, the bank should consider the following factors.

### 2.1.6.1 Risk Identification

"Effective risk identification starts with the evaluation of individual credits. Rating the risk of each loan in timely credit evaluations is fundamental to loan portfolio management. Some banks apply risk ratings to relationships, others prefer to rate each facility, and still others rate both relationships and facilities. Risk ratings should also be applied to off-balance-sheet exposures like letters of credit and unfunded commitments that the bank is obligated to fund unless
there is a default. These evaluations allow the prompt detection of changes in portfolio quality, enabling management to modify portfolio strategies and intensify the supervision of weaker credits in a timely manner." (Joseph; 1998: 10)

### 2.1.6.2 Exceptions to Policy, Procedures, and Underwriting Guidelines

Lending exceptions generally either relate to documentation or underwriting. Banks should have systems to analyze and control both types of exceptions. While it is advisable to identify, mitigate, and monitor all exceptions, the level of attention and reporting should correspond with the materiality of the exception. (Joseph; 1998: 10)

## a) Documentation Exceptions

"Loan documentation" refers broadly to the documents needed to legally enforce the loan agreement and properly analyze the borrower's financial capacity. When a document is missing, stale, or improperly executed, it becomes an exception. Common loan documents are promissory notes, note guarantees, financial statements, collateral agreements, and appraisals. The promissory note, guarantee, and financial statement must be properly prepared and signed; the financial statement must be received and analyzed in a timely manner by the bank; and the collateral agreement must be recorded in the appropriate jurisdiction. (Joseph; 1998: 11)

## b) Policy and Underwriting Exceptions

"Policy and underwriting exceptions are conditions in approved loans that violate the loan policy or underwriting guidelines. Because underwriting guidelines are the primary means by which the bank steers lending decisions toward planned strategic objectives and maintains desired levels of risk within the portfolio, deviations from these guidelines should be well documented and justified." (Joseph; 1998: 11)

### 2.1.6.3 Aggregate Exception Tracking and Reporting

"Tracking the aggregate level of exceptions helps detect shifts in the risk characteristics of loan portfolios. In consumer lending, where such tracking is common, it has facilitated risk evaluation, strengthened portfolio liquidity, and helped management to identify new business opportunities. Similar benefits can accrue from tracking underwriting exceptions in commercial and real estate loan portfolios." (Joseph; 1998: 13)

### 2.1.6.4 Portfolio Segmentation and Risk Diversification

"Risk diversification is a basic tenet of portfolio management. Concentrations of credit risk occur within a portfolio when otherwise unrelated loans are linked by a common characteristic. If this common characteristic becomes a common source of weakness for the loans in concentration, the loans could pose considerable risk to earnings and capital." (Joseph; 1998: 13)

## a) Identifying Concentrations of Risk

"Managing the loan portfolio includes managing any concentrations of risk. By segmenting the portfolio into pools of loans with similar characteristics, management can evaluate them in light of the bank's portfolio objectives and risk tolerances and, when necessary, develop strategies for reducing, diversifying, or otherwise mitigating the associated risks." (Joseph; 1998: 14)

### 2.1.6.5 Evaluating and Managing Concentrations of Risk

"Each pool should be evaluated individually - that is, as a discrete pool of risk - and as part of the whole - that is, by how it fits into the portfolio and supports loan portfolio goals. A large exposure to one type of borrower or industry may well be less risky than a small exposure to another. The goal is to achieve the desired balance of risk and return for the portfolio as a whole." (Joseph; 1998: 15)
a) Concentration Management Techniques
"Over the past decade, banks, especially large ones, have been adopting more active portfolio management practices. They are expanding their MIS capabilities and strengthening their credit risk management practices. There are a variety of techniques banks can use to manage portfolios and control concentration risk.

The most common tool is setting exposure limits, or ceilings, on concentrations. Diversifying away from a limit can be accomplished by reducing certain exposures or increasing the borrower base. The reduction of exposures begins with a reassessment of individual borrowers' needs and requires considerable discipline. Nonetheless, it can be a useful tool to diversify risk over a larger customer base.

A bank can change the distribution of its assets by increasing the geographic diversification of borrowers; altering the bank's product mix (for example, by reducing commercial lending and increasing consumer lending); or changing the risk profile of the bank's target market (for example, by turning from middle-market, non-investment-grade customers to well-capitalized, investment-grade customers). Asset sales can also be used to manage concentrations. Banks sell whole loans, sell a portion of a loan into syndication, sell participations in a loan, and securitize certain types of loans. Each of these approaches entails risk/reward trade-offs that must be evaluated in light of the bank's strategic objectives." (Joseph; 1998: 15)

Recently, banks have begun using credit derivatives to reduce the risk posed by concentrations. Although their usage is modest in all but the largest banks, credit derivatives are gaining acceptance.

### 2.1.6.6 Stress Testing

"In stress testing, a bank alters assumptions about one or more financial, structural, or economic variables to determine the potential effect on the performance of a loan, concentration, or portfolio segment. This can be accomplished with "back of the envelope" analysis or by using sophisticated financial models. The method employed is not the issue, rather the issue is asking that critical "what if" question and incorporating the resulting answers into the risk management process. Stress testing is a risk management concept, and all banks will derive benefits, regardless of the sophistication of their methods, from applying this risk management concept to their loans and portfolios." (Joseph; 1998: 16)

### 2.1.7 NRB Directives

The world has witnessed many financial crises and devastating consequences due to huge financial and economic losses that resulted from each episode. Every crisis was sudden in onset and their, magnitude of losses was much larger than expected. If we go back to the history, then on $3^{\text {rd }}$ march 1997; the Asian crisis began in the form of liquidity problem of two finance companies. Later this spread over to other financial intuition within the Thai financial system. Simultaneously, crisis began to cover Malaysian, Indonesian and South Korean financial statement and loomed in the form of Asian crisis. So this Asian crisis appealed the whole world for regular and timely supervision and assessment of financial system, its soundness and vulnerabilities. This event forced the regulatory authorities for the enforcement of prudential measures in order to avoid further crisis review and revision in prudential regulations such as capital adequacy ratio, asset classification. Provisioning for impaired assets, exposures limit and enforcement of international accounting standard etc have now become common issue all over the world since the late 1990s.

Similarly, in our country too, commercial banks could not recognize the importance of the quality credit and banking sector failed to witness the
expected developments. Subsequently, the banking sector faced the problem of bad debts, overdue loans, accrued interest, accumulation of non-banking assets and excess liquidity in the banking system. In addition to these expected happenings new challenger were added to the Nepalese banking sector due to the adverse development in the domestic economy resulting from deteriorating peace and security situation and continuous persistence of natural calamities inside the country on one hand and the global recession primarily caused by international terrorism on the other. Viewing the need of structural reform amidst these adverse implications, NRB issued directives to run commercial banks in a healthy competitive manner to ensure the sustainable development of the overall banking system.

The financial sector reform of Nepal was initiated in mid 1980s. Since then NRB has been playing pioneer role in regulation, supervision and monitoring of commercial banks by issuing directives. At present the number of guidelines issued by NRB to commercial bank reaches sixteen, which are as follows.

1) The provision of minimum capital fund to be maintained by the commercial bank.
2) The provision of loan classifications and loan loss provisioning on the credit.
3) The provision relating to limit on credit exposure and facilities to a single borrower, group of related borrowers and single sector of the economy.
4) The provision relating to accounting policy and the structure of financial statements to be followed by the commercial banks.
5) Regulation relating to minimization of risk inherent in the activities of commercial banks.
6) The provision of institutional good governance to be followed by commercial banks.
7) Time frame for implementation of regulatory directives issued in connection with inspection and supervision and supervision of commercial banks.
8) Regulation relating to investment in shares and securities by commercial banks.
9) The provision of submission of statistical data to the NRB. Banking management division and inspection and supervision division.
10) Regulation relating to sale and ownership transfer of promoters shares.
11) Regulation relating to, stringent blacklisting procedure for loan defaulters.
12) The provision relating to compulsory deposited amount of NRB.
13) Regulation relating to developing the branch office of commercial banks.
14) Provision relating to interest rates.
15) Provision relating to collection of financial sources.
16) Provision relating to consortium financing.

### 2.1.7.1 NRB Directives Relating to Loan Classification and Loan Loss Provision (www.nrb.org.np)

1. Classifications of Loan and Advances: Effective from FY 2058/59 (2001/02) banks shall classify outstanding principal amount of loan and advances on the basis of aging. As per the directives issued by NRB, all loans and advances shall be classified into the following four categories:
a. Pass Loan: - Loans and advances whose principal amount are not past due and past due for a period up to 3 months shall be included in this category. These are classified and defined as performing loans.
b. Sub-Standard Loan: - All loans and advances that are past due for a period of 3 months to 6 months shall be included in this category.
c. Doubtful Loan: - All loans and advances which are past due for a period of 6 months to 1 year shall be included in this category.
d. Loss: - All loans and advances which are past due for a period of more than 1 year as well as advances which have least possibility of recovery or considered unrecoverable and those having thin possibility of even partial recovery in future shall be included in this category.

Loans and advances falling in this category of sub-standard, Doubtful and loss are classified and defined as Non-performing loan. It is appropriate in the view of the banks management; there is not restriction in classifying the loan and advances from low risk category to high risk category. For instance, loans falling under substandard may be classified into doubtful or loss and loans falling under doubtful may be classified into loss category. The term loan and advances also includes bulls purchased and discounted.

Historical Provisions Relating to Loan Classification is depicted in the following table:

For fiscal year 2001/2002 A.D. (2058/2059 B.S.)

| Pass loan | Loans and advances not past due and past due up to 3 <br> months. |
| :--- | :--- |
| Sub-standard <br> loan | Loans and advances past due for a period of over 3 months <br> to 1 year. |
| Doubtful loan | Loans and advances past due for a period over 1 year to 3 <br> year. |
| Loss | Loans and advances past due for a period of over 3 Year. |

For fiscal year 2002/2003 A.D. (2059/2060 B.S.)

| Pass loan | Loans and advances not past due and past due up to 3 <br> months. |
| :--- | :--- |
| Sub-standard | Loans and advances past due for a period of over 3 months <br> to 1 year. |
| Doubtful loan | Loans and advances past due for a period over 1 year to 3 <br> year. |
| Loss | Loans and advances past due for a period of over 3 Year. |

For fiscal year 2003/ 2004A.D. (2060/2061 B.S.)

| Pass loan | Loans and advances not past due and past due up to 3 <br> months. |
| :--- | :--- |
| Sub-standard <br> loan | Loans and advances past due for a period of over 3 months <br> to 9 months. |
| Doubtful loan | Loans and advances past due for a period over 9 months to <br> 2 years. |
| Loss | Loans and advances past due for a period of over 2 Years. |

For fiscal year 2004/2005A.D. (2061/2062 B.S.)

| Pass loan | Loans and advances not past due and past due up to 3 <br> months. |
| :--- | :--- |
| Sub-standard <br> loan | Loans and advances past due for a period of over 3 months <br> to 6 months. |
| Doubtful loan | Loans and advances past due for a period over 6 months to <br> 1 year. |
| Loss | Loans and advances past due for a period of over 1 Year. |

2. Additional Arrangement in Respect of Pass Loan: Loan and advances fully secured by gold, silver, fixed deposit receipts, credit cards and government securities shall be include under "pass" category. Loans against fixed deposit receipts of other banks shall also qualify for inclusion under pass loan. However, where collateral of fixed deposit receipt or government securities or NRB bonds is placed as extra security, such loan has to be classified on the basis of clause 1 to clause 7 . While renewing working capital loan having maturity period up to one year can be classified as pass loan. If the interest of working capital nature loans and advance is not regular, such loan and advances should be classified on the basis of interest outstanding period.
3. Additional Arrangement in Respect of loss Loan: Even if the loan is not past due, loans having any or all of the following discrepancies shall be classified as "loss".
a. Security is not sufficient,
b. The borrower has been declared bankrupt,
c. The borrower is absconding or cannot be found,
d. Purchased or discounted bills are not realized within 90 days from the due date and non fund based letter of credit and guarantees etc are not realized with in 90 days from the date of conversion into fund based are not realized within 90 days,
e. The credit has not been used for the purpose originally intended,
f. Owing to non-recovery, initiation as to auctioning of the collateral has passed six months and if the recovery process is under litigation,
g. Loan provided to the borrowers included in the blacklist of credit information center (CIC),
h. Project or business is not in operative conditions, project or business is not in operation,
i. Credit Card Loan is not written off within 90 days from past due date.
4. Additional Arrangements in Respects of Term Loan: In respect of term loans, the classification shall be made against the entire outstanding loan on the basis of the past due period of overdue installment.

## 5. Prohibition to Recover Principal and Interest by Overdrawing the Current Account and Exceeding the Overdraft Limit: Principal and interest

 on loans and advance shall not be recovered by overdrawing the borrower's current account or where overdraft facility has been extended, by overdrawing such limit. However, this arrangement shall not be constructed as prohibitive for recovering the principal and interest by debiting the customers' account. Where a system in the bank exists as to recovery of principal and interest by debiting the customers' account, and recovery is made as such resulting in overdraft, which is not settled within one month, such overdrawn principal amount shall also be liable to be include under the outstanding loan and such loan shall be downgraded by one step from its current classification. In respects if recognition of interest, the same shall be as per the clause relating to income recognition mentioned in directives no 4.6. Letter of Credit and Guarantees: If letter of credit and guarantees and other contingent liabilities converted into fund based liabilities and have to be paid, in such condition such loan shall be classified as pass loan within 90 days from the date of conversion into fund based. After 90 days such loan shall be classified as loss loan.
7. Rescheduling and Restructuring of the Loan: If the bank is confident on the following bases of written plan of action submitted by borrower, it may reschedule or restructure the loans and advances. Clear bases of rescheduling or restructuring should be attached with loan files.
a. If there is proof of adequate documents and collateral security relating to loan.
b. If the bank is confident in recovery of restructured or rescheduled loans and advances.

In addition to written plan of action for rescheduling or restructuring of loan, payment of at least 25 percent of total accrued interest up to the date of rescheduling of restructuring should have been collected.
8. Loan Loss Provisioning: The loan loss provisioning, on the basis of the
outstanding loans and advances and bills purchases classified as per this
directives, shall be provided as follows:

| Classification of Loan | Loan Loss Provision |
| :--- | :--- |
| Pass loan | $1 \%$ |
| Sub-standard loan | $25 \%$ |
| Doubtful loan | $50 \%$ |
| Loss | $100 \%$ |

### 2.1.8 CAMEL Components

Each of the components rating description in the FFIEC press release (1996) is divided into three sections: an introductory paragraph a list of the principal evaluation factors that relate to that component and a brief description of each numerical rating for that component. Some of the evaluation factors are reiterated under one or more of the other components to reinforce the interrelation between components. The listing of evaluation factors for each component rating is in no particular order of importance. The description of the CAMEL components are made as under based on the FFIEC press release (1996).

### 2.1.8.1 Capital Adequacy

Capital is necessary for the bank to operate. While many areas of a bank are important and subject to scrutiny, capital adequacy is the area that triggers the most regulatory of capital adequacy, which are:

- The Tier 1 Risk-Based capital ratio.
- The total risk-based capital ratio.
- The tier 1 leverage ratio.


## Capital Adequacy Norms by NRB

NRB has form time to time stipulated minimum capital fund to be maintained by the banks on the basis of risk weighted assets. The total capital fund is sum of core capital and supplementary capital. According to the NRB unified directives for Banks and non-banks FIs issue number E. pra.Ni.no 01/061/062 (Ashar 2062 BS), the capital funds of a bank comprise the following:

Core Capital: Core capital of a bank includes paid up equity, share premium, non-redeemable preference shares, general reserve and accumulated profit and loss. However, where the amount of goodwill exists, the same shall be deducted for the purpose of calculation of the core capital.

Supplementary Capital: Supplementary capital includes general loan loss provision, exchange fluctuation reserve, assets revaluation reserve, hybrid capital instruments, unsecured subordinated term debt and other free reserves not allocated for specific purpose.

Banking and Financial institution Ordinance (BAFIO) (2061) also assimilates the same things, which were included and explained in NRB Act 2058, in regard of bank capital. NRB Act is effective from $1^{\text {st }}$ Shrawan 2058(July $16^{\text {th }}$ 2001). According to the NRB directive, minimum paid-up capital requirement for establishment of finance company is as under:

- Rs 200 corer to operate all over Nepal


### 2.1.8.2 Assets Quality

Asset quality is one of the most critical areas in determining the overall condition of the commercial bank. The primary factor effecting overall asset
quality is the quality of the loan portfolio and the credit administration program. Loans are usually the largest of the asset items and can also carry the greatest amount of potential risk to the company's capital account. Security can often be a large portion of the assets and also have identifiable risks. Other items which impact a comprehensive review of asset quality are other real estate, other assets, off-balance sheet items and, to a lesser extent, cash and due from accounts and premises and fixed assets. (Koch and Macdonald; 2004: 47)

## Rating the Asset Quality Factor

The asset quality rating definitions are applied following a through evaluation of existing and potential risks and the mitigation of those risks. The definitions of each rating are as follows:

1. Rating of 1 indicates strong asset quality and credit administration practices. Identified weaknesses are minor in nature and risk exposure is modest in relation to capital protection and management's abilities. Asset quality in such institutions is of minimal supervisory concern.
2. A rating of 2 indicates satisfactory asset quality and credit administration practices. The level and severity of classifications and other weaknesses warrant a limited level of supervisory attention. Risk exposure is commensurate with capital protection and management's abilities.
3. A rating of 3 is assigned when asset quality or credit administration practices are less than satisfactory. Trends may be stable or indicate deterioration in asset quality. The level and severity of classified assets, other weaknesses, and risks require an elevated level of supervisory concern.
4. A rating 4 is assigned to FIs with deficient asset quality or credit administration practices. The levels of risk and problem assets are significant, inadequately controlled, and subject the FI to potential losses that, if left unchecked, may threaten its viability.
5. A rating of 5 represents critically deficient asset quality or credit administration practices that present an imminent threat to the institution's viability.

### 2.1.8.3 Management Quality

Depending on the nature scope of an institution's activities, management practices may need to address some or all of the following risks: credit, market, operating or transaction, reputation, strategic, compliance, legal, liquidity and other risks. Sound management practices are demonstrated by: active oversight by the board of directors and management; competent personnel; adequate policies processes, and controls taking into consideration the size and sophistication of the institution; maintenance of an appropriate audit program and internal control environment: and effective risk monitoring and management information systems. This rating should reflect the board's and management's ability as it applies to all aspects of banking operations as well as other financial service activities in which the institution is involved. (Mishkin; 1998: 13)

## Rating the Management Factors

1. A rating of 1 indicates strong performance by management and board of directors and strong risk management practices relative to the institution's size, complexity and risk profile. All significant risks are consistently and effectively identified, measured, monitored and controlled. Management and the board have demonstrated the ability to promptly and successfully address existing and potential problems and risks.
2. A rating of 2 indicates satisfactory management and board performance and risk management practices relative to the institution's size, complexity and risk profile. Minor weakness may exist, but are not material to the safety and soundness of the institution and are being
addressed. In general, significant risks and problems are effectively identified, measured and controlled.
3. A rating of 3 indicates management and board performance that need improvement or risk management practices that are less than satisfactory given the nature of the institution's activities. The capabilities of management or the board of directors may be insufficient for the type, size or condition of the institution. Problems and significant risks may be inadequately identified, measured, monitored or controlled.
4. A rating of 4 indicates deficient management and board performance or risk management practices that are inadequate considering the nature of an institution's activities. The level of problems and risk exposure is excessive. Problems and significant risks are inadequately identified, measured, monitored or controlled and require immediate action by the board and management to preserve the soundness of the institution. Replacing or strengthening management or the board may be necessary.
5. A rating of 5 indicates critically deficient management and board performance or risk management practices. Management and the board of directors have not demonstrated the ability to correct problems and implement appropriate risk management practices. Problems and significant risks are inadequately identified, measured, monitored or controlled and now threaten the continued viability of the institution. Replacing or strengthening management or the board of directors is necessary.

### 2.1.8.4 Earning Quality

Earnings are the initial safeguard against the risks of engaging in the banking business and represent the first line of defense against capital depletion resulting from shrinkage in asset value. (Saunders and Cornett; 2004: 25) Earnings performance should also allow the bank to remain competitive by providing the resources required to implement management's strategic initiatives.

## Rating the Earnings Factor

1. Earning rated 1 is strong. Earnings are more than sufficient to support operations and maintain adequate capital and allowance levels after are given to asset quality, growth and other factors affecting the quality, quantity and trend of earnings.
2. Earnings rated 2 would be satisfactory and sufficient support operations and maintain adequate capital and allowances levels after consideration is given to asset quality, growth and other factors affecting the quality, quantity and trend of earnings. Earnings that are relatively static or even experiencing a slight decline, may receive a 2 rating provide the institution's level of e3arnings is adequate in view of the assessment factors listed above.
3. Earnings rated 3 may need to improve. Earnings may not fully support operations and provide for the accretion of capital and allowance levels in relation to the institution's overall condition, growth and other factors affecting the quality, quantity and trend of earnings.
4. A rating of 4 indicates earnings that are deficient. Earnings are insufficient to support operations and maintain appropriate capital and allowances levels. Erratic fluctuations in net income or net interest margin, the development of significant negative trends, nominal or unsustainable earnings, intermittent losses, or a substantive drop in earnings from the previous years may characterize institutions so rated.
5. A rating of 5 indicates earnings that are critically deficient. A FI with earnings rated 5 is experiencing losses that represent a distinct threat to its viability through the erosion of capital.

### 2.1.8.5 Liquidity

In evaluating the adequacy of a FI's liquidity position, consideration should be given the level and prospective sources of liquidity compared to funding needs, as well as to the adequacy of funds management practices relative to the institution's size, complexity and risk profile. In general, funds management
practices should ensure that an institution is able to maintain a level of liquidity sufficient to meet its financial obligation in a timely manner and to fulfill the legitimate banking needs of its community.

## Rating the Liquidity Factors

1. A rating of 1 indicates strong liquidity levels and well-developed funds management practices. The institution has reliable access to sufficient sources of funds on favorable terms to meet present and anticipated liquidity needs.
2. A rating of 2 indicates satisfactory liquidity levels and finds management practices. The institution has access to sufficient sources of funds on acceptable terms to meet present and anticipated liquidity needs. Modest weaknesses may be evident in funds management practice.
3. A rating of 3 indicates liquidity levels or funds management practices in need of improvement. Institutions rated 3 may lack ready access to funds on reasonable terms or may evidence significant weaknesses in funds management practices
4. A rating of 4 indicates deficient liquidity levels or inadequate funds management practices. Institutions rated 4 may not have or be able to obtain a sufficient volume of funds on reasonable terms to meet needs.
5. A rating of 5 indicates liquidity levels or funds management practices so critically deficient that the continued viability of the institution is threatened. Institutions rated 5 require immediate external financial assistance to meet maturing obligations or other liquidity needs.

### 2.1.9 BASEL Capital Accord

The BASEL committee on banking supervision (BCBS) is a committee of banking supervisory authorities that was established by central bank governors of the group of ten countries in 1975. it consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France,

Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the united States. It usually meets at the bank for international Settlements (BIS) in BASEL, where it's permanent is located. (BIS; 2005: 7).

Starting with its publication of "International Convergence of Capital Measurement and Capital Standards" in July 1988, popularly known as BASEL Capital Accord, BCBS set out a minimum capital requirement of 8 percent for banks. Prior to that, the committee introduced 25 core principles on effective banking supervision. In 1996, the committee incorporated market risk in the 1988 capital accord. With a major revision of the 1988 accord, there followed by the revised publication of the committee's first round of proposals for revising the capital adequacy framework in June 1999 popularly known as BASEL capital Accord. Since then, it is revised in January 2001, April 2003 and released its final revised framework updated in November 2005. In this accord, the concept and rationale of the three pillars (minimum capital requirements, supervisory review and market discipline) approach was introduced, on which the revised framework is based. In the revised framework, BCBS retains key elements of the 1988 capital adequacy framework, including the general requirement for banks to hold total capital equivalent to at least 8 percent of their risk-weighted assets; the basic structure of the 1996 market risk amendment regarding the treatment of market risk; and definition of eligible capital. (BIS; 2005:8)

The new BASEL capital accord (BASEL ), shall be applicable to internally active banks all over the world with effect from end of 2006. Implementing the new accord in Nepal has been a challenging task for the supervisors as well as FIs. Hence, certain preparatory homework is needed to Nepalese financial system to implement BASEL . NRB and FIs need to have coordinated effort efficiency in Nepalese banks and FIs to establish certain baseline for the effective implementation of BASEL . In this regard, second interaction
program was held in Nepal with the banks executive to make them aware of the new development. The commercial banks so far has shown positive attitude towards the implementation of BASEL . "New capital accord implementation preparatory core committee" was drafted "NRB's concept paper on new capital accord". According to the program of new capital accord implementation, concept paper was forwarded to all the commercial banks for comments and recommendations. A form was also developed so that commercial banks classify their exposures as per the new approach, which was reviewed by the "BASEL- implementation working group". NRB has adopted Basel core principles for effective supervision as guideline for supervision of commercial banks. Core principle methodology adopted by BCBS provides a uniform template for both self-assessment and independent assessment. It involves four part qualitative assessment system: compliant, largely compliant, materially non-compliant and non-compliant. For each principle essential and additional criteria are defined. To achieve a "compliant" assessment with a principle, all essential and additional criteria must be met without any significant deficiencies. A "largely compliant" assessment is given if only minor shortcomings are observed, and these are not seen as sufficient to raise serious doubts about the authority's ability to achieve the objective of that principle. A "materially non-compliant assessment is given when the shortcoming is sufficient to raise doubts about the authority's ability to achieve compliance, but substantial progress towards compliance has been achieved.

There is no doubt that the new accord though complex carries a lot of virtues and will be a milestone in improving banks internal mechanism and supervisory process and beneficial to the commercials banks.

### 2.1.10 Personal Loans

Many times on financial crisis one has to borrow money from neighbor or acquaintance. These kinds of loans which are available in banks and other financial institution are known as personal loans. A personal loan can be a
secured or unsecured one depending upon the company's practices, loanee credit history etc.
"A personal loan is a sum of money that an adult person borrows to meet his financial needs and requirements. An individual can take an easy personal loan or a guaranteed personal loan for a variety of reasons. Loans for personal debt help provide funds to purchase that dream boat or car, pay for mortgage arrears or home improvement requirements- in fact personal loans help meet most of the financial emergencies that an individual can think of.

Personal loans are often the most preferred type of loan on account of their flexibility. The two most common types of personal loans are:

- Secured Loans and
- Unsecured Loans

Both these options are linked to the choice that one can use any fixed asset to serve as collateral to secure an easy personal loan." (www.iseekloans.com, March, 2009)

### 2.1.10.1 Secured Personal Loan

"A secured personal loan is so called due to the security or the collateral that is involved in the whole process of lending. It is;

- A loan that requires the consumer to provide the lender with some form of collateral or security- that is his property or his home, either mortgaged or owned- other than just his verbal assurance of repaying the loan.
- In other words, it is a loan that has been secured on the borrower's assets." (www.iseekloans.com, March, 2009)


## Characteristics of Secured Personal Loan

- The loan that is secured against some sort of fixed or immovable/movable asset is known as secured loan.
- This sort of guaranteed personal loans is easily available on account of the collateral that is provided alongside; thereby making the lending institutions more comfortable in forwarding the loan.
- Secured personal loans involve rates of interest that are much lower and easy options for repayment.
- Due to the collateral that is provided, banks and financial institutions usually are unperturbed by defaults in payments or by debts that are pending.
- Secured personal loans are made available to the individual within a period of thirty days after submitting an application.


## Benefits of Secured Personal Loan

1. Secured Personal Loans can be repaid over a longer period of time, with a lower monthly payment.
2. They are cost effective on account of the low rates of interest charged on the loan.
3. Since the loan has been secured by pledging the assets of the borrower, the risk to the lender's investment is greatly reduced.
4. Their easy availability is another factor. Very few loan applications for secured loans are turned down; since the loan would be secured on the strength of the borrower's assets.

## Points to Remember Before Opting For A Secured Personal Loan

- If the borrower agrees to a secured personal loan using his home as collateral, he should be prepared for the eventuality of forfeiting it to the lender, should he not make his loan payments and interest on time and according to the agreed terms.
- The lender would sell the property to recover his money and cover any additional expenses incurred while doing so.
- Before he signs up for even a small secured personal loans, the borrower has to make sure that he can afford the monthly payments. It would be in his best interest therefore to read the credit agreement terms carefully, paying special attention to the interest rate and term of the loan, the total amount that is payable, and the repayments required.


### 2.1.10.2 Unsecured Personal Loans

"Here the loan is not secured against the loan amount borrowed. But consequently the lender would be charging a higher rate of interest, taking into account the high risk involved in lending the sum. Here, failure to make regular payments would see the lender fall back on the credit agreement, and resort to legal claims to make good the loss incurred. This is a loan where;

- The borrower is not required to pledge any collateral, to secure the loan. It is also called a Signature Loan, as the only collateral required is the borrower's signature. This loan is based solely on the borrower's credit, can be utilized for any purpose, and does not insist upon home ownership and great credit.
- Since this instant unsecured personal loans are not been secured on the assets of the borrower, the creditor has no right to these assets, should the borrower default on repayments.
- Since this instant unsecured personal loans are not been secured on the assets of the borrower, the creditor has no right to these assets, should the borrower default on repayments.
- However, the lender has the right to legal claims to recover his money, which may entail the borrower having to sell his assets to repay the loan.
- As this loan is not secured, and as the lender's risk is consequently high, the rate of interest would be higher than that charged on a personal secured loan.
- The lender just may limit the unsecured personal loan to exclude certain purpose." (www.iseekloans.com, March, 2009)


## Benefits of Unsecured Personal Loan

- There is no requirement of collateral, and the borrower need not pledge his assets to procure the loan.
- There are no financial statements or no documents of tax returns required. The borrower is not encumbered with too much paper work if he chooses to opt for instant unsecured personal loans. This is most lenders of guaranteed unsecured personal loans, offer what is called a stated loan, where the borrowers' information on his financial circumstances need not be ratified by supporting financial statement or tax returns documents. This is especially advantageous for those firms or individuals whose reported financial statement are not necessarily a reflection of their true earnings.
- There is no requirement of a business plan for an unsecured personal loan. Traditionally lenders require an elaborate business plan complete with pro forma's and budget. This procedure can be both costly and time consuming, with no guarantee of securing loan approval. But with unsecured personal loans there is no need for a business plan.
- Quick approvals, and an easy application process, are other attractive benefits of this loan.


## Is An Unsecured Personal Loan A Viable Alternative To The Secured

Loan? (www.iseekloans.com, March, 2009)

- In such a loan, the sum of money given by the bank or by the financial institution is not secured by any collateral.
- The financial institution gives the loan solely based on the credit worthiness of the individual concerned.
- As this loan is unsecured, the lender's risk in the investment is high, and therefore the borrower is charged a higher rate of interest than those applying for a secured loan.
- Apart from this, the lender also conducts a thorough check on the financial worth of the individual applying for the loan.
- These sorts of loans are usually reserved for tenants, for those persons who do not own homes, and for those who are not in any position to offer any collateral.
- Because there is no collateral to secure these loans, lenders are usually wary of giving large sums of money.
- In case of default on the part of the borrower, then the lender would have no option but to resort to the clauses of the credit agreement, and approach legal aid to help recover the money.


### 2.1.10.3 Short Term Personal Loans

"Short term personal loans are loans intended to meet an immediate, short term cash need, such as an unexpected bill, vacation, or other unique circumstance. Short term loans are taken out from a lending institution, and then repaid during the specified amount of time, usually one week to three weeks. Short term personal loans are not intended to finance large projects or fix a financial problem that is considered long-term, but rather to meet a cash crunch need.

## Types of Short Term Personal Loans

Since a short term personal loan is any loan with a short pay-back time, there are several different types out there for your use.

## Bad Credit Short Term Personal Loan

A bad credit loan personal short term might be available for someone with a poor credit rating or history. If you have poor credit, you can expect two things when apply for short term personal loans. First, your interest rate will be high. You are considered a bad risk when you have a poor credit rating, and as such,
you will pay more for the privilege of borrowing money. Second, you can expect to need some sort of collateral to secure your loan. This ensures that he lender will get their money back if you do not pay back your loan.

## Short Term Unsecured Loans

If one is concerned with putting valuable items up as collateral for personal loan, then looking for a short term unsecured personal loan is best. With unsecured personal loans, one will not have to put up any collateral. A character loan will be given, meaning that one's good credit history will back the loan, as well as personal guarantee that he will pay back the loan. Again, expect this to be a higher interest rate than a secured loan." (www.iseekloans.com, March, 2009)

## Secured Short Term Personal Loans

"Secured short term personal loans are loans where one put some sort of collateral behind the loan. A car title loan is an example of a secured short term personal loan. If one does not pay back the loan, his possession will be taken by the lender. But since there is security backing the loan, one can usually get a lower interest rate." (www.iseekloans.com, March, 2009)

## Difference Between Short Term Loans and Payday Loans

"Short term personal loans are very similar to payday loans. The main difference is that short term personal loans are not necessarily due on payday, whereas payday loans are due when the next paycheck arrives. A short term personal loan is going to have a short term, but not necessarily a due date on your next paycheck. Also, short term personal loans that are secured will have some form of collateral. Many times this is the title to your car or some other valuable that you might have. If you do not pay back the loan, the lender can repossess this item." (www.iseekloans.com, March, 2009)

### 2.1.10.4 Factors to be considered before taking Personal Loans

There are many banks and financial institutions that would help provide you with easy personal loans or guaranteed personal loans. (www.iseekloans.com, March, 2009)

- As all of them would have their own sets of terms and conditions by which they abide, it would be smart to consult with as many lending institutions before arriving at a decision of your personal loan. Talk to them about your financial requirements, check the quotes that they give you and decide whether you would be able to repay any loans for personal debt that you may take.
- Once you complete the formalities of taking a loan, the banks would give you a lump sum of money. This could be repaid over a period of time. The longer the period of repayment, the lesser the interest rate.
- The lenders have a duty to inform you of the rate of interest that they would be charging you.
- Be sure to investigate whether the rate of interest charged is fixed or floating.
- Check with the banks also about any other prepayment penalties, and other costs incurred for securing a loan.


### 2.2 Review of Previous Thesis

Lila Prasad Ojha (2002) conducted a study degree on "Lending practices: A study on NABIL Bank Ltd., SCB Nepal Ltd. and Himalayan Bank Ltd." with the objective of:

- To determine the liquidity position, the impact of deposit in liquidity and its effect on lending practices.
- To measure the bank's lending strength.
- To analyze the portfolio behavior of lending and measuring the ratio and volume of loans and advances made in agriculture, priority and productive sector.
- To measure the lending performances in quality, efficiency and its contribution in total income.

The study was conducted on the basis of secondary data. The research findings of the study are:

- The measurement of liquidity has revealed that the mean current ratio of all the three banks is not widely varied. All of them are capable in discharging their current liability by current asset.
- The measurement of lending strength in relative terms has revealed that the total liability to total assets of SCBNL has the highest ratio. The high ratio is the result of high volume of shareholder equity in the liability mix. Himalayan Bank Ltd. has high volume of saving and fixed deposits as compared to current deposit resulting into low ratio of non-interest bearing deposits to total deposits ratio compared to the combined mean.
- The ratio of investment to loan and advances has measured the total portion of investment in total of investment and loans and advances. The mean ratio among the banks does not have deviated significantly.
- The loans and advances and investment to deposits ratio has shown that NABIL Bank Ltd. has deployed the highest proportion of its total deposits in earning activities. This is the indicative of that in fund mobilizing activities NABIL Bank Ltd. is significantly better.
- The portfolio analysis has revealed that the flow of loans and advances in agriculture sector is the lowest priority sector among these commercial banks. The contribution of all the banks in industrial sector is appreciable. The contribution made by Himalayan Bank Ltd. in industrial sector is the greatest and that of SCBNL is the least.
- The lending in commercial purpose is highest in case of NABIL Bank Ltd. and least in case of SCBNL. SCBNL has highest contribution in service sector lending. It has contributed $25.47 \%$ of its total credit in general use and social purpose.
- The total income to total assets ratio measures the earning power of each rupee employed by the bank. NABIL's ratio in this case is the best. The ratio of total income to total expenses reflects the earning capacity of a rupee of expenses. The productivity of expenses in SCBNL is the best.
- The performance of SCBNL is significantly better than other two banks in case of profitability. EPS is highest in case of SCBNL.

Bhumi Prasad Pathak (2003) made a study on "Loan Investment and Collection Analysis of Development Banking of Agricultural Development Bank Nepal". The main objective of study is to examine the achievement of purpose wise, term wise and development region wise loan investment, collection and outstanding from 1998/99 to 200/03. He also study the impact of last ten years' political insurgency and instability to farmer and ADBL with special reference to loan investment collection and outstanding.

His research shows that actual loan investment and collection is in an increasing ratio and weighted growth rate is in a fluctuating trend. He suggests that agricultural sector requires more investment, similarly ADBL has to invest continue in current profitable purpose, revise unprofitable purpose, have to identify other possible line of agricultural opportunities as well as should create portfolios on different purpose to be operationally and economically viable.

Nani Ratna Bajracharya (2003), has made a study on topic "A Study on the Deposits and Loans and Advances of NBL during the year 1973-1978".

The main objectives of the study are to describe and analyze the deposits and loans and advances of Nepal Bank Limited. His other specific objectives were
a. To show the change in deposits and according to change in the rate of interest.
b. To examine the relationship between deposits and loans and advances of the bank.
c. To show the resources (deposits) mobilization of the bank.

During the course of analyzing the problem, he found that there is the increasing trend in deposits but there is up and down position in the case of loans and advances. The deposits increased in increasing trend up to 1973 and after that it is increased in the 1974, but decreased in 1975 and 1976 and again increased in 1977 and 1978. But it is due to the cause of changes in rate interest. Hits finding shows that the interest rate structure affects both deposits and loans and advances. If there is a provision of suitable interest rate, then the bank can enjoy maximum profit. Hence, according to his research the bank should decrease the rate of interest. He also found the situation of inequality in branch expansion process. He comments on centralization of loan granting procedure. He found that most of the powers are concentrated on board of directors and head office. To invest a small amount of loan, it requires the approval of head office. He heavily criticizes the system.

Deepak Man Shrestha (2003) has made a study on "Role of Agricultural Development Bank of Nepal". The main objective of the study were to analyze the loan disbursement of purpose wise and term wise by Agricultural Development Bank, to analyze the loan recovery and to find the loan outstanding. For this he studies the related topic for 7 years commencing from FYs 1996/97 to 2002/03. His study revealed that bank liberal policy helps to covers all types of customers. All of them are unbiased while granting loan. Bank activity increases which shows increasing demand for agricultural credit. He comments that the actual performance of the bank is not satisfactory because it is not able to provide loan especially in rural sector where bank financing is almost necessary. The reason for slow collection may be attributed to liberal policy, weak supervision and controlling system negligence towards collection procedure, poor economic condition of the people, overvaluation of security on loan sanctioning period and difficult geographic condition of the country. The present unstable situation negatively affects the activities and bank has experienced five general managers for a period of lost ten years. Bank has provided discount on interest, extended the repayment period of loan to
recover loan on time. Likewise, bank introduced reform program which focused priority to make farmers more labourious, take loan with refundable capability, maintain financial discipline and restructure past due loans. Besides, this it organizes training programs to staff as well as farmers, which may bring changes in performance of bank.

Tikaram Banstala (2005), has made of study on "Loan disbursement and repayment pattern of Agricultural Development Bank of Nepal". He studies whether there is a significant relationship between loan disbursement and repayment. His second research question is whether there is a significant relationship between loan disbursement and outstanding loan. His first question is solved through the test of Karl Pearson's coefficient of correlation and regression analysis. Repayment loan of Bank seems to be directly proportional to the loan disbursement because both have shown movement in same direction i.e. there was increasing order. His second question is also solved through same analysis. Outstanding loan of the banks seems to be directly proportional to the loan disbursement. Because both have shown movement in same direction i.e. there was increasing order. Based on the conclusion of the study and analysis of findings, his five most important recommendations are,
i. The amount of the bank's loan disbursement is largely dependent upon the amount of loan repayment in each year. So, the bank should encourage to farmers by various policy such as subsidy on loan, interest etc. for the repayment of loans.
ii. The bank should provide the facilities of supervision for the effective utilization of its loans.
iii. The decision making power should be given to managers of branch and sub-branch offices to disburse large amount of loan to farmers.
iv. The bank should focus to disburse short-term loan.
v. The bank should case to collect long-term loan.

Saroj Prasad Pyakurel (2006), has made a study on "Loan Disbursement and Recovery of Nepal Bank Limited" with the objectives to see loan disbursement process, to analyze the condition of loan recovery and to see the efficiency of new management on recovery of loan. For this trend analysis, ratio analysis and correlation and regression analysis have been used. Trend for five years is studied and interpreted. Loan disbursement trend shows that it is decreasing every year. He says that what ever the disbursement process is, profit is not decreasing.

Similarly, he analyzes the priority sector loan into agriculture sector, cottage industry, service sector, hire purchase and deprived sector loan. Although he presents the data of disbursement, collection and outstanding figures are excluded. He found the present disbursement and recovery of NBL is normal. It is able to recover due loan unexpected. By the conflict bank reduces many branches and it can not disburse additional loan in priority sector. He opinion is that the new management of NBL is not only effective for collecting over due loan, it is effective in managing every essential factors of bank. He concludes that bank face a lot of fraud by bad-employee in case of loan disbursement, recovery and expenses. His recommendation is related with supervision and inspection. His view is that the system must be strict, effective and efficient. Loan should be provided with technical facility. Policy should be formulated taking into consideration of geographical features and infrastructure development of the country.

### 2.3 Research Gap

All of the above researches made are primarily concerned with the loan management in different financial institutions. However, no scholar has made research on specific criteria like personal loan. Hence, this study tries to fulfill such gap and makes research on specific area, personal loan management of NIC Bank.

## CHAPTER - III

## RESEARCH METHODOLOGY

This chapter deals about the research methodology by which the collected data are analyzed to get result, in this regard, this chapter is carried out to diagnose the loan management of NIC Bank.

### 3.1 Research Design

"A research design is a specification of methods and procedures for acquiring the information needed. It is the overall operational pattern of frame work for the project that stipulates what information is to be collected, from which sources and by what procedures." (Paul \& Donald; 1999: 134)

This study is carried out to get the empirical result of personal loan management of NIC Bank. To conduct the study, both analytical and descriptive research approach are adopted fro the reality available historical data. All the data used in this study are primary and secondary in nature.

### 3.2 Period Covered

The study covered the period of 3 years from the fiscal year 2005/06 to 2007/08. Data were taken from NIC Bank and the analysis was made on the basis of these three years' data. Also, the questionnaires are disbursed and the primary data analysis is done.

### 3.3 Population and Sample

According to the annual report of NRB 2007/08, there are altogether 25 commercial banks operating Nepal. The concern of the study is on the loan management of NIC Bank. So, NIC Bank is taken as sample to achieve the research objectives.

### 3.4 Nature and Sources of Data

To fulfill the predetermined objectives that are set up for the study, both primary and secondary sources are included. The secondary data was obtained from the head office of NIC Bank, Kamaladi. Annual report and the data obtained from the account department of NIC Bank are considered the main source of secondary data. Besides these, various bulleting available, websites, journals are also taken into consideration. The primary data are collected from field survey.

### 3.5 Data Collection Procedures

a. Primary data: The primary data were collected from the field directly during survey period. The researcher conducted mainly questionnaire and other; interview, discussion, and made direct observation to obtain required information.
b.Secondary data: The secondary data were collected from the secondary sources. These secondary sources consist of two sources.
i. Internal sources:

- Annual report of NIC Bank from the fiscal year 2005/06 to 2007/08.
- Prospectus of NIC Bank
- Website of NIC Bank
- Booklets etc.
ii. External sources:
- Books and publications
- Journal and articles.
- Local newspaper.
- Previous reports etc.


### 3.6 Data Processing and Analysis

Data collected from questionnaire are in row form. They are classified and tabulated in the required format. Simple arithmetic percentage tools and ranking are used for analyzing in primary data. Data collected from secondary sources are analyzed and presented in bar diagram, trend analysis, regression line, correlation coefficient, mean and percentage.

### 3.7 Tools used

Different tools were used to enlighten the problems and prospects of stock growth in Nepal.
a) Financial tools:
i. Percentage change in Loans and Advances
ii. Non-Performing Loan to Total Loan
iii. Loan Loss Provision to Total Loan
iv. Composition of Personal Loan
v. Personal Loan to Total Loan
vi. Interest on Personal Loan
vii. Personal Loan to Total Deposit
viii. Borrowings to Personal Loan
ix. Personal Loan to Total Assets
b) Statistical tools:
i. Percentage
ii. Pie chart
iii. Graph
iv. Ranking
v. Trend Analysis
vi. Regression Analysis

## CHAPTER - IV

## DATA PRESENTATION AND ANALYSIS

### 4.1 Secondary Data Analysis

This section provides interpretation and analysis of secondary data. Thus this section is exclusively devoted for the analysis of loan management, especially personal loan management of NIC Bank, trend analysis of personal loan, and regression equation of personal loan with other variables. For doing such presentation statistical tools such as regression analysis, bar diagram, t statistics, coefficient of variation, mean and standard deviation are used.

### 4.1.1 Loans and Advances of NIC Bank

Loans and advances is the major income generating component of bank. The bank provides loan to the public with the objective of earning high interest. Major portion of the banks expenditure and the net profit are covered from the interest income. Higher the bank provides loan in recoverable sector, higher the chances of interest. The Loans and advances provided by NIC Bank for the three year period, starting from the fiscal year 2005/06 is presented in the Table 4.1.

Table 4.1
Loans and Advances of NIC Bank

| Fiscal Year | Loans and Advances | Percentage Change |
| :--- | :---: | :---: |
| $2005 / 06$ | 6655.96 | 41.26 |
| $2006 / 07$ | 8941.40 | 34.34 |
| $2007 / 08$ | 11264.68 | 25.98 |
| Mean | $\mathbf{8 9 5 4 . 0 1}$ |  |
| S.D. | $\mathbf{1 8 8 1 . 5 2}$ |  |
| C.V. \% | $\mathbf{2 1 . 0 1}$ |  |

Source: Annual Reports, NIC Bank

The above table shows that the loans and advances of NIC Banks followed increasing trend during the three years period taken for research. The loans and advances of NIC was Rs. 6655.96 in the fiscal year 2005/06, Rs. 8941.40 millions in the fiscal year 2006/07 and Rs. 11264.68 millions in the fiscal year 2007/08. NIC remained able to disburse almost two-fold of the amount as loan and advances in the fiscal year 2007/08 compared to the amount disbursed in the fiscal year 2005/06. This indicates the growing demand of loan in NIC Bank in each fiscal year. In average, Rs. 8954.01 millions is disbursed during the three fiscal year taken for research. Similarly, the coefficient of variation (C.V.) is $21.01 \%$, which means that the loans and advances disbursement fluctuated by $21.01 \%$ during the three year period.

Figure 4.1
Loans and Advances of NIC Bank


### 4.1.2 Non Performing Loan to Total Loan

Non performing loan is the irregularity of loanee in the installment amount payment. The non performing loan endangers the loan amount. Lower the non performing loan, the higher is the bank chances of collecting the amount of loan disbursed along with the interest. The non performing loan and its ratio to total loan of NIC Bank are depicted in the Table 4.2.

## Table 4.2

Non Performing Loan to Total Loan

| Fiscal Year | Non Performing Loan | Total Loan | Ratio \% |
| :--- | :---: | :---: | :---: |
| $2005 / 06$ | 179.55 | 6655.96 | 2.70 |
| $2006 / 07$ | 101.14 | 8941.40 | 1.13 |
| $2007 / 08$ | 98.17 | 11264.68 | 0.87 |
| Mean |  |  | $\mathbf{1 . 5 7}$ |
| S.D. |  |  | $\mathbf{0 . 8 1}$ |
| C.V. \% |  |  | $\mathbf{5 1 . 6 0}$ |

Source: Annual Reports, NIC Bank

The above table showed that the ratio of non-performing loan to total net loan has followed decreasing trend during the entire period. The ratio started from $2.70 \%$ in the fiscal year 2005/06, decreased to $1.13 \%$ in the fiscal year 2006/07 and ended with $0.87 \%$ in the fiscal year 2007/08. In average the nonperforming loan to total net loan of NIC Bank was $1.57 \%$ during the three periods. However, the coefficient of variation of $51.60 \%$ indicated that there is no uniformity in the ratio of non-performing loan to total net loan disbursed. The decreasing trend of such ratio indicated lower risk on loan and improved lending policy.

Figure 4.2
Non Performing Loan to Total Loan

4.1.3 Loan Loss Provision to Total Loan

Each bank has to keep loan loss provision for the loan disbursed. Nepal Rastra Bank has set $1 \%$ loan loss provision for pass loan, $25 \%$ loan loss provision for sub standard loan, $50 \%$ loan loss provision for doubtful loan and $100 \%$ loan loss provision for Bad loan. The overall loan loss provision of NIC Bank kept for the loan disbursed is presented in the Table 4.3.

Table 4.3

## Loan Loss Provision to Total Loan

| Fiscal Year | Loan Loss Provision | Total Loan | Ratio \% |
| :--- | :---: | :---: | :---: |
| $2005 / 06$ | 246.16 | 6655.96 | 3.70 |
| $2006 / 07$ | 187.25 | 8941.40 | 2.09 |
| $2007 / 08$ | 200.66 | 11264.68 | 1.78 |
| Mean |  |  | $\mathbf{2 . 5 2}$ |
| S.D. |  |  | $\mathbf{0 . 8 4}$ |
| C.V.\% |  |  | $\mathbf{3 3 . 3 5}$ |

Source: Annual Reports, NIC Bank

The above table showed the loan loss provision of NIC Bank during the period. The table showed that in aggregate, NIC Bank kept $3.70 \%$ provision for loan loss in the fiscal year 2005/06, 2.09\% in the fiscal year 2006/07 and $1.78 \%$ in the fiscal year 2007/08. The decreasing provision on loan indicated decreasing risk on loan collection. The annual reported in Appendix also showed that NIC has truly followed the NRB directives on loan loss provision, viz, $1 \%$ for pass loan, $25 \%$ for Sub Standard, $50 \%$ for Doubtful and $100 \%$ for Bad loan. In average, NIC Bank kept $2.52 \%$ provision for loan loss and the coefficient of variation on such loan is $33.35 \%$, which indicated higher inconsistency in average in the loan loss provision of NIC Bank.

## Figure 4.3

## Loan Loss Provision to Total Loan



### 4.1.4 Composition of Personal Loan

Personal loan is provided to the individuals after fulfilling the bank's paper requirement to meet their personal interest. Likewise, NIC Bank also provides personal loan in the heading of Ghar Subidha to build new house or restructure the existing one and NIC Sajilo Karza for the other requirements of individuals. The total personal loan and the amount disbursed in the heading of Ghar Subidha and Sajilo Karza within the three year periods starting from 2005/06 are presented in the Table 4.4.

Table 4.4
Composition of Personal Loan

| Fiscal |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Year | Total Personal Loan $^{2}$| Ghar Subidha |  | NIC Sajilo Karza |  |
| :---: | :---: | :---: | :---: |
|  |  | Amount | \% |
| Amount | \% |  |  |
| $2005 / 06$ | 1125.68 | 1125.68 | 100 |
| $\ldots \ldots$. | $\ldots \ldots$ |  |  |
| $2006 / 07$ | 2479.85 | 1561.72 | 62.98 |
| $2007 / 08$ | 3297.89 | 2073.44 | 62.87 |
| Mean | $\mathbf{2 3 0 1 . 1 4}$ | $\mathbf{1 5 8 6 . 9 5}$ | $\mathbf{7 5 . 2 8}$ |
| $\mathbf{1 0 7 1 . 2 9}$ | $\mathbf{3 7 . 0 8}$ |  |  |
| S.D. | $\mathbf{8 9 5 . 7 6}$ | $\mathbf{3 8 7 . 3 3}$ | $\mathbf{1 7 . 4 8}$ |
| $\mathbf{1 5 3 . 1 6}$ | $\mathbf{0 . 0 5}$ |  |  |
| C.V.\% | $\mathbf{3 8 . 9 3}$ | $\mathbf{2 4 . 4 1}$ | $\mathbf{2 3 . 2 2}$ |
| $\mathbf{1 4 . 3 0}$ | $\mathbf{0 . 1 3}$ |  |  |

The above table showed the composition of personal loan in NIC Bank. The table showed that the personal loan of NIC Bank is dominated by Ghar Subidha, which covered $100 \%$ in the fiscal year 2005/06, $62.98 \%$ in the fiscal year 2006/07 and $62.87 \%$ in the fiscal year 2007/08. Similarly, NIC Sajilo Karza covered $37.02 \%$ in the introduction year 2006/07 and $37.13 \%$ in the fiscal year 2007/08 of personal loan. The table showed that the percentage of Ghar Subidha to Personal Loan followed decreasing trend while the percentage of NIC Sajilo Karza followed increasing trend, indicating good prospect of NIC Sajilo Karza in the upcoming years. However in average, Ghar subidha occupied $75.28 \%$ of the personal loan and Sajilo Karza occupied $37.08 \%$ of the personal loan. The C.V. of Sajilo Karza ( $0.13 \%$ ) to personal loan and Ghar Subidha ( $23.22 \%$ ) to personal loan indicated that there is greater uniformity in Sajilo Karza to personal loan compared to that of Ghar Subidha to personal loan.

Figure 4.4

## Composition of Personal Loan



### 4.1.5 Personal Loan to Total Loan

The Personal Loan to Total Loan of the bank measures the portion of loan provided as personal loan. This ratio depicts the bank efficiency in mobilizing the loan amount in the personal sector. The personal loan to total loan of NIC Bank from the fiscal year 2005/06 to 2007/08 is presented in the Table 4.5.

## Table 4.5

## Personal Loan to Total Loan

| Fiscal <br> Year | Total <br> Loan | Total Personal Loan |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Ghar Subidha |  | Sajilo Karza |  | Total |  |
|  |  | Amount | \% | Amount | \% | Amount | \% |
| 2005/06 | 6655.96 | 1125.68 | 16.91 |  | $\ldots$ | 1125.68 | 16.91 |
| 2006/07 | 8941.4 | 1561.72 | 17.47 | 918.13 | 10.27 | 2479.85 | 27.73 |
| 2007/08 | 11264.68 | 2073.44 | 18.41 | 1224.45 | 10.87 | 3297.89 | 29.28 |
| Mean |  | 1586.95 | 17.60 | 1071.29 | 10.57 | 2301.14 | 24.64 |
| S.D. |  | 387.33 | 0.62 | 153.16 | 0.30 | 895.76 | 5.50 |
| C.V. \% |  | 24.41 | 3.52 | 14.30 | 2.84 | 38.93 | 22.33 |

Source: Account Department, NIC Bank

The above table showed that the portion of personal loan on total loan disbursement followed increasing trend during the period. The total personal loan increased from Rs. 1125.68 millions in the fiscal year 2005/06 to Rs. 3297.89 millions in the fiscal year 2007/08. Similarly, the personal loan to total loan increased from $16.91 \%$ in the fiscal year 2005/06 to $29.28 \%$ in the fiscal year 20074/08. Likewise, viewing each category, the personal loan on Ghar Subidha covered $16.91 \%$ of the total loan disbursed in the fiscal year 2005/06 and $18.41 \%$ in the fiscal year 2007/08. Also, the NIC Sajilo Karza covered $10.27 \%$ and $10.87 \%$ of the total loan in the fiscal year 2006/07 and 2007/08 respectively.

Figure 4.5

## Personal Loan to Total Loan



### 4.1.6 Interest on Personal Loan

The main motto of the bank in providing loan is to earn interest. Similarly, the primary objective of NIC bank in providing the personal loan is to generate interest. The total interest earned by NIC Bank from the Personal Loan and its component for the period covering 2005/06 to 2007/08 is presented in the Table 4.6.

## Table 4.6

Interest on Personal Loan

| Fiscal <br> Year | Total <br> Interest | Total Personal Interest |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Ghar Subidha | Sajilo Karza |  | Total |  |  |
|  |  | \% | Amount | \% | Amount | \% |  |
| $2005 / 06$ |  | 99.28 | 20.46 | $\ldots \ldots .$. | $\ldots \ldots$. | 99.28 | 20.46 |
| $2006 / 07$ |  | 140.71 | 23.02 | 93.37 | 15.28 | 234.08 | 38.30 |
| $2007 / 08$ |  | 199.67 | 23.70 | 126.36 | 15.00 | 326.03 | 38.70 |
| Mean |  | $\mathbf{1 4 6 . 5 5}$ | $\mathbf{2 2 . 3 9}$ | $\mathbf{1 0 9 . 8 7}$ | $\mathbf{1 5 . 1 4}$ | $\mathbf{2 1 9 . 8 0}$ | $\mathbf{3 2 . 4 9}$ |
| S.D. |  | $\mathbf{4 1 . 1 9}$ | $\mathbf{1 . 3 9}$ | $\mathbf{1 6 . 5 0}$ | $\mathbf{0 . 1 4}$ | $\mathbf{9 3 . 1 2}$ | $\mathbf{8 . 5 1}$ |
| C.V. \% | $\mathbf{2 8 . 1 1}$ | $\mathbf{6 . 2 3}$ | $\mathbf{1 5 . 0 1}$ | $\mathbf{0 . 9 2}$ | $\mathbf{4 2 . 3 7}$ | $\mathbf{2 6 . 1 8}$ |  |

Source: Account Department, NIC Bank
The above table showed that the NIC Bank earned higher interest in each year form personal loan compared to that of previous year. The bank earned Rs.
99.28 millions, representing $20.46 \%$ of total bank's interest earning in the fiscal year 2005/06, Rs. 234.08 millions, representing $38.30 \%$ of total interest earning in the fiscal year 2006/07 and Rs. 326.03 millions, representing $38.70 \%$ of total interest earning in the fiscal year 2007/08 from the personal loan. Similarly, viewing each category, the interest earning from Ghar Subidha ranged from Rs. 99.28 millions in the fiscal year 2005/06 to Rs. 199.67 millions in the fiscal year 2007/08 and represented $20.46 \%$ of total interest earning in the fiscal year 2005/06 to $23.70 \%$ in the fiscal year 2007/08. Similarly, the interest earning on NIC Sajilo Karza ranged from Rs. 93.37 millions in the fiscal year 2005/06, representing $15.28 \%$ of total interest earning, to Rs. 126.36 millions in the fiscal year 2007/08, representing $15.00 \%$ of the total interest earning.

Similarly, in average the bank earned Rs. 219.80 millions from personal loan as an interest, which represented $32.49 \%$ of the total interest earning and the coefficient of variation on such interest earning ratio is $26.18 \%$, indicating higher inconsistency. Likewise, the bank collected Rs. 146.55 millions and Rs. 109.87 millions as interest from Ghar Subidha and NIC Sajilo Karza respectively.

Figure 4.6
Interest on Personal Loan

4.1.7 Personal Loan to Total Deposit

The personal loan to total deposit measures how efficiently the bank has mobilized the deposit collection in providing personal loan. The personal loan to total deposit of NIC Bank from the fiscal year 2005/06 is presented in the Table 4.7.

Table 4.7
Personal Loan to Total Deposit

| Fiscal Year | Personal Loan | Deposit | Ratio \% |
| :--- | :---: | :---: | :---: |
| $2005 / 06$ | 1125.68 | 8765.95 | 12.84 |
| $2006 / 07$ | 2479.85 | 10068.23 | 24.63 |
| $2007 / 08$ | 3297.89 | 13084.69 | 25.20 |
| Mean |  |  | $\mathbf{2 0 . 8 9}$ |
| S.D. |  |  | $\mathbf{5 . 7 0}$ |
| C.V.\% |  |  | $\mathbf{2 7 . 2 7}$ |

Source: Annual Reports, NIC Bank

The above table showed that the personal loan to total deposit of NIC Bank followed increasing trend during the period taken for study. The personal loan to total deposit ranged from $12.84 \%$ in the fiscal year 2005/06 to $25.20 \%$ in the fiscal year 2007/08. This indicates that NIC Bank is using more of its deposit in disbursing to personal loan in each fiscal year. In average, NIC Bank mobilized $20.89 \%$ of its deposits in providing personal loan. However, the C.V. of personal loan to total deposit indicated that the ratio varied by $27.27 \%$ and there is inconsistency in the flow of personal loan to total deposit.

## Figure 4.7

## Personal Loan to Total Deposit



### 4.1.8 Borrowing to Personal Loan

The borrowing to personal loan explicates the relationship between them. This ratio measures the bank policy of financing the personal loan through borrowings, internal financing. The ratio of borrowing to personal loan in the three period of NIC Bank is presented in the Table 4.8.

Table 4.8

## Borrowing to Personal Loan

| Fiscal Year | Borrowings | Personal Loan | Ratio \% |
| :--- | :---: | :---: | :---: |
| $2005 / 06$ | 457.71 | 1125.68 | 40.66 |
| $2006 / 07$ | 352.13 | 2479.85 | 14.20 |
| $2007 / 08$ | 335.00 | 3297.89 | 10.16 |
| Mean |  |  | $\mathbf{2 1 . 6 7}$ |
| S.D. |  |  | $\mathbf{1 3 . 5 3}$ |
| C.V. \% |  |  | $\mathbf{6 2 . 4 1}$ |

Source: Annual Reports, NIC Bank
The above table showed that the borrowings to total personal loan of NIC Bank. The table showed that borrowings of NIC bank covered $40.66 \%$ of total personal loan in the fiscal year 2005/06. Similarly, 14.20 \% of the personal loan and $10.16 \%$ of the personal loan of NIC Bank in the fiscal year 2006/07 and 2007/08 are financed through external borrowings respectively. In average,

NIC Bank financed $21.67 \%$ of its personal loan through borrowings. However, the C.V. of $62.41 \%$ indicated that there is no uniformity in borrowings to total personal loan. The C.V. shows that NIC Bank has no benchmark of financing personal loan through borrowings.

Figure 4.8

## Borrowing to Personal Loan



### 4.1.9 Personal Loan to Total Assets

This ratio measures how much of the total assets are covered by the personal loan. The personal loan to total loan depicts the bank policy of providing personal out of the total assets. The ratio of personal loan to total assets of NIC Bank is presented in the Table 4.9.

Table 4.9
Personal Loan to Total Assets

| Fiscal Year | Personal Loan | Total Assets | Ratio \% |
| :--- | :--- | :--- | :--- |


| $2005 / 06$ | 1125.68 | 10383.60 | 10.84 |
| :--- | :---: | :---: | :---: |
| $2006 / 07$ | 2479.85 | 11679.34 | 21.23 |
| $2007 / 08$ | 3297.89 | 15238.74 | 21.64 |
| Mean |  |  | $\mathbf{1 7 . 9 0}$ |
| S.D. |  |  | $\mathbf{5 . 0 0}$ |
| C.V. \% |  |  | $\mathbf{2 7 . 9 1}$ |

Source: Annual Reports, NIC Bank
The above table showed that the personal loan to total assets of NIC Bank is in increasing trend within the three year period. The ratio started with $10.84 \%$ in the fiscal year 2005/06, reached to $21.23 \%$ in the fiscal year 2006/07 and ended with $21.64 \%$ in the fiscal year 2007/08. The increasing trend of ratio indicated that more portion of assets have been mobilized in personal loan disbursement compared to the previous year. In average, $17.90 \%$ of the total assets have been mobilized in providing personal loan. However, the C.V. of $27.91 \%$ implied that there is inconsistency in the personal loan to total assets.

Figure 4.9
Personal Loan to Total Assets

4.1.10 Simple Correlation and Regression Analysis

To find the relationship of personal loan and person interest with other variables, the Karl Pearson's correlation coefficient and simple regression lines have been analyzed.

### 4.1.10.1 Personal Loan (PL) and Total Deposit (TD)

### 4.1.10.1.1 Correlation between Personal Loan and Deposit

The correlation coefficient between Personal Loan (PL) and Deposit (TD) and the probable error is presented in the following Table 4.10.

Table 4.10
Correlation between Personal Loan and Deposit

| Bank | r | Relationship | $\mathbf{r}^{\mathbf{2}}$ | P.E. | 6 P.E. | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| NIC | 0.9335 | + ve (Direct) | 0.8714 | 0.0501 | 0.3005 | Significant |

(Source: Appendix III)

The Table 4.10 depicts the relationship between Personal Loan and Total Deposit of NIC Bank. Coefficient of correlation between Personal Loan and Total Deposit is 0.9335, which is highly positive, indicating Personal Loan increases with the increase in Total Deposit. The coefficient of determination, 0.8714 indicates that $87.14 \%$ variation in Personal Loan is explained by Total Deposit. Also, the probable error is 0.0501 , and 6 P.E. is 0.3005 . The higher ' $r$ ' value ( 0.9335 ) than 6 P.E. ( 0.3005 ) implies that the relationship between total deposit and personal loan is statistically significant and personal loan increases with the increase in total deposit.

### 4.1.10.1.2 Regression Analysis: Personal Loan (PL) on Total Deposit (TD)

Let Personal Loan be denoted by Y and Total Deposit be denoted by X, then the regression line of Personal Loan (Y) on Total Deposit ( X ) is given by: (Appendix III)

$$
Y \quad=\quad a+b X
$$

$$
\text { PL } \quad=\quad-2617.27+0.4623 \times \text { TD }
$$

Table 4.11
Regression Analysis of Personal Loan and Total Deposit

| Banks | No. of <br> observation (n) | Constant <br> (a) | Regression <br> coefficient (b) | T-value |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NIC | 3 | -2617.27 | 0.4623 | 2.60 |  |
| (Source: Appendix III) |  |  |  |  |  |

With respect to the above regression result of Personal Loan (PL) on Total Deposit (TD), beta coefficient (0.4623) is positive. The beta coefficient of indicates that 1 rupee increase in Total Deposit leads to Re. 0.4623 increase in Personal Loan. Hence the relationship between Personal Loan and Total Deposit is direct. However, the calculated t-value (2.60) shows that the relationship between Personal Loan and Total Deposit is insignificant as the calculated value of ' $t$ ' is lower than the tabulated ' $t$ ' (4.3027) at 5 percent level of significance and 2 degree of freedom.

### 4.1.10.2 Personal Loan (PL) and Borrowings (BO)

### 4.1.10.2.1 Correlation between Personal Loan (PL) and Borrowings (BO)

The correlation between PL and BO and the probable error determined in Appendix III is summarized in the below Table 4.12.

Table 4.12
Correlation between PL and BO

| Bank | $\mathbf{r}$ | Relationship | $\mathbf{r}^{2}$ | P.E. | 6 P.E. | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| NIC | -0.9682 | - ve (Indirect) | 0.9374 | 0.0244 | 0.1462 | Insignificant |

(Source: Appendix III)

The Table 4.15 depicts the relationship between personal loan (PL) and total borrowings (BO). According to this table, the correlation coefficient between personal loan and borrowings is -0.9682 , which is highly negative and indicates that personal loan decreases with the increase in borrowings. Likewise, the coefficient of determination ' $r$ ' ' indicates that $93.74 \%$ variation in personal
loan is explained by borrowings. Also, the value of ' $r$ ' $(-0.9682)$ is lower than the 6 P.E. (0.1462), which indicates that the relationship between personal loan and borrowings is statistically insignificant and implies that personal loan does not always decrease with the increase in borrowings.

### 4.1.10.2.2 Regression Analysis : Personal Loan (PL) and Borrowings (BO)

Let the personal loan (PL) be denoted by Y and borrowings (BO) be denoted by X , then the regression line of personal loan on borrowings is given by;

$$
\begin{aligned}
\mathrm{Y} & =a+b \mathrm{X} \\
\mathrm{PL} & =8400.69-15.98 \times \mathrm{BO}
\end{aligned}
$$

Table 4.13

## Regression Analysis of PL on BO

| Bank | no. of <br> observation (n) | constant (a) | Regression <br> coefficient (b) | T-value |
| :---: | :---: | :---: | :---: | :---: |
| NIC | 3 | 8400.69 | -15.98 | -3.87 |

(Source: Appendix III)

With respect to the above regression result of Personal Loan (PL) on borrowings (BO), the beta coefficient is -15.98 , which means that a one rupee increase in borrowings leads to an average of about Rs. 15.98 decrease in the personal loan holding other variables constant. Similarly, the t-statistics indicates that the result is statistically insignificant at $5 \%$ level of significance because the computed value of ' $t$ ' (-3.87) is lower than the tabulated value of ' $t$ ' (4.3027).

### 4.1.10.3.1 Correlation between Personal Loan and Net Profit

Let ' $r$ ' be the correlation coefficient between Personal Loan and Net Profit and P.E. be the probable error.

Table 4.14

## Correlation between Personal Loan and Net Profit

| Bank | $\mathbf{r}$ | Relationship | $\mathbf{r}^{\mathbf{2}}$ | P.E. | 6 P.E. | Remarks |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| NIC | 0.9805 | + ve (Direct) | 0.9614 | 0.0150 | 0.0903 | Significant |

(Source: Appendix III)

As shown in Table 4.17, the correlation coefficient between Personal Loan and Net profit of NIC Bank is 0.9805, which indicates highly positive relationship between the two variables. Coefficient of determination ( $\mathrm{r}^{2}$ ) is 0.9614 , which shows Personal Loan of NIC explains $96.14 \%$ of variations in the Net Profit. Since, 'r' value (0.9805) is greater than 6 P.E. (0.0903), the relationship between personal loan and net profit is significant and net profit increases with the increase in personal loan.

### 4.1.10.3.2 Regression Analysis: Net Profit (NP) on Personal Loan (PL)

Let Net Profit (NP) be denoted by Y and Personal Loan (PL) be denoted by X, then the regression line of Y on X is given by:

| Y | $=a+b \mathrm{X}$ |
| :--- | :--- |
| NP | $=27.10+0.6321 \times$ PL |

Table 4.15
Regression Analysis of NP on PL

| Bank | no. of <br> observation (n) | constant (a) | Regression <br> coefficient (b) | T-value |
| :---: | :---: | :---: | :---: | :---: |
| NIC | 3 | 27.10 | 0.6321 | 4.99 |
| (Source: Appendix III) |  |  |  |  |

The Table 4.15 depicts the linear relationship between net profit (NP) and Personal Loan (PL). The beta coefficient on regression line is 0.6321 , which indicates that one rupee increase in personal loan (PL) leads to an average Rs. 0.6321 increase in net profit (NP), all other things being same. Likewise, the
calculated ' $t$ ' value (4.99) is higher than the tabulated ' $t$ ' value (4.3027) at $5 \%$ level of significance and 2 d.f., which means that there is significant relationship between net profit and personal loan.

### 4.1.11 Trend Analysis

The trend analysis aids to predict the future value on the basis of the past years. To know position of personal loan of NIC Bank in future the trend analysis has been used.

### 4.1.11.1 Trend Analysis of Ghar Subidha

Let Year (X) 1, 2 and 3 denotes fiscal year 2005/06, 2006/07 and 2007/08 respectively. Then regression line of Ghar Subidha $(\mathrm{Y})$ on year is given by;

$$
\begin{array}{ll}
\mathrm{Y} & =a+b \mathrm{X} \\
\mathrm{GS} & =639.19+473.88 \mathrm{X}
\end{array}
$$

The trend value of Ghar Subidha Loan (GS) calculated from this regression equation is presented in the following table.

Table 4.16
Trend Analysis of Ghar Subidha

| Fiscal Year | Ghar Subidha |  |
| :---: | :---: | :---: |
|  | Actual GS | Trend GS |
| $2005 / 06$ | 1125.68 | 1113.07 |
| $2006 / 07$ | 1561.72 | 1586.95 |
| $2007 / 08$ | 2073.44 | 2060.83 |
| $2008 / 09$ |  | 2534.71 |
| $2009 / 10$ |  | 3008.59 |

Source: Appendix IV

The table shows that the trend Ghar Subidha of NIC Bank follows increasing trend. The table depicts that the Ghar Subidha Loan in the fiscal year 2008/09
and $2009 / 10$ will be Rs. 2534.71 millions and Rs. 3008.59 millions respectively. Likewise, the regression equation shows the positive relation of Ghar Subidha with the year and in each fiscal year the loan amount will increase by Rs. 473.88 millions. This might be because of the increasing interest of general people on holding possession on land and building.

Figure 4.10
Trend Analysis of Ghar Subidha


### 4.1.11.2 Trend Analysis of NIC Sajilo Karza

Let Sajilo Karza (SK) be the dependent variable on time period, independent variable and Sajilo Karza and time period be denoted by Y and X respectively. Then, the regression line of Sajilo Karza (Y) on time period (X) is given by;

$$
\text { SK }=611.81+306.32 \mathrm{X}
$$

The calculated trend value of Sajilo Karza (SK) with the aid of regression line is presented in the Table 4.17.

Table 4.17

| Fiscal Year | Sajilo Karza |  |
| :---: | :---: | :---: |
|  | Actual Value | Trend Value |
| $2006 / 07$ | 918.13 | 918.13 |
| $2007 / 08$ | 1224.45 | 1224.45 |
| $2008 / 09$ |  | 1530.77 |
| $2009 / 10$ |  | 1837.09 |

Source: Appendix IV

The table shows that on the basis of past trend, NIC Bank will disburse Rs. 1530.77 millions and Rs. 18737.09 millions as Sajilo Karza in the fiscal year 2008/09 and 2009/10 respectively. The regression line of Sajilo Karza on time period also indicates that the Sajilo Karza will increase by Rs. 306.32 millions annually if the other variable (611.81) remains constant.

Figure 4.11
Trend Analysis of Sajilo Karza (SK)


### 4.1.11.3 Trend Analysis of Total Personal Loan

The regression line of Personal Loan (PL) on year is given by: (Appendix-IV)

$$
\mathrm{PL}=128.93+1086.11 \mathrm{X}
$$

The trend value of Total Personal Loan calculated on the basis of the above regression equation is presented in the Table 4.18.

Table 4.18
Trend Analysis of Total Personal Loan (PL)

| Fiscal Year | Personal Loan |  |
| :---: | :---: | :---: |
|  | Actual PL | Trend PL |
| $2005 / 06$ | 1125.68 | 1215.04 |
| $2006 / 07$ | 2479.85 | 2301.14 |
| $2007 / 08$ | 3297.89 | 3387.25 |
| $2008 / 09$ |  | 4473.35 |
| $2009 / 10$ |  | 5559.46 |

Source: Appendix IV
The regression line shows that in each fiscal year, the Personal Loan increases by Rs. 1086.11 millions. Also, the table shows that the predicted Personal Loan of NIC Bank in the fiscal year 2008/09 and 2009/10 will be Rs. 4473.35 millions and Rs. 5559.46 millions respectively.

Figure 4.12
Trend Analysis of Total Personal Loan (PL)


### 4.1.11.4 Trend Analysis of Ghar Subidha Interest (GSI)

Let Year (X) 1, 2 and 3 denotes fiscal year 2005/06, 2006/07 and 2007/08 respectively. Then regression line of Ghar Subidha Interest $(\mathrm{Y})$ on year is given by;

$$
\begin{array}{ll}
\mathrm{Y} & =a+b \mathrm{X} \\
\mathrm{GSI} & =46.16+50.20 \mathrm{X}
\end{array}
$$

The trend value of Ghar Subidha Interest (GSI) calculated from this regression equation is presented in the Table 4.19.

Table 4.19

## Trend Analysis of Ghar Subidha Interest (GSI)

| Fiscal Year | Ghar Subidha Interest |  |
| :---: | :---: | :---: |
|  | Actual Value | Trend Value |
| $2005 / 06$ | 99.28 | 96.36 |
| $2006 / 07$ | 140.71 | 146.55 |
| $2007 / 08$ | 199.67 | 196.75 |
| $2008 / 09$ |  | 246.94 |
| $2009 / 10$ |  | 297.14 |

Source: Appendix IV

The table shows that the trend Ghar Subidha Interest of NIC Bank follows increasing trend. The table depicts that the Ghar Subidha Interest amounts in the fiscal year 2008/09 and 2009/10 will be Rs. 246.94 millions and Rs. 297.14 millions respectively. Likewise, the regression equation shows the positive relation of Ghar Subidha Interest with the year and in each fiscal year the interest amount will increase by Rs. 50.20 millions.

Figure 4.13


### 4.1.11.5 Trend Analysis of NIC Sajilo Karza Interest

Let the dependent variable, NIC Sajilo Karza Interest be denoted by Y and the independent variable, Year be denoted by X . Then, the regression equation of NIC Sajilo Karza Interest (SKI) on Year is given by;

$$
\mathrm{SKI}=60.38+32.99 \mathrm{X}
$$

Table 4.20
Trend Analysis of NIC Sajilo Karza Interest (SKI)

| Fiscal Year | Sajilo Karza Interest |  |
| :---: | :---: | :---: |
|  | Actual Value | Trend Value |
| $2006 / 07$ | 93.37 | 93.37 |
| $2007 / 08$ | 126.36 | 126.36 |
| $2008 / 09$ |  | 159.35 |
| $2009 / 10$ |  | 192.34 |

Source: Appendix IV

The table shows that the estimated value of interest on NIC Sajilo Karza will be Rs. 159.35 millions and Rs. 192.34 millions in the fiscal year 2008/09 and 2009/10 respectively. Similarly, the regression line of NIC Sajilo Karza Interest
on time period indicates that in each year, the interest increases by Rs. 32.99 millions, if the other variable (60.38) remains constant.

Figure 4.14
Trend Analysis of NIC Sajilo Karza Interest (SKI)


### 4.1.11.6 Trend Analysis of Total Personal Loan Interest

Let the interest on personal loan (PLI) be the dependent variable on time period. Then, the regression line of Personal Loan Interest (Y) on time period $(\mathrm{X})$ is given by;

$$
\text { PLI } \quad=\quad-6.95+113.38 \mathrm{X}
$$

The calculated trend value of total interest on Personal Loan using regression line is presented in the Table 4.21.

Table 4.21

| Fiscal Year | Total Personal Loan Interest |  |
| :---: | :---: | :---: |
|  | Actual PLI | Trend PLI |
| $2005 / 06$ | 99.28 | 106.42 |
| $2006 / 07$ | 234.08 | 219.80 |
| $2007 / 08$ | 326.03 | 333.17 |
| $2008 / 09$ |  | 446.55 |
| $2009 / 10$ |  | 559.92 |

Source: Appendix IV
The table shows that the estimated value of total interest on personal loan will be Rs. 446.55 millions and Rs. 559.92 millions in the fiscal year 2008/09 and 2009/10 respectively. Similarly, the regression line of total personal loan interest on time period indicates that the interest on personal loan has positive relationship with the time period and thus in each year, the personal loan interest increases by Rs. 113.38 millions, if the other variable (-6.95) remains constant.

Figure 4.15
Trend Analysis of Total Personal Loan Interest (PLI)


### 4.2 Primary Data Analysis

A total of 35 respondents were targeted to survey randomly from Customers, Shareholders and Employee of NIC Bank. Among these, 10 respondents were chosen from Shareholders, 10 from Employee, and 15 from Customers. However, 2 respondents from Shareholders and 3 respondents from Employee didn't show interest to respond, as a result only 30 respondents have to be taken for the questionnaire purpose. The number of respondents taken represented $85.71 \%$ of the total population targeted. Likewise, the respondents are classified in terms of their age and sex as given in Table below.

Table 4.22

## Classification of Respondents

| S.N. | Basis of Classification | Male | Female | Number | Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Occupation |  |  |  |  |
|  | Shareholders | 5 | 3 | 8 | 27 |
|  | Employee | 4 | 3 | 7 | 23 |
|  | Customers | 9 | 6 | 15 | 50 |
|  | Total | 18 | 12 | 30 | 100 |
| 2 | Age |  |  |  |  |
|  | Below 25 | 6 | 3 | 9 | 30 |
|  | 25 to 40 | 9 | 7 | 16 | 53 |
|  | 40 above | 3 | 2 | 5 | 17 |
|  | Total | 18 | 12 | 30 | 100 |

Source: Field Survey, 2009
As given in table, $60 \%$ of the respondents were male where as $40 \%$ were female. Similarly, $30 \%$ of the respondents were from the age group below 25 years, $53 \%$ were between 25 to 40 years and $17 \%$ were 40 above. Likewise, $27 \%$ of the respondents were Shareholders, $23 \%$ of the respondents were Employee, 50\% of the respondents were Customers.

### 4.2.1 Efficiency in Loan Management

To examine the efficiency of NIC Bank in managing loan, the respondents were asked to express their view on this matter. The responses obtained from them are presented in the following Table.

Table 4.23

## Efficiency in Loan Management

| Responses | Number of Respondents |  | Total |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Shareholder | Employee | Customer | Responses | $\%$ |
| Yes | 6 | 6 | 9 | 21 | 70 |
| No | 2 | 1 | 4 | 7 | 23 |
| Don't Know | 0 | 0 | 2 | 2 | 7 |
| Total | $\mathbf{8}$ | $\mathbf{7}$ | $\mathbf{1 5}$ | $\mathbf{3 0}$ | $\mathbf{1 0 0}$ |

Source: Opinion Survey, 2009

The above table showed that the majority of the respondents ( $70 \%$ ), 21 out of 30, affirmed that NIC Bank is efficient in loan management, while $23 \%$ of the respondents, 7 out of 30 , said that the bank is inefficient and $7 \%$ of the respondents, 2 out of 30, remained neutral. Looking each category, the majority of shareholder, 6 out of 8 , employee, 6 out of 7 and customer, 9 out of 15, strongly affirmed that NIC Bank is efficient in loan management. Hence, considering the majority, it can be concluded that NIC Bank efficiently manages the loan.

Figure 4.16
Efficiency in Loan Management


### 4.2.2 Appropriateness of Interest Rate on Ghar Subidha

NIC Bank charges $7.99 \%$ to $11.49 \%$ interest rate on Ghar Subidha, personal loan, depending upon the nature and amount of loan taken. To investigate
whether such interest rate pattern is appropriate, the respondents were asked to express their view.

Table 4.24
Appropriateness of Interest Rate on Ghar Subidha

| Responses | Number of Respondents |  | Total |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Shareholder | Employee | Customer | Responses | $\%$ |
| Yes | 4 | 5 | 4 | 13 | 43 |
| No | 2 | 0 | 9 | 11 | 37 |
| Don't Know | 2 | 2 | 2 | 6 | 20 |
| Total | $\mathbf{8}$ | $\mathbf{7}$ | $\mathbf{1 5}$ | $\mathbf{3 0}$ | $\mathbf{1 0 0}$ |

Source: Opinion Survey, 2009

The above table showed that the majority of the respondents (43\%), 13 out of 11, said that the existing interest rate on Ghar Subidha, personal loan, is appropriate for loan disbursement. Similarly, $37 \%$ of the respondent, 11 out of 30, said that such interest rate is not appropriate and $20 \%$ of the respondents, 6 out of 30 , remained neutral. However, the majority of shareholders, 4 out of 8 and employee, 5 out of 7 only supported that the existing interest rate on Ghar Subidha is appropriate. In contrast, the majority of Customer, 9 out of 15 , said that the interest rate on Ghar Subidha is not appropriate. Eventually, gazing the overall majority ( $43 \%$ ), it can be concluded that the interest rate on Ghar Subidha is appropriate. However, the bank should consider the opinion of Customer as well and should charge appropriate interest rate.

Figure 4.17
Appropriateness of Interest Rate on Ghar Subidha


### 4.2.3 Suggested Interest rate on Ghar Subidha

To know the opinion of the respondents on the interest rate in Ghar Subidha, personal loan, the respondents were asked to choose the interest rate that will suit the demand of customers. The responses achieved are presented in the following table.

Table 4.25
Suggested Interest rate on Ghar Subidha

| Responses | Number of Respondents |  | Total |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Shareholder | Employee | Customer | Responses | \% |
| Below $7.99 \%$ | 3 | 1 | 11 | 15 | 50 |
| $7.99 \%-11.49 \%$ | 4 | 5 | 4 | 13 | 43 |
| Above $11.49 \%$ | 1 | 1 | 0 | 2 | 7 |
| Total | $\mathbf{8}$ | $\mathbf{7}$ | $\mathbf{1 5}$ | $\mathbf{3 0}$ | $\mathbf{1 0 0}$ |

Source: Opinion Survey, 2009

The above table showed that the half of the respondents, 15 out of 30 , suggested that the interest rate below $7.99 \%$ will best suit the need of customer and thus increase the loan disbursement. Similarly, $43 \%$ of the respondents suggested that the existing interest rate is appropriate, while $7 \%$ of the respondents suggested that the interest rate above $11.49 \%$ is suitable. Looking
each category, the majority of the customer, 11 out of 15 , affirmed that the interest below $7.99 \%$ is the best interest rate pattern for Ghar Subidha, while the majority of the shareholders, 4 out of 8 and employee, 5 out of 7 suggested to continue the existing interest rate of $7.99 \%$ to $11.49 \%$. Hence, it can be concluded that each category of the respondents gave suggestion that serves their benefits, while looking the majority of the responses (50\%), it will be worthwhile if NIC bank slightly lowers its interest rate on Ghar Subidha and meet the demand of the customer.

Figure 4.18

## Suggested Interest rate on Ghar Subidha



### 4.2.4 Appropriateness of Interest Rate on NIC Sajilo Karza

NIC Bank charges an interest rate ranging from $0.85 \%$ to $1.00 \%$ per month on NIC Sajilo Karza depending upon the amount and period of loan. To investigate whether such interest rate pattern is appropriate, the respondents were asked to express their opinion. The opinions collected from the respondents are presented in the following table.

Table 4.26
Appropriateness of Interest Rate on NIC Sajilo Karza

| Responses | Number of Respondents | Total |
| :--- | :--- | :--- |


|  | Shareholder | Employee | Customer | Responses | \% |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Yes | 6 | 5 | 8 | 19 | 63 |
| No | 2 | 1 | 6 | 9 | 30 |
| Don't Know | 0 | 1 | 1 | 2 | 7 |
| Total | $\mathbf{8}$ | $\mathbf{7}$ | $\mathbf{1 5}$ | $\mathbf{3 0}$ | $\mathbf{1 0 0}$ |

Source: Opinion Survey, 2009

The above table showed that the majority of the respondents (63\%), 19 out of 30, said that the existing interest rate on NIC Sajilo Karza is appropriate. Only $30 \%$ of the respondents, 9 out of 30 and $7 \%$ of the respondents, 2 out of 30 said that the existing interest rate is not appropriate and don't know respectively. Also in each category, the majority of the respondents, 6 out of 8 shareholders, 5 out of 7 employees and 8 out of 15 customers, strongly affirmed that the existing interest rate suits the need of customers. Hence, it can be concluded that the interest rate of $0.85 \%$ to $1.00 \%$ per month in NIC Sajilo Karza, personal loan is appropriate in the present context.

Figure 4.19
Appropriateness of Interest Rate on NIC Sajilo Karza


### 4.2.5 Suggested Interest Rate on NIC Sajilo Karza

The respondents were asked to suggest the interest rate on NIC Sajilo Karza, personal loan that will best serve the need of loanee. The suggested responses obtained from the respondents are presented in the following table.

Table 4.27

## Suggested Interest Rate on NIC Sajilo Karza

| Responses | Number of Respondents |  | Total |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Shareholder | Employee | Customer | Responses | $\%$ |
| Below $0.85 \%$ | 1 | 2 | 5 | 8 | 27 |
| $0.85 \%-1.00 \%$ | 6 | 5 | 8 | 19 | 63 |
| Above $1.00 \%$ | 1 | 0 | 2 | 3 | 10 |
| Total | $\mathbf{8}$ | $\mathbf{7}$ | $\mathbf{1 5}$ | $\mathbf{3 0}$ | $\mathbf{1 0 0}$ |

Source: Opinion Survey, 2009

The above table showed that $63 \%$ of the respondents, 19 out of 30 , suggested the bank to continue the existing interest rate structure of $0.85 \%$ to $1.00 \%$ per month on the NIC Sajilo Karza, while $27 \%$ of the respondents, 8 out of 30, suggested to lower the interest rate below $0.85 \%$ per month. Also, $10 \%$ of the respondents, 3 out of 30 , suggested the bank to increase the interest rate above $1.00 \%$ per annum. However, considering the majority ( $63 \%$ ), it can be suggested that the bank continues the existing interest rate of $0.85 \%$ to $1.00 \%$ per month in NIC Sajilo Karza, personal loan.

Figure 4.20

## Suggested Interest Rate on NIC Sajilo Karza



### 4.2.6 Harassment on Paper Document

Before providing loan, the loanee should fulfill all the documents that the bank requires for loan disbursement. To examine whether the loanee is harassed by the paper document, the respondents were asked on this issue. The answers obtained from the respondents are presented in the below table.

Table 4.28
Harassment on Paper Document

| Responses | Number of Respondents |  | Total |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Shareholder | Employee | Customer | Responses | \% |
| Yes | 1 | 0 | 8 | 9 | 30 |
| No | 5 | 6 | 4 | 15 | 50 |
| Don't Know | 2 | 1 | 3 | 6 | 20 |
| Total | $\mathbf{8}$ | $\mathbf{7}$ | $\mathbf{1 5}$ | $\mathbf{3 0}$ | $\mathbf{1 0 0}$ |

Source: Opinion Survey, 2009

The above table showed that the majority of the respondent ( $50 \%$ ), 15 out of 30, said that the loanee of NIC Bank does not feel harass by the paper document required by NIC Bank for loan disbursement. Similarly, 30\% of the respondents, 9 out of 30 , affirmed that the loanee feels harassed by the paper document and $20 \%$ of the respondents, 6 out of 30 , said don't know on this topic. Looking each category, the majority of the shareholders, 5 out of 8 , and the majority of employee, 6 out of 7 , strongly opposed on the paper
harassment, while the majority of the customers, 8 out of 15 , said that they feel harass on the document required. It will be worthwhile if the bank traces out the causes of harassment on the paper document required, and reduces such harassment on the smooth circulation of personal loan.

Figure 4.21
Harassment on Paper Document


### 4.2.7 Satisfaction on Collateral Valuation

To examine whether the loanee of the bank are truly satisfied with the valuation of collateral done by NIC Bank while disbursing loan, the respondents were requested to express their view. The responses achieved from them are delineated in the following table.

Table 4.29
Satisfaction on Collateral Valuation

| Responses | Number of Respondents |  | Total |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Shareholder | Employee | Customer | Responses | $\%$ |
| Yes | 4 | 7 | 5 | 16 | 53 |
| No | 1 | 0 | 7 | 8 | 27 |
| Don't Know | 3 | 0 | 3 | 6 | 20 |
| Total | $\mathbf{8}$ | $\mathbf{7}$ | $\mathbf{1 5}$ | $\mathbf{3 0}$ | $\mathbf{1 0 0}$ |

Source: Opinion Survey, 2009
The above table depicted that the majority of the respondent (53\%), 16 out of 30, egged on that the loanee of the bank are satisfied with the collateral valuation done by the NIC Bank. However, $27 \%$ of the respondents, 8 out of

30, said that the loanee is not satisfied and $20 \%$ of the respondent, 6 out of 30 , remained neutral. Gazing each category, half of the shareholders, 4 out of 8 , and cent percent of the bank's employee, 7 out of 7 , strongly affirmed that the loanee is satisfied with the bank's valuation. While the majority of the customers, 7 out of 15 , said the loanees are not satisfied with the valuation. Hence, considering the overall responses, it can be concluded that the loanees are satisfied with the bank valuation, but the bank needs to consider the responses of the customer as well and should detect the reasons for dissatisfaction on loanee on bank's valuation.

Figure 4.22

## Satisfaction on Collateral Valuation



### 4.2.8 Time Period for Loan Disbursement

Normally NIC Bank takes ten to twenty days, depending upon the nature of loan, from the initial application day to disburse loan. To examine whether such time period is appropriate or not, the respondents were asked to express their view. The responses achieved from the respondents are presented in the following table.

Table 4.30
Time Period for Loan Disbursement

| Responses | Number of Respondents |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shareholder | Employee | Customer | Responses | \% |


| 5-10 days | 4 | 3 | 5 | 12 | 40 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 10-20 days | 4 | 4 | 9 | 17 | 57 |
| Above 20 days | 0 | 0 | 1 | 1 | 3 |
| Total | $\mathbf{8}$ | $\mathbf{7}$ | $\mathbf{1 5}$ | $\mathbf{3 0}$ | $\mathbf{1 0 0}$ |

Source: Opinion Survey, 2009

The above table showed that $57 \%$ of the respondents, 17 out of 30 , stated that 10-20 days is the appropriate time period for the loan disbursement from the date of application received. Likewise, $40 \%$ of the respondents, 12 out of 30, and only $3 \%$ of the respondents, 1 out of 30 , opined that $5-10$ days and above 20 days respectively is the appropriate time period for loan disbursement. Viewing each category, half of the shareholders, 4 out of 7 employees and 9 out of 15 customers opined that 10-20 days is the best time period for flowing loan. Eventually, on the basis of the majority, it can be concluded that NIC Bank is practicing best time period for loan disbursement.

Figure 4.23

## Time Period for Loan Disbursement



### 4.2.9 Major Determinants for Loan Disbursement

Various factors have to be considered to allure the loanee toward the bank. To know which factor affects most for the loanee to take loan from NIC Bank, the
respondents were asked to rank on the options provided. The ranked answers obtained from them are provided in the following table.

Table 4.31
Major Determinants for Loan Disbursement

| Indicators | Basis | Rank |  |  |  |  | Total | Weight | Mean Wt. | Overall Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |  |  |  |  |
| Paper Requirement | Total | 7 | 6 | 7 | 9 | 1 | 30 | 81 | 2.70 | 3 |
|  | Shareholder | 2 | 1 | 2 | 3 | 0 | 8 | 22 | 2.75 | 3 |
|  | Employee | 2 | 1 | 1 | 2 | 1 | 7 | 20 | 2.86 | 3 |
|  | Customer | 3 | 4 | 4 | 4 | 0 | 15 | 39 | 2.60 | 3 |
| Time Period | Total | 3 | 2 | 5 | 13 | 7 | 30 | 109 | 3.63 | 4 |
|  | Shareholder | 1 | 0 | 0 | 5 | 2 | 8 | 31 | 3.88 | 4 |
|  | Employee | 2 | 1 | 2 | 1 | 1 | 7 | 19 | 2.71 | 2 |
|  | Customer | 0 | 1 | 3 | 7 | 4 | 15 | 59 | 3.93 | 4 |
| Employee Behavior | Total | 0 | 0 | 4 | 3 | 23 | 30 | 139 | 4.63 | 5 |
|  | Shareholder | 0 | 0 | 2 | 0 | 6 | 8 | 36 | 4.50 | 5 |
|  | Employee | 0 | 0 | 0 | 1 | 6 | 7 | 34 | 4.86 | 4 |
|  | Customer | 0 | 0 | 2 | 2 | 11 | 15 | 69 | 4.60 | 5 |
| Interest Rate | Total | 10 | 13 | 5 | 2 | 0 | 30 | 59 | 1.97 | 1 |
|  | Shareholder | 3 | 4 | 1 | 0 | 0 | 8 | 14 | 1.75 | 1 |
|  | Employee | 2 | 4 | 1 | 0 | 0 | 7 | 13 | 1.86 | 1 |
|  | Customer | 5 | 5 | 3 | 2 | 0 | 15 | 32 | 2.13 | 2 |
| Collateral Valuation | Total | 10 | 9 | 9 | 2 | 0 | 30 | 63 | 2.10 | 2 |
|  | Shareholder | 2 | 3 | 3 | 0 | 0 | 8 | 17 | 2.13 | 2 |
|  | Employee | 1 | 1 | 3 | 2 | 0 | 7 | 20 | 2.86 | 3 |
|  | Customer | 7 | 5 | 3 | 0 | 0 | 15 | 26 | 1.73 | 1 |

Source: Opinion Survey, 2009
The table showed that the respondents ranked 1 for the interest rate, 2 for the collateral valuation, 3 for a the paper requirement, 4 for the time period and 5 for the employee behavior that affects most for the loanee in taking loan from NIC Bank. However, looking each category, the majority of the shareholders, 3 out of 8 , ranked 1 for interest rate, 2 out of 7 employees each ranked 1 for interest rate, paper requirement and time period, while the majority of the customers, 7 out of 15 , ranked 1 for the collateral valuation as the major factor to be considered by loanee in taking loan. So, on the basis of overall majority, it can be concluded that the interest rate is the major determinant in loan disbursement. However, the bank should adopt competitive interest rate,
appropriate collateral valuation, only necessary documents, suitable time period and good employee behavior for the efficient loan management.

### 4.2.10 Suggestion for Effective Personal Loan Management

Finally, the respondents were asked to give their valuable suggestions for the effective personal loan management. The suggestions obtained from them are presented in the following table.

Table 4.32
Suggestion for Effective Personal Loan Management

| Suggestion | Basis | Rank |  |  |  | Total | Weight | Mean Wt. | Overall <br> Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 |  |  |  |  |
| Careful Evaluation | Total | 14 | 12 | 3 | 1 | 30 | 51 | 1.70 | 1 |
|  | Shareholder | 4 | 3 | 1 | 0 | 8 | 13 | 1.63 | 1 |
|  | Employee | 5 | 2 | 0 | 0 | 7 | 9 | 1.29 | 1 |
|  | Customer | 5 | 7 | 2 | 1 | 15 | 29 | 1.93 | 1 |
| Appropriate Interest Rate | Total | 5 | 9 | 5 | 11 | 30 | 82 | 2.73 | 3 |
|  | Shareholder | 2 | 3 | 0 | 3 | 8 | 20 | 2.50 | 2 |
|  | Employee | 0 | 4 | 1 | 2 | 7 | 19 | 2.71 | 3 |
|  | Customer | 3 | 2 | 4 | 6 | 15 | 43 | 2.87 | 4 |
| Awareness on Customer | Total | 4 | 2 | 10 | 14 | 30 | 94 | 3.13 | 4 |
|  | Shareholder | 0 | 1 | 3 | 4 | 8 | 27 | 3.38 | 3 |
|  | Employee | 0 | 0 | 3 | 4 | 7 | 25 | 3.57 | 4 |
|  | Customer | 4 | 1 | 4 | 6 | 15 | 42 | 2.80 | 3 |
| Timely Collection | Total | 7 | 7 | 12 | 4 | 30 | 73 | 2.43 | 2 |
|  | Shareholder | 2 | 1 | 4 | 1 | 8 | 20 | 2.50 | 2 |
|  | Employee | 2 | 1 | 3 | 1 | 7 | 17 | 2.43 | 2 |
|  | Customer | 3 | 5 | 5 | 2 | 15 | 36 | 2.40 | 2 |

Source: Opinion Survey, 2009

The above table indicated that the respondents ranked 1 for careful evaluation, 2 for timely collection, 3 for appropriate interest rate and 4 for awareness of consumer for effective personal loan management. The table showed the majority of each category, 4 out of 8 shareholders, 5 out of 7 employee and 5 out of 15 customers ranked 1 for careful evaluation of the proposal and nature of loanee for taking loan, the intention of loanee for payment, the reputation of guarantor, the value of collateral kept for loan purpose is essential. Similarly, according the respondents, NIC Bank should follow strict policy to timely
collect the installment amount, adopt competitive interest rate to fascinate public for taking loan and conduct programs to aware customer about the unique scheme and facility that the bank has for loan takers.

### 4.3 Major Findings

The major findings derived from the analysis of primary and secondary data of NIC Bank related to loan management especially personal loan are as follows:

## Findings from Secondary Data

a. The loan and advances of NIC Bank increased almost by two-fold within the three years period. The loan and advances was Rs. 6655.96 millions in the fiscal year 2005/06 and reached to Rs. 11264.68 millions in the fiscal year 2007/08.
b. In average, the non performing loan covered $1.57 \%$ of the total loan and the ratio of non-performing loan to total loan followed decreasing trend within the three years period. Similarly, NIC Kept $2.52 \%$ loan loss provision of total loan in overall and the ratio is in decreasing trend.
c. NIC disbursed Rs. 1586.95 millions personal loan in Ghar Subidha and Rs. 1071.29 millions as NIC Sajilo Karza in average. In average, NIC disbursed Rs. 2301.14 millions personal loan within the three year periods. Likewise, Ghar Subidha and Sajilo Karza covered $75.28 \%$ and $37.08 \%$ respectively of the total personal loan disbursed.
d. Similarly, the personal loan of NIC Bank covered $24.64 \%$ of the Total Loan. Likewise, Ghar Subidha and Sajilo Karza represented 17.60\% and $10.57 \%$ of the Total Loan in average respectively. Also, the coverage of each personal loan and total personal loan is in increasing trend.
e. Interest on Ghar Subidha contributed $22.39 \%$ of the total interest in average. Similarly, interest on Sajilo Karza and total personal loan covered $15.14 \%$ and $32.49 \%$ of the total interest earning respectively. In average NIC earned Rs. 146.57 millions and Rs. 109.87 millions interest
on Ghar Subidha and Sajilo Karza respectively. In overall NIC earned Rs. 219.80 millions interest on Personal Loan.
f. Likewise, $20.89 \%$ of the total deposit and $17.90 \%$ of the total assets have been mobilized in Personal Loan in average. However, the borrowings contributed $21.67 \%$ of the financing for Personal Loan.
g. The correlation coefficient shows that there is high positive correlation ( +0.9335 ) between personal loan and total deposit. Also, the regression line indicated that one rupee increase in total deposit leads to Rs. 0.4623 rupee increase in personal loan. However, there is negative correlation (0.9682 ) between personal loan and borrowings and positive correlation $(+0.9805)$ between personal loan and net profit.
h. The trend analysis shows that Ghar Subidha will be Rs. 2534.71 millions and Rs. 3008.59 millions in the fiscal year 2008/09 and 2009/10 respectively. Similarly, Sajilo Karza will be Rs. 1530.77 millions and Rs. 1837.09 millions, total personal loan will be Rs. 4473.35 millions and 5559.46 millions, total interest from personal loan will be Rs. 446.55 and 559.92 millions in the fiscal year 2008/09 and 2009/10 respectively.

## Findings from Primary Data

a. $70 \%$ of the respondents said that NIC Bank is efficient in loan management. Similarly, $43 \%$ of the respondents stated that the existing interest rate in Ghar Subidha is appropriate and $50 \%$ of the respondents suggested that the interest rate below $7.99 \%$ will best suit the interest of customer.
b. Similarly, $63 \%$ of the respondents affirmed that the existing interest rate on NIC Sajilo Karza is appropriate and same percent suggest the bank to continue such interest rate. Also, half of the respondents explicated that the loanee does not fell harassment on the paper document required by bank for loan disbursement.
c. Likewise, $53 \%$ of the respondents opined that the loanees of NIC Bank are satisfied with the collateral valuation done by the bank. And $57 \%$ of the respondents suggested that the time period of 10-20 days is the best time for loan disbursement from the initial application day.
d. Also, the respondents ranked 1 for interest rate as the major determinant that the loanee considers before applying for loan and ranked 1 for careful evaluation of the loan proposal made by the loanee before disbursing loan for the effective management of Personal loan.

## CHAPTER - V SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 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 the two major functions, viz, 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 that banks are facing. In addition, various risk like credit risk, interest rate risk, liquidity risk, price risk, foreign exchange risk, transaction risk and so on are associated with lending. So, to disburse loan in the most productive and secure sector has become the target of each bank.

Each bank has categorized loan in various headings. One of them is personal loan, which is given to individual to meet his financial crisis by keeping collateral as security. NIC bank is also on the same runway and provides personal loan with the hope of increasing its net profit by collecting maximum amount of interest through personal loan. The bank emerged in Nepal's market since July, 1998 and currently providing services through sixteen branches. NIC bank disburses personal loan under two headings, viz, NIC Ghar Subidha and NIC Sajilo Karza. The Bank launched a unique retail product called "NIC Ghar Subidha" in 2005, which is a personal property finance suite of products with unique features never before introduced in the Nepali market. It aims to make possible the dream of every middle class Nepali family of living in one's
own house come true. Similarly, NIC Sajilo Karja (NSKza) is a simple overdraft facility developed to cater to the personal financing needs of salaried individuals, self-employed, professionals and owners of small family businesses.

The study has been conducted with the objective of giving true insight of personal loan management in NIC Bank. To achieve the objectives of the study different financial and statistical tools have been adopted. All of the analysis made revolves within the secondary data that have been collected mainly through the account department of concerned bank and primary data collected from the staff, shareholders and customers of the bank.

For the convenience, the study has been divided mainly into five main chapter, viz, a) Introduction, b) Review of Literature, c) Research Methodology, d) Data Presentation and Analysis and e) Summary, Conclusion and Recommendations.

### 5.2 Conclusion

On the basis of the analysis of the data and the major findings drawn up, it can concluded that the bank made major improvements in loan disbursement, which has increased almost by two-fold within the three year periods. In addition, the ratio of non-performing loan to total loan has also decreased in each year and the amount of non-performing loan also decreased, which helps to conclude that NIC not only speeds up in loan disbursement but also equally have good recovery policy. Similarly, the bank has increased its personal loan in each fiscal year and the personal loan has been dominated by Ghar Subidha rather than Sajilo Karza.

Also, it can be concluded that NIC bank has increased the portion of personal loan on total loan in each year. Along with this ratio, the coverage of personal loan interest on total loan has also increased, which clearly indicated the bank's good future in personal loan. Likewise, the mobilization of deposit amount on
personal loan has also increased. While in contrast, the mobilization of borrowings on the so called personal loan has decreased in each year. So, it can be concluded that the major portion of the personal loan of NIC bank comes from the deposit amount.

Similarly, on the basis of simple correlation and regression analysis, it can be considered that the increase in total deposit increases the amount of personal loan, the increase in the borrowings decreases the personal loan, and increase in personal loan increases the net profit of the bank. Also, the trend analysis implied that the personal loan along with the interest will grow up in the future.

Finally, on the basis of primary data, the researcher came to conclude that NIC bank is efficient in loan management and charges appropriate interest rates both on NIC Ghar Subidha and NIC Sajilo Karza. Similarly, the paper document maintained by the bank while disbursing loan is convenient and the valuation of collateral is also satisfactory. Eventually, it can be concluded that interest rate is the major determinant in personal loan disbursement and careful evaluation of the loan proposal is essential before disbursing loan.

### 5.3 Recommendations

On the basis of the major findings and the conclusion drawn, the following suggestions have been recommended to the bank for the enhancement of loan management.

- Although the loan and advances of NIC bank has increased in each year, the bank should quest the most productive and secure sector to overflow its loan and thus maximize its profit.
- The bank should scrutinize the loan proposal and the valuation of collateral shrewdly to ensure the chance of loan recovery.
- While disbursing personal loan, the background of both the loanee and the guarantor should be considered strictly to ensure loan recovery.
- The bank should try to reduce the practice of disbursing loan from the amount of borrowings to reduce interest liable on borrowings and increase the loan disbursement from deposits to increase interest income and thus to increase the net profit of the company.
- Along with the Ghar Subidha, NIC Sajilo Karza should also be increased and thus finally increase the personal loan amount. The bank should also introduce new scheme to disburse loan on the personal loan headings.
- NIC bank should try to collect the feedback from the customers and loanee on the requirements that the bank has set out for loan disbursement in order to decrease the harassment and increase the customer satisfaction.
- As interest rate is the most influencing factor that allures the loanee, NIC bank should charge the reasonable interest rate to sustain for long run and thus fascinate more customers toward it.
- It would be better if the bank strictly follows the participatory management and involves the lower level management as well while setting out new requirements and detecting the most determinant factors in personal loan disbursement.


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## APPENDIX - I

## Questionnaire

## Dear Sir/Madam,

I am conducting a research on "Loan Management of NIC Bank; with special Reference to Personal Loan", in partial fulfillment for the requirement of Degree of Master of Business Studies (MBS). I am preparing some questions about the study, which will help to know the loan management of NIC Bank. I request you to fill up this questionnaire from your side, which can be great help for me to conduct the research in this topic. I would be grateful to you for the contribution of your valuable time and effort.

Please note that all the questions are related to the Loan Management of NIC Bank.

Name : $\qquad$ Sex: M [ ] F [ ] Age : $\qquad$

## Occupation (Tick One):

Shareholders
Employee
Customer

Questions:

## (Please tick the best option for Question No. 1 to 8)

1. Do you think that NIC Bank is efficient in Loan Management?
i) Yes
ii) No
iii) Don't Know
2. Do you think that the interest rate charged in Ghar Subidha is appropriate?
i) Yes
ii) No
iii) Don't Know
3. In your opinion what should be the interest rate on Ghar Subidha?
i) Below $7.99 \%$
ii) $7.99 \%$ to $11.49 \%$
iii) Above 11.49\%
4. Do you think that the interest rate charged in NIC Sajilo Karza is appropriate?
i) Yes
ii) No
iii) Don't Know
5. In your opinion what should be the interest rate on NIC Sajilo Karza per month?
i) Below $0.85 \%$
ii) $0.85 \%$ to $1.00 \%$
iii) Above $1.00 \%$
6. Is the paper document maintained to disburse loan is harassing?
i) Yes
ii) No
iii) Don't Know
7. In your opinion, is the valuation done by NIC for mortgage value is satisfactory?
i) Yes
ii) No
iii) Don't Know
8. In your opinion, how many days should the bank take to disburse loan from the date of application received?
i) 5-10 days
ii) 10-20 days
iii) Above 20 days
(Please rank 1, 2, 3........., for Question No. 9 to 10)
9. In your opinion which of the following is the main influencing factor in loan disbursement (Rank 1 for the most)?
i) Paper Document
ii) Time Period
iii) Employee Behavior
iv) Interest Rate
v) Collateral Valuation
10. What do you suggest NIC Bank for the effective management of Personal Loan?
i) Careful Evaluation
ii) Appropriate Interest Rate
iii) Awareness on Consumer
iv) Timely Collection

APPENDIX- II
Classification of Respondents of Survey (Q.N. 1-11)

| S.N. | Stem | Shareholder | Employee | Customer | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Yes | 6 | 6 | 9 | 21 |
|  |  | (75) | (86) | (60) | (70) |
|  | No | 2 | 1 | 4 | 7 |
|  |  | (25) | (14) | (27) | (23) |
|  | Don't Know | 0 | 0 | 2 | 2 |
|  |  | 0 | 0 | (13) | (7) |
|  | Total | 8 | 7 | 15 | 30 |
|  |  | (100) | (100) | (100) | (100) |
| 2 | Yes | 4 | 5 | 4 | 13 |
|  |  | (50) | (71) | (27) | (43) |
|  | No | 2 | 0 | 9 | 11 |
|  |  | (25) | 0 | (60) | (37) |
|  | Don't Know | 2 | 2 | 2 | 6 |
|  |  | (25) | (29) | (13) | (20) |
|  | Total | 8 | 7 | 15 | 30 |
|  |  | (100) | (100) | (100) | (100) |
| 3 | Below 7.99\% | 3 | 1 | 11 | 15 |
|  |  | (38) | (14) | (73) | (50) |
|  | 7.99\%-11.49\% | 4 | 5 | 4 | 13 |
|  |  | (50) | (71) | (27) | (43) |
|  | Above 11.49\% | 1 | 1 | 0 | 2 |
|  |  | (13) | (14) | 0 | (7) |
|  | Total | 8 | 7 | 15 | 30 |
|  |  | (100) | (100) | (100) | (100) |
| 4 | Yes | 6 | 5 | 8 | 19 |
|  |  | (75) | (71) | (53) | (63) |
|  | No | 2 | 1 | 6 | 9 |
|  |  | (25) | (14) | (40) | (30) |
|  | Don't Know | 0 | 1 | 1 | 2 |
|  |  | 0 | (14) | (7) | (7) |
|  | Total | 8 | 7 | 15 | 30 |
|  |  | (100) | (100) | (100) | (100) |
| 5 | Below 0.85\% | 1 | 2 | 5 | 8 |
|  |  | (13) | (29) | (33) | (27) |
|  | 0.85\%-1.00\% | 6 | 5 | 8 | 19 |
|  |  | (75) | (71) | (53) | (63) |
|  | Above 1.00\% | 1 | 0 | 2 | 3 |
|  |  | (13) | 0 | (13) | (10) |
|  | Total | 8 | 7 | 15 | 30 |
|  |  | (100) | (100) | (100) | (100) |
| 6 | Yes | 1 | 0 | 8 | 9 |
|  |  | (13) | 0 | (53) | (30) |
|  | No | 5 | 6 | 4 | 15 |
|  |  | (63) | (86) | (27) | (50) |
|  | Don't Know | 2 | 1 | 3 | 6 |
|  |  | (25) | (14) | (20) | (20) |
|  | Total | 8 | 7 | 15 | 30 |
|  |  | (100) | (100) | (100) | (100) |
|  |  |  |  |  |  |


| 7 | No | 1 | 0 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (13) | 0 | (47) | (27) |
|  | Don't Know | 3 | 0 | 3 | 6 |
|  |  | (38) | 0 | (20) | (20) |
|  | Total | 8 | 7 | 15 | 30 |
|  |  | (100) | (100) | (100) | (100) |
| 8 | 5-10 days | 4 | 3 | 5 | 12 |
|  |  | (50) | (43) | (33) | (40) |
|  | 10-20 days | 4 | 4 | 9 | 17 |
|  |  | (50) | (57) | (60) | (57) |
|  | Above 20 days | 0 | 0 | 1 | 1 |
|  |  | 0 | 0 | (7) | (3) |
|  | Total | 8 | 7 | 15 | 30 |
|  |  | (100) | (100) | (100) | (100) |

Note:
a. S.N. refers to Question Number.
b. Stem refers to the options of the answer.
c. The figure in bracket refers to the percentage of respective no. of respondents.

Rank wise No. of Responses of Survey (Q.No. 9)

| S.N. | Indicators | Basis | Rank |  |  |  |  | Total | Weight | Mean Wt. | Overall Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 | 5 |  |  |  |  |
| 1 | Paper Requirment | Total | 7 | 6 | 7 | 9 | 1 | 30 | 81 | 2.70 | 3 |
|  |  | Shareholder | 2 | 1 | 2 | 3 | 0 | 8 | 22 | 2.75 | 3 |
|  |  | Employee | 2 | 1 | 1 | 2 | 1 | 7 | 20 | 2.86 | 3 |
|  |  | Customer | 3 | 4 | 4 | 4 | 0 | 15 | 39 | 2.60 | 3 |
| 2 | Lengthy Period | Total | 3 | 2 | 5 | 13 | 7 | 30 | 109 | 3.63 | 4 |
|  |  | Shareholder | 1 | 0 | 0 | 5 | 2 | 8 | 31 | 3.88 | 4 |
|  |  | Employee | 2 | 1 | 2 | 1 | 1 | 7 | 19 | 2.71 | 2 |
|  |  | Customer | 0 | 1 | 3 | 7 | 4 | 15 | 59 | 3.93 | 4 |
| 3 | Employee <br> Behavior | Total | 0 | 0 | 4 | 3 | 23 | 30 | 139 | 4.63 | 5 |
|  |  | Shareholder | 0 | 0 | 2 | 0 | 6 | 8 | 36 | 4.50 | 5 |
|  |  | Employee | 0 | 0 | 0 | 1 | 6 | 7 | 34 | 4.86 | 4 |
|  |  | Customer | 0 | 0 | 2 | 2 | 11 | 15 | 69 | 4.60 | 5 |
| 4 | Interest Rate | Total | 10 | 13 | 5 | 2 | 0 | 30 | 59 | 1.97 | 1 |
|  |  | Shareholder | 3 | 4 | 1 | 0 | 0 | 8 | 14 | 1.75 | 1 |
|  |  | Employee | 2 | 4 | 1 | 0 | 0 | 7 | 13 | 1.86 | 1 |
|  |  | Customer | 5 | 5 | 3 | 2 | 0 | 15 | 32 | 2.13 | 2 |
| 5 | Collateral <br> Valuation | Total | 10 | 9 | 9 | 2 | 0 | 30 | 63 | 2.10 | 2 |
|  |  | Shareholder | 2 | 3 | 3 | 0 | 0 | 8 | 17 | 2.13 | 2 |
|  |  | Employee | 1 | 1 | 3 | 2 | 0 | 7 | 20 | 2.86 | 3 |
|  |  | Customer | 7 | 5 | 3 | 0 | 0 | 15 | 26 | 1.73 | 1 |


| S.N. | Indicators | Basis | Rank |  |  |  | Total | Weight | Mean Wt. | Overall Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 |  |  |  |  |
| 1 | Careful Evaluation | Total | 14 | 12 | 3 | 1 | 30 | 51 | 1.70 | 1 |
|  |  | Shareholder | 4 | 3 | 1 | 0 | 8 | 13 | 1.63 | 1 |
|  |  | Employee | 5 | 2 | 0 | 0 | 7 | 9 | 1.29 | 1 |
|  |  | Customer | 5 | 7 | 2 | 1 | 15 | 29 | 1.93 | 1 |
| 2 | Appropriate Interest Rate | Total | 5 | 9 | 5 | 11 | 30 | 82 | 2.73 | 3 |
|  |  | Shareholder | 2 | 3 | 0 | 3 | 8 | 20 | 2.50 | 2 |
|  |  | Employee | 0 | 4 | 1 | 2 | 7 | 19 | 2.71 | 3 |
|  |  | Customer | 3 | 2 | 4 | 6 | 15 | 43 | 2.87 | 4 |
| 3 | Awareness on Customer | Total | 4 | 2 | 10 | 14 | 30 | 94 | 3.13 | 4 |
|  |  | Shareholder | 0 | 1 | 3 | 4 | 8 | 27 | 3.38 | 3 |
|  |  | Employee | 0 | 0 | 3 | 4 | 7 | 25 | 3.57 | 4 |
|  |  | Customer | 4 | 1 | 4 | 6 | 15 | 42 | 2.80 | 3 |
| 4 | Timely Collection | Total | 7 | 7 | 12 | 4 | 30 | 73 | 2.43 | 2 |
|  |  | Shareholder | 2 | 1 | 4 | 1 | 8 | 20 | 2.50 | 2 |
|  |  | Employee | 2 | 1 | 3 | 1 | 7 | 17 | 2.43 | 2 |
|  |  | Customer | 3 | 5 | 5 | 2 | 15 | 36 | 2.40 | 2 |

## APPENDIX-III

A) Calculation of Correlation Coefficient between Personal Loan (PL) and Total Deposit (TD)

| Year | Deposit <br> $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{x}=\mathbf{x - \overline { X }}$ | $\mathbf{y =} \mathbf{Y - \overline { \mathbf { Y } }}$ | $\mathbf{x}^{\mathbf{2}}$ | $\mathbf{y}^{\mathbf{2}}$ | $\mathbf{x y}$ |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| $2004 / 05$ | 8765.95 | 1125.68 | -1873.67 | -1175.46 | 3510651.76 | 1381706.21 | 2202428.06 |
| $2005 / 06$ | 10068.23 | 2479.85 | -571.39333 | 178.71 | 326490.341 | 31937.26 | -102113.70 |
| $2006 / 07$ | 13084.69 | 3297.89 | 2445.06667 | 996.75 | 5978351 | 993510.56 | 2437120.20 |
| Total | $\mathbf{3 1 9 1 8 . 8 7}$ | $\mathbf{6 9 0 3 . 4 2}$ |  |  | $\mathbf{9 8 1 5 4 9 3 . 1 1}$ | $\mathbf{2 4 0 7 1 5 4 . 0 4}$ | $\mathbf{4 5 3 7 4 3 4 . 5 5}$ |

i) Calculation of Mean

\[

\]

ii) Calculation of Correlation Coefficient between Personal Loan (PL) and Total Deposit (TD)
iii) Calculation of Standard Deviation (б)

$$
\begin{aligned}
& \text { For TD } \\
& \sigma_{x}=-\sqrt{\frac{\sum(x-\bar{x})^{2}}{N}} \\
&= 1808.82
\end{aligned}
$$


$\begin{aligned} & \text { For PL } \\ & \sigma_{y}=\sqrt{\frac{\sum(y-\bar{y})^{2}}{N}}=-\sqrt{\frac{2407154.0}{3}} \\ &= 895.76\end{aligned}$
iv) Calculation of Coefficient of Variance (C.V.)

For PL

$$
\begin{aligned}
\text { С.V.тD } & =\frac{\sigma \times \times 100}{\bar{X}}=\frac{1808.82}{10639.62} \\
& =17.00
\end{aligned}
$$

C.V.PL $=\frac{\sigma y \times 100}{\bar{Y}}=\frac{895.76}{2301.14}$
$=\quad 38.93$
v) Simple Regression Equation of Personal Loan on Total Deposit of NIC Bank

$$
\begin{array}{ll}
Y-\bar{Y} & =\frac{r \times \text { бy (X-X})}{\sigma x} \\
\text { or, } Y-2301.14 & =\frac{0.9335 \times 895.76(X-10639.62)}{1808.82} \\
\text { or, } Y-2301.14 & =0.4623 X-4918.41 \\
\text { or, } Y & =-2617.27+0.4623 X
\end{array}
$$

vi) Calculation of $t$-value
$\mathrm{t}=\frac{\mathrm{r}}{\sqrt{1-\mathrm{r}^{2}}} \times \sqrt{(\mathrm{n}-2)}=\frac{0.9335 \times \sqrt{3-2}}{\sqrt{1-0.8714}}=\frac{0.9335}{0.3586}=2.60$
0.4623
-4918.41
-2617.27
$\begin{array}{lrrrrr}\text { P.E. } & 1-\mathrm{r} 2 & 0.6745 \mathrm{i}-\mathrm{r} 2 & \mathrm{n} & \text { P.E. } & \text { 6 P.E. } \\ 0.8714 & 0.1286 & 0.0868 & 1.7321 & 0.0501 & 0.3005\end{array}$
B) Calculation of Correlation Coefficient between Borrowings (BO) and Personal Loan (PL)

| Year | $\mathbf{B O}$ | $\mathbf{P L}$ | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{x}=\mathbf{X}-\overline{\mathbf{X}}$ | $\mathbf{y}=\mathbf{Y}-\overline{\mathbf{Y}}$ | $\mathbf{x}^{\mathbf{2}}$ |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{y}^{\mathbf{2}}$ | $\mathbf{x y}$ |  |  |  |  |  |
| $2004 / 05$ | 457.71 | 1125.68 | 76.10 | -1175.46 | 5790.70 | 1381706.21 | -89448.59 |
| $2005 / 06$ | 352.13 | 2479.85 | -29.48 | 178.71 | 869.27 | 31937.26 | -5268.97 |
| $2006 / 07$ | 335.00 | 3297.89 | -46.61 | 996.75 | 2172.80 | 993510.56 | -46461.84 |
| Total | $\mathbf{1 1 4 4 . 8 4}$ | $\mathbf{6 9 0 3 . 4 2}$ |  |  | $\mathbf{8 8 3 2 . 7 7}$ | $\mathbf{2 4 0 7 1 5 4 . 0 4}$ | $\mathbf{- 1 4 1 1 7 9 . 3 9}$ |

i) Calculation of Mean

\[

\]

ii) Calculation of Correlation Coefficient between Borrowings (BO) and Personal Loan (PL)
iii) Calculation of Standard Deviation (б)
$\begin{aligned} & \text { For BO } \\ & \sigma_{x} \quad=\sqrt{\frac{\sum(x-\bar{x})^{2}}{N}} \\ &= 54.26\end{aligned}$
$=-\sqrt{\frac{8832.77247}{3}}$
For PL
$\begin{aligned} \sigma_{y} & =\sqrt{\frac{\sum(y-\bar{y})^{2}}{N}}=-\sqrt{\frac{2407154.0}{3}} \\ = & 895.76\end{aligned}$
iv) Calculation of Coefficient of Variance (C.V.) For BO

For PL

$$
\begin{aligned}
\text { C.V.BO } & =\frac{\sigma \times \times 100}{\bar{x}}=\frac{54.26}{381.61} \\
& =14.22
\end{aligned}
$$

C.V.PL $=\frac{\sigma y \times 100}{\bar{Y}}=\frac{895.76}{2301.14}$

$$
=\quad 38.93
$$

v) Simple Regression Equation of Personal Loan on Borrowings of NIC Bank

$$
\begin{array}{ll}
Y-\bar{Y} & =\frac{r x \text { бy }(X-\bar{X})}{\delta x} \\
\text { or, } Y-2301.14 & =\frac{-0.9682 \times 895.76(X-381.61)}{54.26} \\
\text { or, } Y-2301.14 & =-15.9836 X+6099.55 \\
\text { or, } Y & =8400.69-15.98 X
\end{array}
$$

vi) Calculation of $t$-value
$\mathrm{t}=\frac{\mathrm{r}}{\sqrt{1-\mathrm{r}^{2}}} \times \sqrt{(\mathrm{n}-2)}=\frac{-0.9682 \times \sqrt{3-2}}{\sqrt{1-0.9374}}=\frac{-0.9682}{0.2501}=-3.87$
-15.9836
6099.55
8400.69

```
P.E. 1-r2 0.6745 i-r2 n P.E. 6 P.E.
    0.9374 
```

C) Calculation of 'r' between Personal Loan Interest (PLI) and Total Interest (TI)

| Year | $\mathbf{P L} \mathbf{X} \mathbf{X}$ | Total Int. <br> $\mathbf{Y}$ | $\mathbf{x}=\mathbf{x - \overline { X }}$ | $\mathbf{y =}=\mathbf{Y}-\overline{\mathbf{Y}}$ | $\mathbf{x}^{\mathbf{2}}$ | $\mathbf{y}^{\mathbf{2}}$ | $\mathbf{x y}$ |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| $2004 / 05$ | 99.28 | 485.25 | -120.52 | -161.10 | 14524.2669 | 25952.14 | 19414.83 |
| $2005 / 06$ | 234.08 | 611.24 | 14.2833333 | -35.11 | 204.013611 | 1232.48 | -501.44 |
| $2006 / 07$ | 326.03 | 842.55 | 106.233333 | 196.20 | 11285.5211 | 38495.75 | 20843.33 |
| Total | $\mathbf{6 5 9 . 3 9}$ | $\mathbf{1 9 3 9 . 0 4}$ |  |  | $\mathbf{2 6 0 1 3 . 8 0 1 7}$ | $\mathbf{6 5 6 8 0 . 3 6}$ | $\mathbf{3 9 7 5 6 . 7 3}$ |

i) Calculation of Mean

\[

\]

ii) Calculation of Correlation Coefficient between Personal Loan Interest and Total Interest
iii) Calculation of Standard Deviation (б)
$\begin{aligned} & \text { For PLI } \\ & \sigma_{x}= \\ &= \sqrt{\frac{\sum(x-\bar{x})^{2}}{N}} \\ &=\end{aligned}$
$=-\sqrt{\frac{26013.8017}{3}}$
iv) Calculation of Coefficient of Variance (C.V.) For PLI

For TI

$$
\begin{aligned}
\text { C.V.PLI } & =\frac{\sigma \times \times 100}{\bar{X}}=\frac{93.12}{219.80} \\
& =42.37
\end{aligned}
$$

C.V.ті $=\frac{\text { бу } \times 100}{\bar{Y}}=\frac{147.96}{646.35}$
$=\quad 22.89$
v) Simple Regression Equation of Total Interest on Personal Loan Interest of NIC Bank

$$
\begin{array}{ll}
Y-\bar{Y} & =\frac{r x б y(X-\bar{X})}{\sigma x} \\
\text { or, Y-646.35 } & =\frac{0.9618 \times 147.96(X-219.80)}{93.12} \\
\text { or, Y-646.35 } & =1.5283 X-335.91 \\
\text { or, } Y & =310.43+1.53 X
\end{array}
$$

vi) Calculation of $t$-value
$\mathrm{t}=\frac{\mathrm{r}}{\sqrt{1-\mathrm{r}^{2}}} \times \sqrt{(\mathrm{n}-2)}=\frac{0.9618 \times \sqrt{3-2}}{\sqrt{1-0.9251}}=\frac{0.9618}{0.2737}=3.51$
1.5283
$-335.914$
310.43
$\begin{array}{crrcrr}\text { P.E. } & \text { 1-r2 } & 0.6745 \text { i-r2 } & \text { n } & \text { P.E. } & \text { 6 P.E. } \\ 0.9251 & 0.0749 & 0.0505 & 1.7321 & 0.0292 & 0.1750\end{array}$
D) Calculation of 'r' between Personal Loan (PL) and Net Profit (NP)

| Year | $\begin{gathered} \hline \mathbf{P L} \\ \mathbf{X} \end{gathered}$ | Net Profit Y | $\mathbf{x}=\mathbf{X}-\mathbf{X}$ | $\mathrm{y}=\mathrm{Y}-\mathrm{Y}$ | $\mathrm{x}^{2}$ | $\mathrm{y}^{2}$ | xy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2004/05 | 99.28 | 96.59 | -120.52 | -69.45 | 14524.2669 | 4823.77 | 8370.28 |
| 2005/06 | 234.08 | 158.48 | 14.2833333 | -7.56 | 204.013611 | 57.20 | -108.03 |
| 2006/07 | 326.03 | 243.06 | 106.233333 | 77.02 | 11285.5211 | 5931.57 | 8181.74 |
| Total | 659.39 | 498.13 |  |  | 26013.8017 | 10812.54 | 16443.99 |

i) Calculation of Mean

\[

\]

ii) Calculation of Correlation Coefficient between Personal Loan and Net Profit

$$
r=\frac{\sum x y}{\sqrt{\sum x^{2} \sqrt{\sum y^{2}}}=\frac{16443.9918}{16771.26}=0.9805}
$$

iii) Calculation of Standard Deviation (б)
$\begin{aligned} & \text { For PL } \\ & \sigma_{x}= \\ &= \sqrt{\frac{\sum(x-\bar{x})^{2}}{N}} \\ &= 93.12\end{aligned}$
$=-\sqrt{\frac{26013.8017}{3}}$
$\begin{aligned} & \text { For NP } \\ & \sigma_{y}=\sqrt{\frac{\sum(y-\bar{y})^{2}}{N}}=-\sqrt{\frac{10812.5}{3}} \\ &= 60.03\end{aligned}$
iv) Calculation of Coefficient of Variance (C.V.) For PL

For NP

$$
\begin{aligned}
\text { C.V.PL } & =\frac{6 \times \times 100}{\bar{X}}=\frac{93.12}{219.80} \\
& =42.37
\end{aligned}
$$

C.V.NP $=\frac{\text { бy } \times 100}{\bar{Y}}=\frac{60.03}{166.04}$

$$
=\quad 36.16
$$

v) Simple Regression Equation of Net Profit on Personal Loan of NPC Bank

$$
\begin{array}{ll}
Y-\bar{Y} & =\frac{r \times б y(X-\bar{X})}{\sigma x} \\
\text { or, Y-646.35 } & =\frac{0.9805 \times 60.03(X-219.80)}{93.12} \\
\text { or, Y-646.35 } & =0.6321 X-138.94 \\
\text { or, } Y & =27.10+0.6321 X
\end{array}
$$

vi) Calculation of $t$-value
$\mathrm{t}=\frac{\mathrm{r}}{\sqrt{1-\mathrm{r}^{2}}} \times \sqrt{(\mathrm{n}-2)}=\frac{0.9805 \times \sqrt{3-2}}{\sqrt{1-0.9614}}=\frac{0.9805}{0.1966}=4.99$
0.6321
$-138.939$
27.10
P.E. 1-r2 0.6745 i-r2 $n \quad$ P.E. 6 P.E. $\begin{array}{llllll}0.9614 & 0.0386 & 0.0261 & 1.7321 & 0.0150 & 0.0903\end{array}$
B) Calculation of Trend Value of NIC Sajilor Karza (SK) on Year

Let Year 1 denotes fiscal year 2005/06, 2 denotes 2006/07 and 3 denotes 2007/08.

| Fiscal <br> Year | Year <br> $\mathbf{X}$ | SK <br> $\mathbf{Y}$ | $\mathbf{x}=\mathbf{X -} \overline{\mathbf{X}}$ | $\mathbf{y}=\mathbf{Y - \overline { \mathbf { Y } }}$ | $\mathbf{x}^{\mathbf{2}}$ | $\mathbf{y}^{\mathbf{2}}$ | $\mathbf{x y}$ |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| $2006 / 07$ | 1 | 918.13 | -0.5 | -153 | 0.25 | 23458 | 77 |
| $2007 / 08$ | 2 | 1224.45 | 0.5 | 153 | 0.25 | 23458 | 77 |
| Total | $\mathbf{3}$ | $\mathbf{2 1 4 2 . 5 8}$ |  |  | $\mathbf{0 . 5}$ | $\mathbf{4 6 9 1 6}$ | $\mathbf{1 5 3 . 1 6}$ |

i) Calculation of Mean

$$
\quad \bar{Y}=\Sigma \mathrm{Y} / 2=1071.29
$$

ii) Calculation of Correlation Coefficient between Year and SK
iii) Calculation of Standard Deviation (б)

For Year
$\begin{aligned} & \sigma_{x}= \\ &=\sqrt{\frac{\sum(x-\bar{x})^{2}}{N}}=-\sqrt{\frac{0.5}{2}} \\ &=0.50\end{aligned}$

For SK

$$
\begin{aligned}
\sigma_{y} & =-\sqrt{\frac{\sum(y-\bar{y})^{2}}{N}}=-\sqrt{\frac{46916}{2}} \\
& =153.16
\end{aligned}
$$

iv) Now the regression line of SK $Y$ on Time $X$ is given by;

| $Y-\bar{Y}$ |  | $=$ | $r x$ бу ( $\mathrm{X}-\overline{\mathrm{X}}$ ) |  | (X-1.50) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 6 |  |  |
| or, Y- | 1071.29 | = | 1.00 | 153.16 |  |
|  |  |  | X | 0.50 | X |
| or, Y- | 1071.29 | = | 306.32 | -459.48 |  |
| or, Y |  | $=$ | 611.81 | - 306.3 |  |

v) Calculation of Trend Value of Total SK

| Fiscal Year | Year (X) | a | b | Trend Value |
| :--- | :---: | :---: | :---: | ---: |
| $2006 / 07$ | 1 | 611.81 | 306.32 | 918.13 |
| $2007 / 08$ | 2 | 611.81 | 306.32 | 1224.45 |
| $2008 / 09$ | 3 | 611.81 | 306.32 | 1530.77 |
| $2009 / 10$ | 4 | 611.81 | 306.32 | 1837.09 |

306.32
-459.48
611.81
C) Calculation of Trend Value of Total Personal Loan (PL) on Year

Let Year 1 denotes fiscal year 2005/06, 2 denotes 2006/07 and 3 denotes 2007/08.

| Fiscal <br> Year | Year <br> $\mathbf{X}$ | $\mathbf{P L}$ <br> $\mathbf{Y}$ | $\mathbf{x = \mathbf { X } - \overline { \mathbf { X } }}$ | $\mathbf{y =} \mathbf{Y - \overline { \mathbf { Y } }}$ | $\mathbf{x}^{\mathbf{2}}$ | $\mathbf{\mathbf { y } ^ { \mathbf { 2 } }}$ | $\mathbf{x y}$ |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| $2005 / 06$ | 1 | 1125.68 | -1 | -1175 | 1 | 1381706 | 1175 |
| $2006 / 07$ | 2 | 2479.85 | 0 | 179 | 0 | 31937 | 0 |
| $2007 / 08$ | 3 | 3297.89 | 1 | 997 | 1 | 993511 | 997 |
| Total | $\mathbf{6}$ | $\mathbf{6 9 0 3 . 4 2}$ |  |  | $\mathbf{2}$ | $\mathbf{2 4 0 7 1 5 4}$ | $\mathbf{2 1 7 2 . 2 1}$ |

i) Calculation of Mean

$$
\begin{gathered}
\text { For Year } \\
\text { Mean } \\
\bar{X} \\
= \\
\end{gathered}
$$

ii) Calculation of Correlation Coefficient between Year and PL

$$
r=\frac{\sum x y}{\sqrt{\sum x^{2} \sqrt{ } \sum y^{2}}}=\frac{2172.21}{2194}=0.99
$$

iii) Calculation of Standard Deviation (б)

For Year
$\begin{aligned} & \sigma_{x}= \sqrt{\frac{\sum(x-x)^{2}}{N}}=-\sqrt{\frac{2}{3}} \\ &=0.82\end{aligned}$

For PL
$\begin{aligned} \sigma_{y} & =-\sqrt{\frac{\sum(y-\bar{y})^{2}}{N}}=-\sqrt{\frac{2407154}{3}} \\ & =\frac{895.76}{}\end{aligned}$
iv) Now the regression line of PL Y on Time X is given by;

$$
\begin{aligned}
& \begin{aligned}
Y-\bar{Y} & =\quad \frac{r x \quad \text { бy }(X-\bar{X})}{\sigma x}
\end{aligned} \\
& \text { or, Y- } 2301.14 \quad=\quad \begin{array}{lllll}
0.9900 & 895.76 & (\mathrm{X}-1.20) \\
\times 10.82 & \times
\end{array} \\
& \text { or, Y- } 2301.14 \quad=\quad 1086.11 \mathrm{X}-2172.21 \\
& \text { or, } Y \quad=\quad 128.93 \pm 1086.11 \mathrm{X}
\end{aligned}
$$

v) Calculation of Trend Value of Total PL

| Fiscal Year | Year (X) | $a$ | $b$ | Trend Value |
| :--- | :---: | :---: | :---: | ---: |
| $2005 / 06$ | 1 | 128.93 | 1086.11 | 1215.04 |
| $2006 / 07$ | 2 | 128.93 | 1086.11 | 2301.14 |
| $2007 / 08$ | 3 | 128.93 | 1086.11 | 3387.25 |
| $2008 / 09$ | 4 | 128.93 | 1086.11 | 4473.35 |
| $2009 / 10$ | 5 | 128.93 | 1086.11 | 5559.46 |

1086.11
-2172.21
128.93
E) Calculation of Trend Value of NIC Sajilor Karza Interest (SKII) on Year

Let Year 1 denotes fiscal year 2005/06, 2 denotes 2006/07 and 3 denotes 2007/08.

| Fiscal <br> Year | Year <br> $\mathbf{X}$ | SKII <br> $\mathbf{Y}$ | $\mathbf{x = X - \overline { X }}$ | $\mathbf{y = \mathbf { Y } - \overline { \mathbf { Y } }}$ | $\mathbf{x}^{\mathbf{2}}$ | $\mathbf{\mathbf { y } ^ { \mathbf { 2 } }}$ | $\mathbf{x y}$ |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| $2006 / 07$ | 1 | 93.37 | -0.5 | -16 | 0.25 | 272 | 8 |
| $2007 / 08$ | 2 | 126.36 | 0.5 | 16 | 0.25 | 272 | $\mathbf{8}$ |
| Total | $\mathbf{3}$ | $\mathbf{2 1 9 . 7 3}$ |  |  | $\mathbf{0 . 5}$ | $\mathbf{5 4 4}$ | $\mathbf{1 6 . 4 9 5}$ |

i) Calculation of Mean

$$
\begin{gathered}
\text { For Year } \\
\text { Mean } \\
\bar{X}= \\
= \\
X / 2
\end{gathered} \quad 1.50 \quad \bar{Y}=\sum \mathrm{Y} / 2=109.87
$$

ii) Calculation of Correlation Coefficient between Year and SKI
iii) Calculation of Standard Deviation (б)

For Year
$\begin{aligned} & \sigma_{x}= \\ &=\sqrt{\frac{\sum(x-\bar{x})^{2}}{N}}=-\sqrt{\frac{0.5}{2}} \\ &=0.50\end{aligned}$

For SKI

$$
\sigma_{y}=-\sqrt{\frac{\sum(y-\bar{y})^{2}}{N}}=-\sqrt{\frac{544}{2}}
$$

iv) Now the regression line of Sajilo Karza Interest $Y$ on Time $X$ is given by;

| $Y-\bar{Y}$ |  | $=$ | $r \times$ бу ( $\mathrm{X}-\overline{\mathrm{X}}$ ) |  | (X-1.50) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | б |  |  |
| or, Y- | 109.87 | $=$ | 1.00 | 16.50 |  |
|  |  |  |  | 0.50 | X |
| or, Y- | 109.87 | $=$ | 32.99 | -49.49 |  |
| or, Y |  | = | 60.38 | 32. |  |

v) Calculation of Trend Value of Total SKI

| Fiscal Year | Year (X) | a | b | Trend Value |
| :--- | :---: | :---: | :---: | ---: |
| $2006 / 07$ | 1 | 60.38 | 32.99 | 93.37 |
| $2007 / 08$ | 2 | 60.38 | 32.99 | 126.36 |
| $2008 / 09$ | 3 | 60.38 | 32.99 | 159.35 |
| $2009 / 10$ | 4 | 60.38 | 32.99 | 192.34 |

$-49.49$
60.38
F) Calculation of Trend Value of Total Personal Loan Interest (PLI) on Year

Let Year 1 denotes fiscal year 2005/06, 2 denotes 2006/07 and 3 denotes 2007/08.

| Fiscal <br> Year | Year <br> $\mathbf{X}$ | $\mathbf{P L I}$ <br> $\mathbf{Y}$ | $\mathbf{x}=\mathbf{X}-\overline{\mathbf{X}}$ | $\mathbf{y =}=\mathbf{Y - \overline { \mathbf { Y } }}$ | $\mathbf{x}^{\mathbf{2}}$ | $\mathbf{y}^{\mathbf{2}}$ | $\mathbf{x y}$ |
| :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: |
| $2005 / 06$ | 1 | 99.28 | -1 | -121 | 1 | 14524 | 121 |
| $2006 / 07$ | 2 | 234.08 | 0 | 14 | 0 | 204 | 0 |
| $2007 / 08$ | 3 | 326.03 | 1 | 106 | 1 | 11286 | 106 |
| Total | $\mathbf{6}$ | 659.39 |  |  | $\mathbf{2}$ | $\mathbf{2 6 0 1 4}$ | $\mathbf{2 2 6 . 7 5}$ |

i) Calculation of Mean

$$
\begin{array}{ll}
\text { For Year } \\
\text { Mean } & \overline{\mathrm{X}}=\Sigma \mathrm{X} / 3=2.00 \quad \overline{\mathrm{Y}}=\Sigma \mathrm{Y} / 5=219.80
\end{array}
$$

ii) Calculation of Correlation Coefficient between Year and PLI
iii) Calculation of Standard Deviation (б)

For Year
$\begin{aligned} & \sigma_{x}= \\ &=\sqrt{\frac{\sum(x-\bar{x})^{2}}{N}}=-\sqrt{\frac{2}{3}} \\ &=0.82\end{aligned}$

For PLI

iv) Now the regression line of PLI Y on Time $X$ is given by;

$$
\begin{aligned}
& \begin{array}{ll}
Y-\bar{Y} & =\quad \frac{r x \text { бy }(X-\bar{X})}{\sigma x}
\end{array} \\
& \text { or, Y- } 219.80 \quad \begin{array}{lllll} 
& 0.9941 & & 93.12 & (\mathrm{X}-2.00) \\
\times 10.82 & \times
\end{array} \\
& \text { or, Y- } 219.80 \quad=\quad 113.38 \mathrm{X}-226.75 \\
& \text { or, } Y \quad=\quad-6.95 \pm 113.38 \mathrm{X}
\end{aligned}
$$

v) Calculation of Trend Value of Total PLI

| Fiscal Year | Year (X) | a | b | Trend Value |
| :--- | :---: | :---: | :---: | ---: |
| $2005 / 06$ | 1 | -6.95 | 113.38 | 106.42 |
| $2006 / 07$ | 2 | -6.95 | 113.38 | 219.80 |
| $2007 / 08$ | 3 | -6.95 | 113.38 | 333.17 |
| $2008 / 09$ | 4 | -6.95 | 113.38 | 446.55 |
| $2009 / 10$ | 5 | -6.95 | 113.38 | 559.92 |

113.38
$-226.75$
-6.95

