

# **CHAPTER-I**

## **INTRODUCTION**

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

Investment policy is the process of proper utilization of the assets or funds to maximize its value of it is the process to obtain high or favorable return with low risk with the protection from inflation as well as other unfavorable situations. Commercial banks are major financial institutional, which occupy quite important place in the framework in every economy because they provide capital for the development for the industry. Commercial banks formulate sound investment policies to make it effective, which eventually contribute to the economic growth of the country. The bound policies help commercial banks maximizing the quality and quantity of investment and hereby achieve the own objective if profit maximization and social welfare. Formulation of sound investment policies and co-ordinate and planned efforts pushed forward the forces of economic growth.

The need of financial resources in developing country like Nepal is essential for the economic development of country. The entire sector from industrial and economical to agriculture and infrastructure are in need of finding. Although the growth of industrial loans has not been encouraging in the recent years, there is sizable growth in commercial and other short term credits. Commercial banks are focusing loans on consumer loans like housing, vehicle, education loan etc. it is encouraging to explore to new sector for loan management but it should also be considered that industrial loan should be given prime importance as the economy largely depends on this sector.

Investment policies are not systematic and no clear cut vision of policy is available on lending aspect. In Nepal it has been found that on approval and lending decisions are made flexible to favor the personnel networks. A new

customer finds that loan providing process being very complicated and sometimes the documents submitted for loan sanctioning being fraudulent and for formality purpose only.

Loan management is the essence of the commercial banking consequently the formulation and implementation of lending policies are among the most important responsibilities of the directors and management. Well conceived lending policies and careful lending practices are essential if a bank is to perform its credit. Loan management effects on the company's profitability and liquidity so it is one of the crucial decisions for the commercial banks. The banks take almost care in analyzing the creditworthiness of the borrowing customer to ensure that the interest and the principal amount on loans are timely recovered without much trouble and process for the recovery. A sound lending policy is essential for the good performances of the bank are further to attain economic objectives directed towards acceleration of the development. Lending policy should be carefully analyzed and the banks should be carefully while performing its credit creation effectively and to minimize the risk factor.

Lending is one of the most important functions of the commercial bank and the composition of the loans and advances directly affects the performance and profitability of the bank. There is intense competition in banking business with limited market and less investment opportunities available.

Due to loan management is not satisfactory and its being national issue and to contribute towards the topic through the study among the lot of topics, the loan management topic is selected. Thus study aims to focus on the comparative loan management of Nabil Bank Ltd and Standard Chartered Bank Ltd.

Loan management strongly recommends analyzing and managing the credit risks. Credit risk is defined as the possibility that the borrower will fail to meet its obligations in accordance with the agreed terms and conditions credit risk is not restricted to lending activities only but includes off balance sheet and inter-

bank explores. The goal of the credit risk management is to maximize a bank's risk adjusted rate of return by maintaining the credit risk exposure within acceptable parameters. For most banks, loan are the largest and most obvious sources of credit risk, however other sources of credit risk exist through out the activities of a bank, including in the banking book, and in the trading book, and both increasingly facing credit risk in various financial other than land, including acceptance, inter bank transactions and guarantees and the settlement of the transaction.

The loan management policy of a firm provides the framework to determine whether or not to extend credit and how much credit to extend. The loan management policy decision of a bank has two broad dimension; credit standard and credit analysis. A firm has to establish and use standards in making credit decisions, develop appropriate sources of credit information and methods of credit analysis.

The name and the year of the establishment of the commercial banks in have been listed below.

#### **List of Commercial Banks in Nepal (Mid July 2012)**

<b><u>S.N.</u></b>	<b><u>Name</u></b>	<b><u>Operation Date (A.D.)</u></b>
1	Nepal Bank Limited (NBL)	1937
2	Rastriya Banijya Bank (RBB)	1966
3	NABIL Bank Limited (NABIL)	1984
4	Nepal Investment Bank Limited (NIBL)	1986
5	Standard Chartered Bank Nepal Ltd. (SCBNL)	1987
6	Himalayan Bank Limited (HBL)	1993
7	Nepal SBI Bank Limited (NSBI)	1993
8	Nepal Bangladesh Bank Limited (NBBL)	1993
9	Everest Bank Limited (EBL)	1994
10	Bank of Kathmandu Limited (BOK)	1995
11	Nepal Credit and Commerce Bank Ltd. (NCCBL)	1996

12	Lumbini Bank Limited (LBL)	1998
13	Nepal Industrial & Commercial Bank Ltd. (NIC)	1998
14	Machhapuchhre Bank Limited (MBL)	2000
15	Kumari Bank Limited (KBL)	2001
16	Laxmi Bank Limited (LXBL)	2002
17	Siddhartha Bank Limited (SBL)	2002
18	Agriculture Development Bank Limited	2006
19	Global Bank Limited	2007
20	Citizens Bank International Limited	2007
21	Prime Bank Limited	2007
22	Sunrise Bank Limited	2007
23	Bank of Asia Nepal Limited (BOA)	2007
24	Grand Bank Nepal Limited (GCBL)	2008
25	NMB Bank Limited (NMB)	2008
26	Kist Bank Limited	2009
27	Janta Bank Limited	2010
28	Mega Commercial Bank Limited	2010
29	Commerze and Trust Bank Nepal Limited	2011
30	Century Bank Limited	2011
31	Civil Bank Limited	2011
32	Sanima Bank Limited	2012

Source: Nepal Rastra Bank Limited, 2012

Bank is defined as a financial intermediary that canalizes funds between deposits and entrepreneurs. It is a financial institution that accepts deposits and channels the money into lending activities. In a general sense, banks act as a financial intermediary. Intermediation is between deposits and entrepreneurs. A bank is an institution that deals with money by accepting deposits from the general public, corporate bodies and private organizations and deploys for profitable purpose in

the form of loans and advances. Bank by accepting deposits takes up the role of custodian of public money. The transactions in the financial market heavily depend upon the banking system of the country. Without bank, it will be quite impossible for the industrialist and the entrepreneurs to go directly to general public for getting their saving or investments. So, the simplest definition is that, bank takes the savings of the public by providing them with certain rate of interest and loans it to needy customers charging them higher rate of interest and thus, earns some profit by doing these transactions. This is the broadest form of the banking, but at this age of time, their functions have increased manifold. Remitting of money, letter of credit, guarantee, issue of money, controlling monetary activities of country, etc. are also major functions of bank. For better understanding, an in depth study of bank has been conducted. The term bank is mainly related to financial transactions to operate, run and facilitate various monetary activities.

According to Concise Oxford Dictionary, the term bank has been defined as “A bank is an establishment of the custody of money which it pays out on customers’ order.” In the word of Kent, “A bank is an organization whose principal operations are converted with the accumulation of the temporarily idle money of the general public for the purpose of advancing to other for expenditure.” A banker and a bank is a person or company carrying on the business of receiving moneys, and collecting drafts, for customers subject to the obligation of honoring cheques drawn upon them from time to time by the customers to the extent of the available on their current accounts.

Therefore bank can easily be defined as the custodians of deposits. Bank is an institution which deals with money by accepting various types of deposits, disbursing loans and rendering other financial services “A bank is a business organization that receives and hold deposits of funds from other, grants loans or extends credits and transfers funds by written orders of depositors”.

“The more developed financial system of the world characteristically falls into three parts: central bank, commercial banks and other financial institutions. The two banks selected for the study are joint venture commercial banks.

### **1.1.1. A Brief Profile of the Banks**

#### **Nabil Bank Ltd.**

Nabil bank, 1st choice in Nepal. Nabil bank, the 1st foreign joint venture Bank set up in the nation with an objective to introduce modern banking services was registered under the Company Act, 1964, commenced its operations on 12th of July 1984 with Rs 28 million capitals and around 50 staff. Dubai Bank limited, Dubai was the foreign joint venture partner who extended Nabil a technical service agreement in the initial period the Bank, through its quality customer service and innovative products. Has today attained a distinguished recognition in the banking industry of Nepal.

The Bank provides a complete range of consumer retail, SME and corporate banking service through its offices spread across the country. Nabil is the sole banker to a multitude of large corporate, international aid agencies, NGO's and embassies, it is the largest private bank in the country in terms of branch and ATM network. On the technological front, the Bank has earned a reputation in providing an array of card products and any branch banking service. Nabil Bank is committed to surge ahead to continue to be the bank.

#### **Standard Chartered Bank Ltd.**

Standard Chartered Bank Limited was registered under the Company Act, 1964 in 1987. Standard Chartered Bank Limited has been in operation in Nepal since 1987. The Bank is an integral part of Standard Chartered group having an ownership of 75% and the balance owned by the Nepalese public. The bank is the largest international bank currently operating in Nepal.

Standard Chartered has history of over 150 years in banking and operates in many of world's fastest-growing markets in over 70 countries. Standard Chartered employs almost 75000 people, representing over 115 nationalities, worldwide. This diversity lies at the heart of the bank's values and supports the bank's growth as the world increasingly becomes one market with 16 points of representation, 17 ATM and more than 350 local staff, Standard Chartered Bank Nepal Limited is in a position to serve its customers through an extensive domestic network .in addition the global network of standard chartered group gives the bank a unique opportunity to provide truly international banking service in Nepal. Standard chartered Bank Nepal limited offers a full range of banking products and service in wholesale and consumer banking, the bank has been the pioneer in introducing 'customer focused' product and services and aspires to continue to be a leader in introducing new products in delivering superior services.

Corporate social responsibility is an integral part of standard chartered ambition to become the world best international bank and is the mainstay of the bank's values. The main objectives of this bank are to carryout modern banking business in the country under the Commercial Bank Act, 1974.

## **1.2 Focus of the Study**

Banks have today gained paramount trust of the public. Banking industry offers a wide range of services addressing the needs of public in different walks of life. At present, a large number of banks are operating in Nepal. Naturally, they are rendering a wide range of services. They are trying to keep up pace with the changes taking place in the world. But quantity does not count for quality. The financial institution of all classes 'A' to 'D' are increased every year. In a small economy like Nepal, it is a question of great concern as to how so many banks are surviving and reaping profit. The concern is not only about these days but also the sustainability of the operating banks in future days also. Therefore the report will try to concentrate on two major private sector banks of Nepal,

i.e. Nabil Bank Limited and Standard Chartered Bank Limited. It will focus on the comparative loan management of these two banks regarding profitability, liquidity, leverage positions, cost minimization, etc.

### **1.3 Statement of the Problem**

Investment policy is the essence of the commercial banking; consequently the formulating and second lending policies are among the most important responsibilities of directors and management. Well conceived lending policies and careful lending practices are essential if a bank is to perform its credit. Loan management effects on the company's profitability and liquidity so it is one of the crucial decisions for the commercial banks.

The need of financial resources in a developing country like Nepal is essential for the economic development of country. The entire sector from industrial and economical to agriculture and infrastructure are in need of finding. Although the growth of industrial loans has not been encouraging in the recent years, there is sizable growth in commercial and other short term credits. Commercial banks are focusing loans on consumer loans like housing, vehicle, education loan etc. it is encouraging to explore to new sector for loan management but it should also be considered that industrial loan should be given prime importance as the economy largely depends on this sector.

Lending policies are not systematic and no clear cut vision of policy is available on lending aspect. In Nepal it has been found that on approval and lending decisions are made flexible to favors to personal networks also. A new customer finds that loan providing process being very complicated and sometimes the documents submitted the loan sanctioning being fraudulent and for formally purpose only. In this perspective the study deals with the following issues:

- ) How effectively is the investment policy of selected sample bank is being followed?



- ) Whether the trend of the deposit and loans of the commercial banks are satisfactory?
- ) How the sample banks measure the liquidity position and impact of deposit on liquidity?
- ) What is the portion of lending between consumer and industrial loan?
- ) How the banks measure the lending between consumer and industrial loan?
- ) How the banks measure the lending performance in quality, efficiency and contribution of profitability

#### **1.4 Objective of the Study**

The main objective of the study is to analyze the investment policy adopted by the sample banks. However the specific objectives are as follows:

- ) To analyze the effectiveness of investment policy of the selected sample banks.
- ) To measure the performance in quality, efficiency and contribution of profitability.
- ) To examine the trend of the deposit and loans of commercial bank.
- ) To study the liquidity position, the impact of deposit in liquidity and its effect on lending performance.
- ) To provide suggestions and recommendation for the proper loan system.

#### **1.5 Significance of the Study**

There are few researches done in investment policy of commercial banks. Loan management is one of most important aspect of the bank. The study of analysis of loan management of the chosen selected banks would be beneficial to the shareholders, banking professionals, investors, teachers and students of banking management.

This study is focuses in the qualitative measurement of the selected banks. Similarly, the finding of the study will equally important to other who is interested in knowing about this particular bank. Last but not the least, it will provide relevant and pertinent literature for the future research on the area of loan management of the banks.

### **1.6 Limitation of the Study**

Since, the study is focusing to fulfill the partial fulfillment for the requirement course of MBS of T.U. It has some limitation. We have limited resources and may be difficult to explore researcher to find out new aspect. Reliability of statistical tools used and lack of research experience are the major limitation and some other limitations can be enlisted as follows:

- ) This research is limited to the lending aspect mainly with the loan and advanced only.
- ) The secondary data is used to analyze and interpretation for result. So the accuracy of the finding depends on the reliability of available information.
- ) In some extent, the data published on the website of related banks has been taken.
- ) Due to time and resource factor only two commercial banks are taken for the study.
- ) The study covers the time period of 2007/2008 to 2011/2012.
- ) There could be many factors affecting loan management decision. However only those factors related with lending policy has been considered in this study.

### **1.7 Organization of the Study**

This study has been organized into five chapters.

## **Chapter-I: Introduction**

The first chapter deals with the subject matter consisting introduction, background of the study, statement of the problem, objective of the study, significance of the study, limitation of the study and organization of the study.

## **Chapter II: Review of Literature**

The second chapter is mainly focused with literature review that includes a discussion on the conceptual framework on loan management and review of major – studies relating with lending decision.

## **Chapter III: Research and Methodology**

The third chapter describes the research methodology used to conduct the present research. It deals with research design, sources of data, data processing procedures, population and sample; period of the study, method of analysis and financial and statistical tools.

## **Chapter IV: Data Presentation and Analysis**

The fourth chapter is concerned with analytical framework. It includes the analysis of financial indicators. Analysis of mean, correlation coefficient, regression analysis, trend analysis and financial analyses, the major findings are included are the end of the chapter.

## **Chapter V: Summary, Conclusion and Recommendations**

The fifth chapter includes the summary, conclusion and recommendations of the study which deals about the main theme of study and comparison of lending policy of the banks with recommended for improvement of loan management of the selected banks. The bibliography and annexes are also incorporated at the end of the study.

## **CHAPTER-II**

### **REVIEW OF LITERATURE**

Review of literature mainly covers two parts. The first section of this chapter includes theoretical framework whereas second part is confined to review of the previous studies carried out by the various researchers. In this chapter, the overall concept and view of “financial performance” will be streamlined through the review of relevant literature related to this study. This chapter includes the conceptual framework, review of empirical studies, review of Nepalese study and research gap.

#### **2.1 Conceptual Framework**

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

Banks plays vital role in the economic development of a country. In fact, in the modern industrialized and service oriented era. The availability of the banks with competitive services is the measure of economic development of a country. While many people believe that banks play only a narrow role in the economy taking deposit and making loans the modern banking has had to adopt new roles in order to responsive to public needs. The principal role that a bank today play are:

#### **The intermediate role:**

Transferring the saving received primarily from the households into credit (loans) for business firms and other in order to make investments in the new building, equipment and other capital goods.

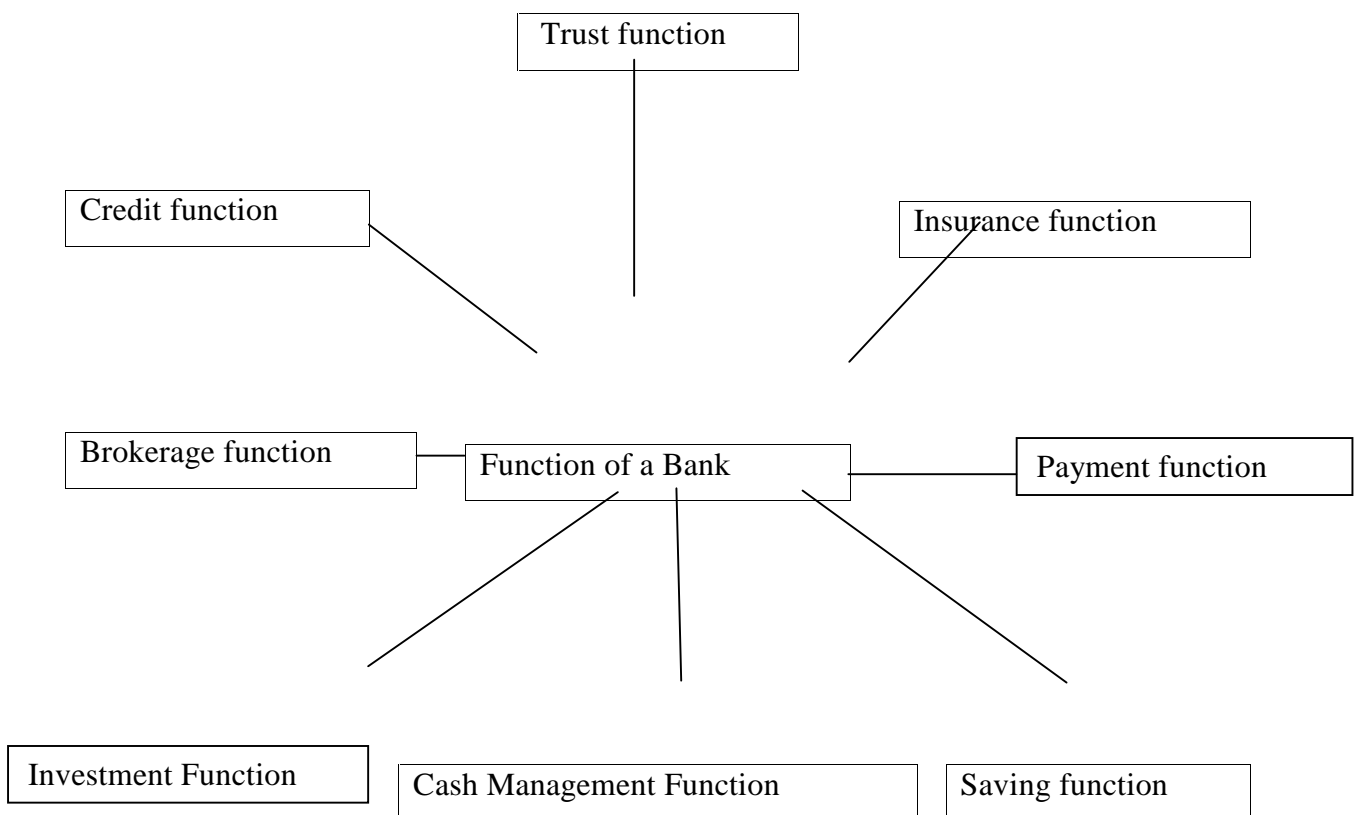
## The Payment Role

Carrying out payment for goods and services on behalf of their customer (such as by issuing and clearing cheque and dispersing currency and coins.)

## The Policy Role

Servicing as a conduct for government policy in attempting to regulate the growth of the economy and pursue social goal. Some of the vital functions performed by a full banking service institution today are summarized in the figure below.

**Figure 2.1**  
**Functions of a Bank**



### **The Guarantor Role:**

Starting behind the customers to pay off the customers debt when those customers are unable to pay (such as by issuing letters of credit). Some of guarantees are big bond, performance bond etc.

### **The Agency Role**

Acting on behalf of the customers to manage and protect or issue and redeem their securities. During the last two and half decades the Nepalese Financial System has grown significantly. At the beginning of 1980s, there were only two commercial banks and two development banks in the country. After the adoption of economic liberalization policy, particularly the financial sector liberalization that paved the way for establishment of new banks and non-bank financial institutions into the country. Consequently, by the end of mid-January 2013, altogether 285 banks and non- bank financial institutions licensed by NRB are in operation. Out of them, 32 are “A” class commercial banks, 59 “B” class development banks, 79 “C” class finance companies, 12 “D” class micro-credit development banks, 16 saving and credit co-operatives and 45 NGOs.

- ) The number of commercial bank branches operating in the country increased to 635 in mid Jan 2013 from 580 in mid July 2010. Among the total bank branches, 48.95 percent bank branches are concentrated in the central region alone. By the end of mid Jan 2013, total 320 branches are being operating in this region. However, in the western, eastern, mid-western and far- western region are 19.45 percent (125), 19.29 percent (124), 7.78 percent (53) and 4.54 percent (31) respectively.
- ) Entry of new banks in financial system along with increased in the business, the total assets i.e sources of fund of commercial banks went up by higher rate of 20.40 percent compared to 15.51 percent in the previous year. By the end of this fiscal year, the total assets of commercial banking sector reached to Rs. 682372.9 million from Rs 566736.0 million in the last year.

- ) The share of loans and advances to total assets decreased to 49.99 percent in mid Jan 2013 from 53.45 percent in mid July 2008. Similarly, investment and liquid funds registered the 18.46 percent and 11.10 percent respectively. In the preceding year, the respective shares were 19.23 percent and 11.80 percent.
- ) The composition of liabilities of commercial banks shows that, the deposit has occupied the dominant share of 70.32 percent followed by borrowing 3.16 percent and capital fund 2.42 percent in the mid Jan 2013. The respective shares of deposit, borrowing and capital fund in the previous year were 75.18 percent, 2.54 percent and 1.76 percent. Among the component of assets, loans and advances occupied the highest share of 49.99 percent followed by total investment 18.46 percent and liquid fund 11.10 percent in the same year.
- ) In the mid Jan 2013, the loans and advances increased at lower rate of 12.62 percent compare to 32.30 percent in mid July 2008. By the end of mid Jan 2013, the total outstanding amount of loans and advances of commercial banks reached to Rs. 341127.9 million. It was Rs. 302913.4 million in mid July 2013.
- ) The total investment of commercial banks in mid Jan 2013 increased by 15.65 percent and reached to Rs. 126002.1 million from Rs. 108954.8 million in mid July 2012. Similarly liquid fund increased by 13.25 percent and amounted to Rs. 75735.9 million.
- ) In the mid Jan 2013, total deposit of commercial bank increased by 12.62 percent compare to 26.25 percent growth in the mid July 2012. As of mid Jan 2013, it reached to Rs. 479864.2 million from Rs 426080.3 in the mid July 2012. Among the component of deposit, current deposit increased with rate of 8.71 percent compare to 24.56 percent in last year. Similarly, saving deposit and fixed deposit increased by 14.15 percent and 11.33 percent respectively.
- ) The saving deposit comprises the major share in total deposit followed by fixed deposit and current deposit. As of mid Jan 2009, the proportion of

saving, fixed, and current deposits are 50.30 percent, 24.31 percent, and 12.71 percent respectively. In the last year the respective share of saving, fixed and current deposit were 49.63 percent, 24.59 percent and 13.16 percent.

- J In the mid Jan 2013, the borrowing increased by higher rate of 49.58 percent compared to 13.00 percent in the previous year, By the end of mid Jan 2013, it reached to Rs. 21551.9 million from Rs. 14408.2 million in the mid July 2012.
- J The entry of new banks as well as rise in the capital base by some of old banks attributed to change its Capital Fund. It is increased remarkable by 65.73 percent compared to previous year and reached to Rs. 16508.3 million in mid Jan 2013. It was Rs. 9960.7 million in mid July 2012.
- J Out of the Rs. 344077.8 million outstanding credits in mid Jan 2013, the largest proportion of the loans and advances is occupied by manufacturing sector. The share of this sector is 23.43 percent followed by wholesale & retailers' 17.32 percent, others 16.35 percent, construction 10.84 percent and finance, insurance & fixed assets by 8.88 percent. Similarly, service industries comprise 6.66 percent, transportation, communication & public services by 5.19 percent and agriculture by 4.15 percent in the same year.
- J The outstanding of deprived sector credit of commercial banks in the mid Jan 2013 increased by higher rate of 99.62 percent compared to 12.41 percent in the mid July 2012. By the end of mid Jan 2013, it reached to Rs. 15353.60.million from Rs. 7691.40 million in mid July 2012. Sector credit to total outstanding loans and advances stood at 4.50 percent in the current fiscal period. Last year it was 2.82 percent.
- J In mid Jan 2013, the credit to deposit ratio of the commercial banks remained same as of mid – July 2012. It was 71.09 percent as in mid July 2012. The ratio was 67.84 percent in mid July 2011.
- J The non-performing loan of commercial banks declined significantly to 5.38 percent in mid Jan 2013 from 6.08 percent in the July 2012. The total



amount of NPA remained to Rs. 18548.20 million from Rs. 18648.5 million in the July 2012.

### **Loans and advance**

The total loans and advances dispersed by the banking industry on Mid July 2012 rose by 36.14 percentages as compared to previous year and reached to Rs.274.16 billion. The loans and advances of the public banks have increased by 14.31% and private banks by 43.46%. The credit flow of the private commercial banks is growing in increasing trend. Though the credit growth of public sector bank is not consistent still their credit is also increasing.

The Nepalese Banking system is riddled with a significant amount of Non Performing assets (NPA). The total volume of NPA as on Mid July 2012 was Rs.20.47 billion, which was Rs.25.56 billion in the previous year. The NPL ratio of public sector banks has come down to 15.01 percent from 55.13 percent of year 2008/09. Similarly, the NPL ratio of private sector banks combined has also come down to 2.55 percent from 5.82 percent of year 2008/09. It is clearly evident from the following picture that the volume of Non Performing assets is on the decline while the total loans (shown in above table) are continuously increasing, thus resulting in a favorable proportion of Non Performing With regard to quality of the loan portfolio of the individual banks, Nepal Bangladesh Bank (NPL-31.73%) followed by Rastriya Banijya Bank (21.43%), Nepal Credit & Commerce Bank (16.42%), Lumbini Bank Ltd. (14.92%), Nepal Bank Ltd. (12.38%), and Agriculture Development Bank (11.69%) hold double digit NPL. The volume of Non Performing assets, which was largely on account of the portfolio of the public banks last year, has switched to private banks in year 2011/12.

### **Non-Performing Loans of the Banks**

Nepal Rastra Bank has prescribed a provision on all loan accounts of the banks, which escalates as the quality of the loan deteriorates. The banks are required to create loan loss provisions on the gross value of outstanding loans, rather than on the net loans, and they are not allowed the relaxation in terms of the value of the

collaterals. The banks, thus, have to create provisions in accordance to the quality of their loan portfolios. So, the public banks with large volumes of Non Performing assets have large provisions in their balance sheets while the provisions of the private banks (except NBBL, NCCL, and LBL) are relatively lower. After the reform program was initiated in the public banks, the volume of NPA, both gross as well as net has come down, significantly. The loan loss provision being higher than non-performing assets indicates that the proportion of good loan is getting higher in the total credit portfolio and non-performing loans are getting lower (Source: Annual Reports of 32 Commercial Banks, 2011/12)

### **Sources of Major Problem in Credit Risk Management**

Effective credit risk management allows a bank to reduce risks and potential NPLs. It also offers other benefit. Once banks understand their risk and their costs, they will be able to determine their most profitable business and thus, credit-risk strategy supported by organizational changes, risk measurement technique and fresh credit process and systems. In the context of Nepal, the sources of major problems in credit risk management are as follows (Ramamurthy, 2004:3-5).

- (i) Financial statement (including audited) do not reflected a “true and fair view” of the business entity due to creative accounting. The audited financial statement as submitted by the customers do not reflect details relating to
  - ) Encumbrance’s change on the company’s current/ fixed assets plus to whom they are changed.
  - ) Details of group company lending/borrowings
  - ) Status of income assessment etc.
  - ) Contingent liabilities.
  - ) Accounting policies.
  - ) Delegation of finding authority is based on seriously and not a complexes of the concerned officials.

- ) No exchange of credit information lack of transparency among the competition banks giving rise to multiple banking complicating to excessive shortfall etc.
- ) Absence of: Risk based pricing methodologies Customer risk rating methods Facility risk rating models Pronounced name lending. Collateral based lending instead o need based/ cash flow base lending. Over banked center contributing for severe competition and price cutting. Lack of corporate governance Permissive banking practice including names, lending, multiple banking etc. Macro level scenario of political inability slow growing economy, small domestic market. Ineffective judiciary Cross border risk disappearance of promoters Inadequacy of law to deal with crime like cheating, misfeasance.

## **2.2 Review of Books**

Michael R. Baye and Dennis W. Jensen (1996) through their book 'Money, banking and financial market: an economic approach' have tried to analyse the bank's profitability under an economic approach. They state "to maximize profits, banks should attract deposits unto the point where the value of marginal producer of deposits equals the interest rate paid on deposits."

Emphasizing the bank's modern functions Meir Kohn (1999) writes in his book, 'Financial institutions and markets': "Banks now have steadily expanded their activities in payment related services, in delegation and trust services, in credit substitution and services, and in forward transactions. In doing so, they have pursued economies of scope, relatively unconstrained by regulations" (Kohn; 1999:12).

Peter Rose (1999) in her book "Commercial Bank Management" states "Achieving superior profitability for a bank depends upon several crucial factors:

Rose Kolari & Fraser (2002) in the book, 'Financial Institutions: Understanding and managing financial services' says the following:

“Banks earn interest on loans and investments; they pay interest to the depositors. When interest rates changes, there may be an effect on income if a bank holds rate sensitive assets and liabilities. If, for example, a bank holds more rate sensitive assets than liabilities when interest rate rise, profits will be improved because the bank will receive more in increased interest revenue than it will pay out in rising costs. The reverse would be true during a period of falling interest rates.

The interest gap is the difference between rate sensitive assets and liabilities; holding more rate sensitive assets than liabilities is called a positive gap and excess of rate sensitive liabilities over assets result in a negative gap” (Fraser & Ormiston, 2002: 32)

1. Careful use of financial leverage or the proportion of bank assets financed by debts as opposed by the shareholders equity capital.
2. Careful use of operating leverage from fixed assets or the proportions of fixed cost input the bank used to boost its operating earnings before taxes as bank output grows.
3. Careful control of operating expenses so that more dollars of sales revenue become net income.
4. Careful management of assets portfolio to meet liquidity needs while seeking the highest returns from any assets acquired.
5. Careful control of the bank’s exposure to risks so that the losses don’t overwhelm its income and equity capital”.

Analyzing the behavior and future prospects for profitability of a financial institution is a complex task. Many factors affect each institution’s profitability. Among the most important factors are the friskiness of loans and investments made; liquidity needs and the institution’s provision for these needs; the effectiveness of tax management practices; the level of efficiency in utilizing

human and non-human resources; and the ability of management to control expenses (particularly interest expenses and employee costs). Well conceived lending policies and lending practices are essential if a bank is to perform its creating function effectively and minimize the risk inherent in any extension of credit (Kolari & Fraser; 1993: 124-125).

Mr. Shiva Raj Shrestha (2009), deputy director of NRB gave the following criteria for the measurement of commercial banks performance stating that “The financial health and performance of commercial banks should be evaluated under the following perspectives:

1. Deposit transactions
2. Position of investments, loans advances and overdrafts
3. Cash and liquidity position
4. Foreign currency reserve
5. Qualitative factors of loans and advances
6. Capital fund
7. Reserve funds, contingency and other funds
8. Interest rate
9. Position of income
10. Customer base and volume
11. Sources and uses of finance
12. Extension of banking services
13. Off-balance sheet transactions
14. Earnings per share
15. Banking personnel” (Shrestha; 2009: 107-108).

## **2.3 Review of Previous Studies**

### **2.3.1 Review of Articles**

Kshetry (2008), in his article says “To strike balance between profitability and services to the community, commercial banks should force on activities that provide energy to speed up the productivity and diversify services in the community” (Kshetry; 2008: 142).

Pradhan (2009), published his article in which he pointed out some major issue in local commercial banks in comparison of recently established joint venture banks through his article “Nepal ma Banijya Bank: Upalabdhhi Tatha Chunauti.” The study dealt with the whole commercial banking system of Nepal in respect of their performance and profitability. Some of his finding relevant to this study is summarized as:

1. The deposit collection rate of banks is very poor in comparison to joint venture banks.
2. The patterns of deposits are also different between these banks. The ratio of current deposit in local banks is 9.34% only where the same as the joint venture banks is 52.5%. But the fixed deposit ratio is very high in local banks” (Pradhan, 2009: 3).

Shrestha (2010), Deputy Chief Officer of Nepal Rastra Bank, Banking Operation Department, giving a short glimpse on the “Portfolio management in commercial bank, theory and practice” figured out the following.

Investors would like to select a best mix of investment assets subject to following aspects:

1. Certain capital gains
2. Good liquidity with adequate safety of investment
3. Maximum tax concession

4. Flexible investment
5. Economic, efficient and effective investment mix.

He suggested that the banks having international network can also offer access to global finance markets. He pointed out the requirements of skilled manpower, research and analysis team and proper management of information system (MIS) in any commercial bank. Mr. Shrestha concluded that:

- ) The survival of the banks depends upon their own financial health and various activities.
- ) The Nepalese banks having greater network and access to national and international capital markets have to go for portfolio management activities for the increment of their fee based income as well as to enrich the client base and contribute in national economy (Shrestha; 2010: 45).

Karki (2010), summarized some of the challenges of Nepalese financial sector through his article “Nepalese Financial Sector: Challenges and Some Solution” that:

“The liquidity position of the banking sector is rated as high as 24 percent, but the productive sector of the economy is starved by credit crunch. This has created a paradoxical situation in the banking sector. The financial institutions especially commercial banks have to identify new areas of investment to increase loans and advances to reduce the liquidity position.

With the rapid growth in the number of bank, deposit insurance scheme is a must for social justice rather than economic justification” (Karki; 2010: 26-30).

Sharma (2011), opined “Private commercial banks have mushroomed only in the urban areas where banking transactions in larger volume is possible. The rural and sub-urban areas mostly remain unattended to any of these kinds of opportunities. This is likely to prevail till competition takes its full pace and reign in the urban areas” (Sharma, 2011: 13).

### 2.3.2 Review of Thesis

Dhungana (2006) in his thesis entitled “A study on joint venture banks’ profitability” concluded that the profitability ratio of all the joint venture banks i.e., NABIL, NIBL and SCBNL were satisfactory, and their efficiency was also satisfactory in utilizing the deposits. However, they were found to mobilize savings from different parts of the country. The profit indicated in their financial statement was an inflated one, fluctuation in the foreign currency being the main reason.

The basic objectives of the research were to appraise Joint Venture Banks appropriately for the application of profitability and other objectives were listed as below:

- ) To highlight the current profit planning adopted and its effectiveness in Joint Venture Banks.
- ) To observe Joint Ventures Bank Profit Planning on the basis of overall managerial budget developed by the bank.
- ) To analyze the variance of budget and actual achievement.
- ) To study the growth of the business of the Joint Venture banks over the Period.

Major Findings observed in his study are as follows:

- ) Objectives of the joint venture bank are expressed in literary form and not specified clearly therefore there is higher danger of it being misinterpreted in the ways of one's benefit by the concern
- ) Major concentration of resources mobilization of NB bank is at deposit mobilization. In this respect they are increasing higher cost towards deposit mobilization.



- ) Deposit mobilization of Joint Ventures bank is found to be considerable growing every year. (Dhungana, 2006:78).

Another researcher Khadka (2008) in his thesis entitled “A study on investment policy of NABIL in comparison to other joint venture banks of Nepal” found that the liquidity position of NABIL was worse than that of SCBNL and NIBL. The basic objectives of the research were to study investment policy of banks and other objectives were listed as below:

- ) To highlight the investment policy of sample banks and its effectiveness credit management.
- ) To study the liquidity and profitability position of sample banks.
- ) To study the growth of the deposit and investment of sample banks over the period.

The banks such as NCC and NBBL were found to be having the worst performance as compared to all other private sector commercial banks. NABIL had been found to have more current assets as loans & advances but fewer amounts as investment on government securities. NABIL was comparatively less successful in on-balance sheet operations as well as in off-balance sheet operations than that of any other joint venture commercial banks. Profitability position of NABIL was also not found to be so better as other commercial banks despite NCC and NBBL. NABIL was more successful in deposit mobilization but had lower performance to maintain high growth rate of profit as compared to SCBNL and NIBL. Mr. Khadka suggested the joint venture banks to be more careful in increasing profit in real sense to maintain the confidence of shareholders, depositors and customers. The banks were strongly recommended to utilize their risky assets and shareholders’ funds to gain highest profit margin and reduce their expenses and collect cheaper funds for attaining more profitability. So the banks were recommended to invest their funds in different sectors of investment strategies and administer various deposit schemes to collect funds such as

cumulative deposit scheme, prize bonds scheme, gift cheque scheme, house building deposit scheme, etc

Khadka has strongly recommended Nabil to utilize its risks assets and shareholders fund to gain highest profit margin and reduce its expenses and collect cheaper fund for more profitability. He has recommended investing its assets in different sectors of investment and administering various deposits schemes to collect cheaper fund such as cumulative deposit scheme, prize bonds, gift cheque, house building deposit scheme etc. (Khadka, 2008: 82).

Shrestha (2011) in his thesis entitled “Profitability Analysis of Standard Chartered Bank Nepal Limited and Nabil Bank Limited”. The basic objectives of the research were to study investment policy of banks and other objectives were listed as below:

- ) To study the profitability position of banks and its effectiveness on overall performance of banks.
- ) To study the liquidity position of sample banks.
- ) To study the growth of the profit, deposit and investment of banks over the period.

The following are the major findings of the study:

- ) SCBNL had more consistent operating efficiency ratio than Nabil bank limited during the study period.
- ) Both of the banks data showed that more than 90% of their total liabilities paid interest. These banks showed that smaller portion of their interest bearing interest bearing liabilities paid as interest expenses.
- ) Both the banks’ weighted average cost of deposit ratio was found to be at decreasing rate.

- ) Nabil bank had lower EPS than SCBNL, which indicated that the performance of SCBNL was better than Nabil.
- ) SCBNL was paying more dividend than Nabil bank limited during the study period. The amount of dividend was almost double for SCBNL than Nabil. It meant that Nabil was in need of fund, so it was paying fewer dividends and adding more amounts under the head of retained earnings.
- ) Among the total income, more than 75% of the income came from interest sector. That indicated the main source of income was interest for both the banks.
- ) The operating expenses ratio over total expenses comprised of more than 40% for both the banks.
- ) Nabil had fluctuating return on total assets than SCBNL. SCBNL had higher return on equity than Nabil. Return on equity of Nabil was more fluctuating than that of SCBNL. SCBNL had higher return on equity ratio than that of Nabil.
- ) SCBNL had also higher interest earned to total asset ratio than Nabil.
- ) The total interest income to total earning assets ratio of both the banks were found decreasing over the years, which indicates a negative sign to the bank's performance.
- ) Nabil bank's net profit margin ratio was higher than that of SCBNL. Similarly, net interest margin of Nabil was also higher than that of SCBNL (Shrestha, 2011: 76-77).

Another researcher Shrestha (2011) in his study "Cost volume and profit analysis of commercial banks: A case study of HBL" concluded that:

- ) CVP analysis had not been practiced yet.

- ) There was no practice of segregating the total costs into fixed and variable components. The costs were roughly classified and the classification was not scientific and appropriate.
- ) All levels of management were not found to involve in profit planning and decision making of the bank.
- ) There was no complete and comprehensive budgeting system.
- ) There was no use of conducting the SWOT analysis.
- ) The bank was found to invest more than 90% of its investment fund in government debentures only.
- ) The lending of the bank was at an increasing trend.
- ) Income from interest was at decreasing trend in the later years of study.
- ) Margin of safety was excessively higher than BEP sales. And therefore it indicated the well performance of the bank on an average.

Karki, (2011) has conducted a research on “A Study of Investment Policy in Nepal Arab Bank Limited”, in comparison other joint venture banks in Nepal.

His research objectives of the study are as follows:

- i) To measure the banks investment policy. The lending strength shall be measured in absolute to analyze the volume of contribution made by each bank.
- ii) To determine the liquidity position, the impact of deposit in liquidity and its effect on lending practices.
- iii) To analyze the portfolio behavior of lending and measuring the ratio and volume of loans and advances made in agriculture, priority and productive sector.
- iv) To measure the impact of investment in quality, efficiency and its contribution in total income.

Based on the above objectives of the study, his research findings of the study are as follows:

The steady and high volume of loans and advances throughout the years has resulted Nabil's ratio to be the highest. Nabil has deployed the highest proportion of its total deposits in earning activities and this ratio is significantly above the normal ratios. This is the indicative of that in fund mobilizing activities Nabil is significantly better. In that topic he had recommended that in order to become success in competitive banking environment, bank should be able to utilize depositor's money as loans and advances. Since the largest items in bank's asset side is loans and advances, negligence of administering this could be the main cause of a liquidity crisis in the bank and also one of the main reasons of bank failure.

Kafle, (2012) in his study entitled "Non-performing Loans of Nepalese commercial banks."

The researcher's main objectives of the study are:

- i) To know the problems of the non-performing loans and its effect in the ROA and ROE of the Nepalese commercial banks
- ii) To find out whether the Nepalese commercial banks are following the NRB directives regarding loan loss provision for non-performing loan or not.
- iii) To make necessary suggestions and recommendations.

The major findings of the study are:

Through the research he has found that the no banks have been following NRB's directives regarding the loan loss provision. He also conclude that the return on assets (ROA) and return on equity (ROE) of the bank deposited upon the NPLs. The high degree of negative correlation between NPL and ROA and the NPL and ROE clearly indicates that there is inverse relation between them. He has recommended that for the smooth operation of the commercial banks, the NPLs should be controlled for this bank should provide necessary training regarding loan

management to the manpower's. In order to remove, the NPLs, banks should take enough collateral so that banks can recover its loan amount. For the loan loss provision as per the NRB directive and to reduce the NPL, the bank management should be effective and the NRB's monitoring and regulation is necessary.

## **2.4 Research Gap**

Financial scenario and effectiveness of the banks has been changed in due period of time because of increase of number of financial institution in Nepalese economy. And it is observed that it is essential to study effectiveness of investment policy of commercial banks taking samples of two banks: Standard Chartered Bank Limited and Nabil Bank Limited to support in fulfilling research gap. The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make study meaningful and purposive. There has been lots of article published on field of investment policy. There are various research available on investment analysis and policy of commercial banks, impact and implementation of Nepal Rastra Bank guideline on commercial banks but there are not sufficient researches available on lending aspect of commercial banks. In addition to this, very few research has done study on "Investment policy of joint venture bank" with reference to Standard Chartered Bank and Nabil Bank Limited. Therefore the research attempts to study in this area. To know the investment policy of these two banks will probably be the first study in this subject matter. So, this study will be fruitful to those interested person parties scholars, professor, students, businessman and government for academically as well as policy perspect.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

This chapter is related to research methodology in this study. Research methodology is a way to systematically solve the research problem. In other words, research methodology describes the methods and processes applied in the entire aspect of the study. It may be understood as a science of studying how research is done scientifically. It is necessary for the researcher to know not only the research methods but also the methodology. This chapter includes the research design, population and sample.

#### **3.1 Research Design**

Research design serves as a framework for the study, guiding the research instruments to be utilized, and the sampling plan to be followed. In other words, research design describes the general plan for collecting, analyzing and evaluating data. Research design is the planned structure and strategy of investigation conceived to obtain answers to research objectives through analysis of data. The study is based on secondary data. So the descriptive and analytical research designs have been used.

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

A small portion chosen from the population for studying its properties is called a sample and the number of units in the sample is known as the sample size. The method of selecting for study a small portion of the population to draw conclusions about characteristics of the population is known as sampling. Sampling may be defined as the selection of part of the population on the basis of which a judgment or inference about the universe is made. Here only 2 sample joint venture commercial banks have been taken out of 32 commercial banks. Which is equal to  $(2/32=0.0625)$ . All the commercial banks in Nepal are the population of the study. The sample taken from the commercial banks are as follows:

Total Banks	Sample Taken
32 Commercial Banks	NABIL and SCBNL

### **3.3 Nature and Sources of Data**

The research is based on secondary source of data for research purpose; published financial statements of concerned banks were collected. Similarly, financial statement of commercial banks and various markets related information were collected and tabulated in spreadsheet. Such secondary information was gathered from the share department of the concerned banks and Security Board of Nepal. In addition, an answer on certain queries made to staffs of concerned organization personal enquires and discussions were also being conducted for clarification and verification of collected data and for recommendation.

### **3.4 Analysis of Data**

To meet the objectives of the study, the sources of secondary data of commercial bank are analyzed by using financial tools such as ratio analysis. Simple descriptive analysis tools such as frequency, Mean, standard deviations are used. The ratio analysis involves comparison for a useful interpretation of financial statements. The quantities judgment regarding loan management of a firm can be done with the help of rate analysis. For the analysis of the data the financial and statistical tools relevant to the topic are used. They are as follows:

#### **3.4.1 Financial Tools**

##### **Ratio Analysis**

A ratio analysis is simply the number expressed in terms of another and as such it expresses the quantities relationship between any two numbers. Ratio can be expressed in terms of percentage, proportion and as coefficient. The technique of ratio analysis is a part of the whole process of analysis of financial statements of any business of industrial concern especially to take output and credit decision. Through this technique a comparative study can be made between different statistics concerning varied facts of a business different statistics concerning



varied facts of business units. Just as the blood pressure, pulse and temperatures are the measure of the health of an individual, so the ratio analysis measures the economic financial health of a business concern. Thus, the technique of ratio analysis is of a considerable significance in studying the financial stability, liquidity profitability and the quality of the business and industrial concerns (Kothari, 1994:169).

For the study period following ratios are analyzed.

- 1) Current Ratio
- 2) Liquid fund to Total liabilities Ratio
- 3) Liquid funds to Total Deposit Ratio
- 4) Total Assets to Total liability Ratio
- 5) Loans and Advances to Total Assets Ratio
- 6) Loans and Advances and Investment to Total Deposit Ratio
- 7) Loans and Advances to Shareholders Equity
- 8) Interest Income to Total Income Ratio
- 9) Interest Expenses to Total Deposit Ratio
- 10) Interest Income to Interest Expenses Ratio
- 11) Growth Ratio of Total Deposit
- 12) Growth Ratio of Loans and Advances
- 13) Growth Ratio of Total Investment
- 14) Growth Ratio of Net Profit

**1) Current Ratio:** It establishes the relationship between current assets and current liabilities. It is

Computed by dividing current assets by current liabilities. It is calculated as follows :

$$\text{current ratio} \times \frac{\text{current asset}}{\text{current liabilities}}$$

**2) Liquid fund to Total liabilities Ratio:** It establishes the relationship between liquid fund and current liabilities. It is computed by dividing liquid fund to total liabilities. Its formula is :

$$\text{Liquid fund to Total liabilities Ratio} = \frac{\text{Liquid fund}}{\text{Total liabilities}}$$

**3) Liquid funds to Total Deposit Ratio:** it measures the position of the liquid fund on total deposit which is calculated by dividing to total deposit. Its formula is as follows:

$$\text{Liquid funds to Total Deposit Ratio} = \frac{\text{Liquid fund}}{\text{Total Deposit}}$$

**4) Total Assets to Total liability Ratio:** this ratio measures the relationship between total asset and total liabilities. It is computed by dividing total assets to total liabilities. Its formula is as follows:

$$\text{Total assets to total liability ratio} = \frac{\text{Total assets}}{\text{Total liabilities}}$$

**5) Loans and Advances to Total Assets Ratio:** this ratio judge the position of loan and advances on total assets. It is calculated by dividing loan and advances by total assets. Its formula is as follows:

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

**6) Loans and Advances and Investment to Total Deposit Ratio:** This ratio measures the position of loan and advances and investment on total deposit. It is computed by dividing loan and advances and investment by total deposit. it is calculated as:

$$\text{Loans and Advances and Investment to Total Deposit Ratio} = \frac{\text{Loans \& Advances \& Investment}}{\text{Total deposit}}$$

**7) Loans and Advances to Shareholders Equity:** it is calculated by dividing loans and advances to shareholders equity. Its formula is as follows

$$\text{Loans and Advances to Shareholders Equity} = \frac{\text{Loans and Advances}}{\text{Shareholders Equity}}$$

**8) Interest Income to Total Income Ratio:** it is measured by dividing Interest Income to Total Income. Its formula is as follows:

$$\text{Loans and Advances to Shareholders Equity} \times \frac{\text{Interest income}}{\text{Total income}}$$

**9) Interest Expenses to Total Deposit Ratio:** it measures the position of the Interest expenses on total deposit. It is computed by dividing interest expenses to total deposit. Its formula is as.

$$\text{Interest Expenses to Total Deposit Ratio:} \quad \times \frac{\text{Interest expenses}}{\text{Total Deposit}}$$

**10) Interest Income to Interest Expenses Ratio:** it measures the position of interest income on interest expenses, which is computed by dividing interest income to interest expenses. Its formula is as follows:

$$\text{Interest Income to Interest Expenses Ratio:} \quad = \quad \frac{\text{Interest income}}{\text{Interest expenses}}$$

**11) Growth Ratio of Total Deposit:** it measures the growth ratio of the company or organization, which is compared by two years deposits i.e. current's year deposit and previous year's deposit. The calculation may be shown as the increasing or decreasing rate of growth of the deposit. It is calculated by dividing current's year deposit by previous year's deposit. Its formula is as follows:

$$\text{Growth Ratio of Total Deposit:} = \frac{\text{current's year deposit}}{\text{Previous year deposit}}$$

**12) Growth Ratio of Loans and Advances:** it measures the growth rate of loan and advances comparative by current's year and last year's. It is calculated by dividing current year's loan and advances by last year's loans and advances. Its formula is as follows:

$$\text{growth ratio of loans and advances:} = \frac{\text{current year's loan and deposit}}{\text{Previous year's loan and advances}}$$

**13) Growth Ratio of Total Investment :** it usually measures the growth rate of total investment, which is computed by dividing current year's total investment and last year's investment. Its formula is as follows:

$$\text{Growth Ratio of Total Investment :} = \frac{\text{current year's total investment}}{\text{Previous year's total investment}}$$

**14)Growth Ratio of Net Profit:** it usually measures the growth rate of net profit, which is computed by dividing current year's net profit by previous year's net profit. Its formula is as follows:

$$\text{Growth Ratio of Net Profit} := \frac{\text{current years net profit}}{\text{Previous years net profit}}$$

### Statistical Tools

#### 3.4.2 Correlation Coefficient Analysis

The analysis identifies and interprets the relationship between the two or more variables. Karl-Person's Correlation Coefficient has been used to find out relationship between the variables in order to know the effect in one variable may have effect in the correlated variable. In our study relationship between the various variable. It is calculated by:

$$r = \frac{n \sum xy - \sum x \cdot \sum y}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

r = Correlation coefficient

n = Number of years

$\sum x$  = Sum of X series

$\sum y$  = Sum of Y series

$\sum xy$  = Sum of X and Y series

$\sum x^2$  = Sum of square of X series

$\sum y^2$  = Sum of square of Y series

x & y = Financial Variable of joint venture banks.

Correlation analysis describes the relationship between variables i.e. positive or negative. It helps to determine the following: A positive or negative relationship exists. The relationship is significant or insignificant. Establish cause and effect relation if any.

The statement tool- correlation analysis is used in the study to measure the relationship between variables in determining within the relationship is significant or not. For the purpose decision making interpretation are based on the following terms.

1. When,  $r = 1$ , then is perfect positive correlation.  
When  $r = -1$ , then is perfect negative correlation.
2. When  $r = 0$ , then is no correlation.
3. When, 'r' lies between 0.7 to 0.999 (-0.7 to -0.999), then is high degree of positive (negative) correlation.
4. When 'r' lies between 0.5 to 0.6999 there is moderate degree of correlation.
5. When, 'r' is less than 0.5. There is low degree of correlation.

$$\text{Probable Error or P.E (r)} = \frac{0.6745 (1-r^2)}{\sqrt{N}}$$

### 3.4.3 Trend Analysis

Trend analysis is the analysis of a firm's financial ratio over time used to estimate the likelihood of improvement or deterioration in its financial condition. It is important to analyze trend in ratios as well as their absolute level, for trends give clues as to whether a firm's financial conduction is likely to improve or to deteriorate. Trend analysis is calculated by:

$$y = a + bx$$

$$\text{Here, } a = \frac{\sum Y}{N}$$

$$b = \frac{\sum xy}{\sum x^2}$$

Combine Mean is calculated by:

$$\bar{X}_{12} = \frac{\bar{X}_1 N_1 + \bar{X}_2 N_2}{N_1 + N_2}$$

## CHAPTER-IV

### DATA PRESENTATION AND ANALYSIS

This chapter is related to presentation and analysis of data collected from various primary and secondary sources. The chapter has been divided into main three sections. The first part of the chapter involves the analysis of secondary data while the second part includes the analysis of primary data and the last part of the chapter includes the major findings of the study.

#### 4.1 Measurement of Liquidity Position

##### 4.1.1 Current Ratio

This is the crude measurement of liquidity ratio. It measures the ratio between total current assets and total current liabilities. The current asset include cash and bank balance with cheque in hand, balance with Nepal Rastra Bank, money at call and short notices, investment in government securities, bills purchased and discovered loans, and advances and other current assets, similarly, current liability includes borrowing from other banks, deposit, bills payable, and the current assets.

**Table 4.1**  
**Status of Current Ratio**

	Fiscal year					
Banks	2007/08	2008/09	2009/10	2010/11	2011/12	Mean
NABIL	1.0406	1.0359	1.0895	1.0850	1.0761	1.0654
SCBNL	1.0128	1.0298	1.0275	1.0099	1.0126	1.01852

Source: Annual Report of Nabil Bank and Standard Chartered Bank limited.

The combined mean ratio is 1.04196, if we measure the performance of these banks based in this mean, the performance of Nabil bank is weak and the Standard Chartered Bank has maintained good liquid assets. The mean current

ratio of Nabil Bank is 1.0654 and Standard Chartered Bank is 1.01852 which is highest than Nabil Bank. Standard Chartered Bank implies a high liquidity ratio. Table measures the current ratio of two banks of five consecutive years. Nabil Bank has highest ratio in 2009/10 i.e.1.0895 and lowest ratio in 2008/09 i.e. 1.0359. Similarly Standard Chartered Bank has highest ratio in 2008/09 i.e.1.0298 and lowest ratio in 2010/11 i.e. 1.0099. The ratio is in fluctuating trend in both banks. The ratio has been ranged from 1.0359 to 1.0895 Nabil Bank. Table explains that the current ratio of Standard Chartered Bank is 1.0099 to 1.0298 .The overall trend of current of the two based ratio is slightly changed.

#### **4.1.2. Liquid Fund to Current Liability Ratio**

Since the current ratio gives only the short and crude idea of liquidity position of a firm, measuring its liquidity ratio depending on liquid fund is more significant. Liquid fund comprises of those assets, which can be converted into cash within a short period without decline in their value. Cash in hand, balance with Nepal Rastra Bank, balance with other banks and money at call included in calculating the liquid fund. The ratio measures a bank ability to discharge its current liability in an adverse condition without undergoing its liquidity risk.

**Table 4.2**  
**Liquid Fund to Current Liability Ratio**

Banks	Fiscal year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
NABIL	0.00869	0.1713	0.0977	0.1536	0.0707	0.100398
SCBNL	0.09297	0.1097	0.1685	0.079	0.01057	0.92148
Combined mean						0.096273

Source: Annual Report of Nabil Bank and Standard Chartered Bank

Table 4.2 explains that the ratio has been ranged from 0.00869 to 0.1713 of Nabil Bank and 0.01057 to 0.1685 of Standard Chartered Bank. The ratio of Nabil Bank of first two years has increasing trend; it is decreasing in 2007/08 year and then

again increasing in 2008/09. The ratios of Standard Chartered Bank first three years have in increasing trend but it has fallen in 2011/12 and then again it has increased in FY 2009/10. Unlike current ratio, the liquid fund to current liability ratio has been declined. This declined in two banks has caused due to high degree of increase in investment and decreased or lower level of increase in placement.

#### 4.1.3 Liquid Fund to total Deposit Ratio

The deposit constitutes the major part of the banks liability. Flow of these liabilities is always uncertain in the bank's fund management. Hence, the ratio of liquid fund to total deposit indicates the banks' strength to meet uncertain flow of deposit.

**Table 4.3**  
**Loan Fund to Total Deposit Ratio**

Banks	Fiscal Year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
NABIL	0.09112	0.1825	0.1267	0.1702	0.0783	0.1297
SCBNL	0.09112	0.1193	0.1849	0.0841	0.1122	0.11834
						0.12402

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

Above table explains that the ratio has ranged from 0.0783 to 0.1825 of Nabil Bank and 0.0841 to 0.01849 of Standard Chartered Bank .The trend of this ratio of Nabil Bank and Standard Chartered Bank seems similar in nature in 2007/08 and increased in the first two years as compared to previous year and has started to decline from FY 2009/10. The trend of this ratio has not deviated from liquid fund to current liability ratio and the up and down in this ratio has caused by the some reason. The combined mean ratio of these two banks is 0.12402.The mean ratio of



Nabil Bank is 0.1297 and Standard Chartered Bank is 0.11834 and this is lowest ratio then Nabil Bank.

#### 4.2 Measurement of Lending Strength

The lending strength of these two banks is measured in relative measures in this section. The relationship between various assets and liabilities of the balance sheet has been established to show the active strength of lending comparatively. An attempt is made to determine the lending strength in absolute figure of each bank, since these two banks are comparable in volume of deposit loans and advances and other variables also.

##### 4.2.1 Total Assets to Total Liabilities Ratio

The ratio of total assets to total liabilities measures the volume of total liability in total assets of the firm. Then banking organization creates credit by way of lending activities and multiplies their assets many items, than their liability permits. Thus, this ratio measures the banks ability to multiply its liability into assets. It is always recommended to have higher ratio of total assets to total liabilities ratio. Since, it signifies overall increase of credit and overall development of the organization, Higher the ratio, higher the productivity and higher the assets conversion and vice versa.

**Table 4.4**  
**Total Assets to Total Liabilities Ratio**

Banks	Fiscal Year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
NABIL	1.0632	1.0645	1.0628	1.0623	1.0595	1.0625
SCBNL	1.0571	1.0635	1.05980	1.0607	1.0483	1.0579
Combined Mean						1.0602

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

Table 4.4 explains the ratio of liabilities and assets of concerned bank in respective years. All these banks have high degree of ratio. The overall trend of Nabil Bank is

decreasing. The ratio has been ranging from 1.0654 to 1.0595 of Nabil Bank and 1.0635 to 1.0483 Standard Chartered Bank. The combined mean ratio of these two banks over the period is 1.0602. The mean ratio of Nabil Bank is 1.0625 which is higher than the mean ratio of Standard Chartered Bank 1.0579. Taking the standard of mean ratio the performance of Nabil Bank is best and the ratio of Standard Chartered Bank is below the average. However, the ratio of these two banks represents a poor performance. The ratio should not be below 2 times in the developing country like Nepal. This represents that these two banks have not successfully converted their liability into asset. Table 4.4 explain that the ratio of two banks is decreasing in some extend. Looking this fact, it can be concluded that these banks are not utilizing their fund efficiently and effectively to extent, their liability permits them. As comparing between the banks the performance Nabil Bank can be regarded the best.

#### **4.2.2 Loans and Advances to Total Deposit Ratio**

Loan and advances are the major area of fund mobilization of commercial Banks. Loans and advances is the first type of application of funds, which has more risk. Loans and advances and total deposit ratio indicates the firm's fund mobilization power in gross. The main sources of bank's lending are its deposit. Thus, this ratio measures how well deposits have been mobilized. This ratio measures the ability of a bank generating income from bank's deposit liability.

**Table 4.5**  
**Loan and Advances to Total Deposit Ratio**

Banks	Fiscal Year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
NABIL	0.7425	0.6571	0.7223	0.7331	0.7297	0.7169
SCBNL	0.7139	0.8556	0.8022	0.6850	0.6753	0.7464
Combined Mean						0.7316

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

Table 4.5 explains the relation between a unit of deposit with the value of loans and advances of concern banks in given years. The ratios have been ranged from 0.7425 to 0.6571 of Nabil Bank in FY 2007/08 and 2008/09 and 0.8555 and to 0.6753 of Standard Chartered Bank in FY 2008/09 and 2011/12. The combined mean ratio of these two banks is 0.7316. The overall performance of Standard Chartered Bank seems the best with mean ratio. From this analysis, Standard Chartered Bank can be concluded as the best performer in utilization its deposit irrespective the area of its utilization.

### 4.2.3 Loans and Advances and investment to Total Deposit Ratio

Loan and advances and investment are the major area of fund mobilization of commercial banks. Loans and Advances is the first type of application of funds. This has more risk as compare to investment and gives more returns. Investment is cushion against the liquidity risk and at the same time it gives return. Loans and advances and investment to total deposit ratio indicates the firm's fund mobilizing power in gross. The main sources of bank's lending and investment is its deposit. Thus, this ratio measures how will the deposits have been mobilized. This ratio measures the ability of a bank in generating income from bank's deposit liability.

Table 4.6 explains the relation between a unit of deposit with the tabulated value in loans and advances and investment of concerning banks in given years. The ratios have been ranged from 1.0038 of Nabil Bank in FY 2009/10 to 0.9342 of Standard Chartered Bank in FY 2008/09. Nabil Bank has the highest ratio for the whole period. Standard Chartered Bank has the lowest ratio throughout five years.

**Table 4.6**

#### **Loan and Advances and Investment to Total Deposit Ratio**

Banks	Fiscal Year					Mean
	2004/05	2005/06	2006/07	2007/08	2008/09	
NABIL	0.8267	0.8369	1.0038	0.9720	1.0355	0.9349
SCBNL	0.7825	0.9342	0.9042	0.8864	0.8830	0.8780
Combined Mean						0.9064

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

This combined mean ratio of these two banks is 0.9064. The overall performance of Nabil Bank seems the best with mean ratio 0.9349. Standard Chartered Bank has the mean ratio of 0.8780. From this analysis Nabil Bank can be concluded as the best performs in utilizing its deposit irrespective of the area of its utilization.

#### 4.2.4 Loan and Advances to Shareholders Equity

Shareholders equity is consisted of share capital, share premium, reserves and retained earnings. The ratio between loans and advances to shareholders equity provides the measures regarding how far the shareholders equity has been able to generate assets to multiply its wealth. The shareholders equity refers to the net shareholders in take in the business and their success in covering liabilities into assets.

**Table: 4.7**  
**Loan and Advances to Shareholders Equity**

Banks	Fiscal Year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
NABIL	11.1914	9.4106	10.1007	10.3810	10.8898	10.3947
SCBNL	11.6419	12.3653	12.1828	10.5977	13.1726	11.9920
Combined Mean						11.1933

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

Table 4.7 explains that the overall ratio of these two banks has ranged from 11.1914 of Nabil Bank in FY 2007/08 to 13.1726 of Standard Chartered Bank in 2011/12. The ratio of Nabil bank has continuously increasing trend from FY 2008/09. The combined mean ratio of these two banks 11.1933 and mean ratio of Nabil Bank is 10.3947 and mean ratio of Standard Chartered Bank is 11.9920 respectively. This indicates that Standard Chartered Bank having small volume of

capital in business has been succeeded in generating proportionately higher volume of loan due to the entire business.

### 4.3 Analysis of Lending Efficiency and Contribution in Total profitability

Lending efficiency is one of the most important factors that have been developed to facilitate effective performance of bank management. Lending management is the formal expression of the commercial banks goals and objectives stated in financial term for specific future period of time. Lending is the very basic indicators for determining profit.

**Table 4.8**  
**Sector wise Loan Classification of Nabil Bank Ltd.**

Ratio (in %)

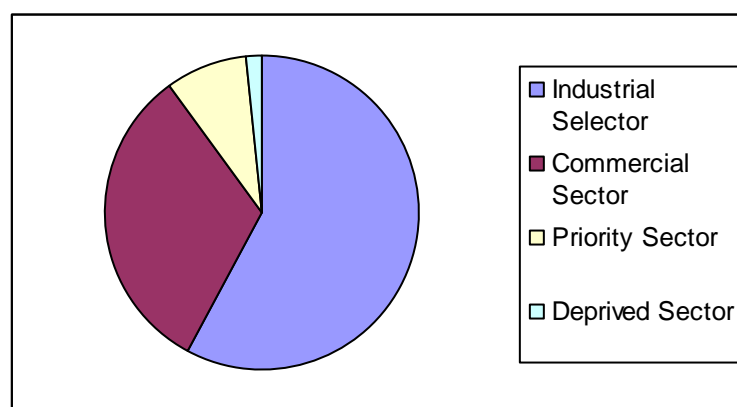
Purpose	Fiscal year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
Industrial Selector	15.2026	11.2508	6.5053	4.0462	2.5326	7.9075
Commercial Sector	8.4636	7.3851	7.4330	2.3681	2.3259	5.5951
Priority Sector	2.1585	1.6578	1.3945	1.2636	1.2212	1.5391
Deprived Sector	0.4419	0.3780	0.3318	0.3521	0.3826	0.3772

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

The above table explain Nabil Bank trend of lending for different purposes as percentage of total loans and advances. Nabil Bank has mostly used its funds in industry and commercial sector. In average, lending in industrial, commercial, priority and deprived sectors take the first, second, third and fourth place with mean ratios of 7.9075%, 5.5951%, 1.5391 and 0.3772 respectively in the lending portfolio of the bank. The highest portion of lending in industrial sector, Commercial sector, and priority sectors and deprived sector is 15.2026%, 8.4636%, 2.1585% and 0.4419 in the year 2007/08 respectively. Mean Ratios of Loans disbursed for different purposes to total loans and advances over the study period.

**Figure 4.1**

**Sector wise Loan Classification of Nabil Bank Ltd**



**Table 4.9**

**Sector wise Loan Classification of Standard Chartered Bank**

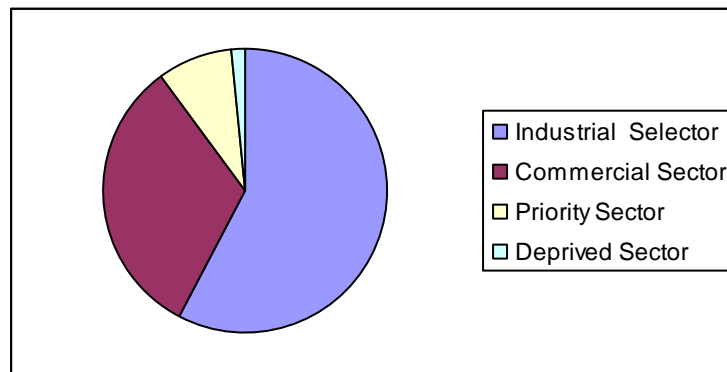
Purpose	Fiscal year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
Industrial Selector	15.2026	11.2508	6.5053	4.0462	2.5326	7.9075
Commercial Sector	8.4636	7.3851	7.4330	2.3681	2.3259	5.5951
Priority Sector	2.1585	1.6578	1.3945	1.2636	1.2212	1.5391
Deprived Sector	0.4419	0.3780	0.3318	0.3521	0.38026	0.3772

Source: Annual Report of Standard Chartered Bank.

The above table 4.9 explains Standard Chartered Bank's trend of lending for different purposes as percentage of total loans and advances. Standard Chartered Bank has mostly used its funds in industrial and commercial sector. In average, lending in industrial, commercial, priority and deprived sectors take the first, second, third and fourth place with mean ratios of 7.9075%, 5.5951%, 1.5391 and 0.3772 respectively in the lending portfolio of the bank. The highest portion of lending in industrial sector, commercial priority and deprived sector is 15.2026%, 8.4636, 2.1585% and 0.4419% in 2007/08 respectively.

**Figure 4.2**

**Sector wise Loan Classification of SCBNL**



In this section lending efficiency is measured in terms of quality and its turnover. A relationship between different variables related to lending efficiency is taken from balance sheet and profit and loss account.

**4.3.1 Interest Income to Total Income Ratio**

Income is one of the most important parts of any business organization. Interest income occupies a greater portion of the total income in a banking business. This ratio measures the volume of interest income in total income. It helps to measure the bank's performance on other fee-based activities also. The high ratio indicates the high contribution made by lending and investment and high contribution by other based activities in total income. The ratio measures the volume of interest income in total income of the bank. This ratio helps to measure the bank's performance on how well they are mobilizing their fund for the purpose of income generation. This ratio also helps to measure the bank's performance on other fee-based activities, since after investing functions fee based activities are the major source of bank's income to total income.

**Table 4.10**  
**Interest Income to Total Income Ratio (%)**

Banks	Fiscal year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
NABIL	6.48	5.52	5.20	5.53	4.58	5.46
SCBNL	4.37	4.07	12.93	14.17	41.39	15.38
Combined Mean						10.42

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

The above table shows that Standard Chartered Bank has the highest ratio than that of Nabil Bank. The ratio of these two Banks has ranged from 6.48 of Nabil Bank in FY 2007/08 to 41.39% of Standard Chartered Bank in FY 2011/12. The combined mean ratio of these two banks is 10.42. Mean ratio of Nabil Bank is 5.46 and mean ratio of Standard Chartered Bank is 15.38. Standard Chartered Bank has higher ratio which indicates that it is largely dependent on lending activities and low ratio indicates it has low dependency on lending activity and other fee based activities.

#### **4.3.2 Interest Expenses to Total Deposit Ratio**

This ratio measures the cost to total deposit in relative term. The commercial banks performance depends upon its ability to generate cheaper funds. More the cheaper fund more will be the profitability in generating loans and advances and vice-versa. The high ratio indicates of costly fund and this adversely affects its lending performance.

**Table 4.11**  
**Interest Expenses to Total Income Ratio**

Banks	Fiscal year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
NABIL	0.0582	0.05162	0.04702	0.0458	0.0389	0.0483
SCBNL	0.0642	0.0599	0.0578	0.0561	0.0484	0.0573
Combined Mean						0.1056

Source: Annual Report of Nabil Bank and Standard Chartered Bank.



Above table shows that the ratio of Nabil Bank and Standard Chartered Bank are in decreasing trends. The ratio ranges from minimum of 0.0389 in FY 2011/12 to maximum of 0.0582 in FY 2007/08 of Nabil Bank. And ratio ranges from minimum of 0.484 in FY 2011/12 to maximum of 0.0642 on FY of Standard Chartered Bank. The combined mean ratios of these two banks are 0.1056. The mean ratio of Nabil Bank is 0.0483 and mean ratio of Standard Chartered Bank is higher than that of Nabil Bank. The mean ratio of Standard Chartered Bank is higher than that of Nabil Bank due to lack of lending opportunities, the supply of the fund is exceeding the demand of the fund.

### 4.3.3 Interest Income to Interest Expenses Ratio

The ratio of interest income to interest expenses ratio measures the difference between interest rates offered and interest rate charged. The spread between the interest income and interest expenses is the main foundation for the commercial banks. The interest offered and the interest charged should not be more than five percent. The commercial banks are free to fix interest rate on deposit and loans. Interest rate on all types of deposits and loans should be published on local newspapers and communicated to Nepal Rastra Bank quarterly and immediately when revised. Deviation of 0.50 % from the published rate is allowed on all types of loans and deposit. However with the new Financial Ordinance 2066, it has again empowered Nepal Rastra Bank to intervene in rate fixation but it does not specify condition that would oblige Nepal Rastra Bank to do so.

**Table 4.12**  
**Interest Income to Interest Expenses Ratio**

Banks	Fiscal year					Mean
	2007/08	2008/09	2009/10	2010/11	2011/12	
NABIL	0.6651	0.6133	0.5792	0.5890	0.4784	0.5850
SCBNL	0.6811	0.6368	0.6467	0.5865	0.5668	0.6235
Combined Mean						0.6042

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

From the above table it can be analyzed that the ratio of Standard Chartered Bank is higher than the ratio of Nabil Bank over the five years. The ratio ranged from

0.6651 of Nabil Bank in 2007/08 to 0.6811 of Standard Chartered Bank in 2007/08. The combined mean of these two banks is 0.6042.

#### 4.4 Analysis of Growth Rate

Growth analysis of the banks involves of growth in deposit, loans, investments and net profit. Growth analysis ascertains has much growth in deposit liability is supported by growth in assets. The analysis also concerns which asset portfolio has significant increment corresponding to the increment in deposit liability.

To examine and analyze the expansion and growth of the banking business, following growth ratios are calculated in this part of the study. The higher ratios represent the better performance of the bank. Growth ratios are directly related to the fund mobilization and investments decision of the bank. This ratio represents how well the commercial banks are maintaining their economic and financial position. These ratios can be calculated by dividing the last period figure by the first period figure then by referring to the compound interest tables. Under these topic four types of ratios namely growth ratios of total deposit, loans and advances, Total Investment, and net profit of Nabil Bank and Standard Chartered Bank for the study period have been analyzed.

##### 4.4.1 Growth Ratio of Total Deposit

Deposits are the main source of capital for the commercial banks. Banks utilize these funds in loans and advances and as investments.

**Table 4.13**

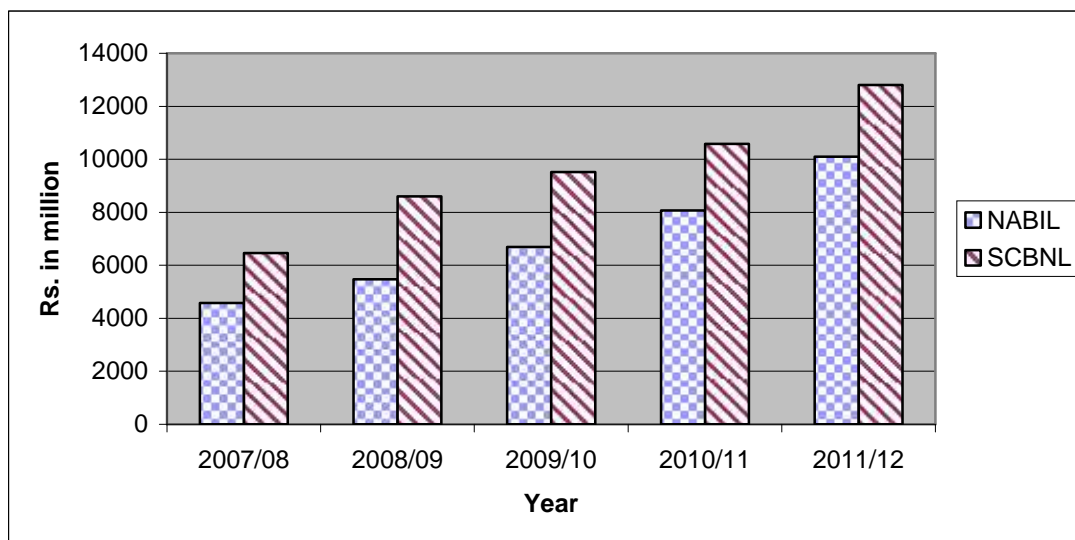
**Growth Ratio of Total Deposit of abil Bank and Standard Chartered Bank**

(Rs. In million)

Banks	Fiscal year				
	2007/08	2008/09	2009/10	2010/11	2011/12
NABIL	4574.51	5466.60	6695.00	8063.90	10097.7
SCBNL	6467.19	8600.81	9514.47	10580.65	12807.37

Source: Annual Report of Nabil Bank and Standard Chartered Bank

**Figure 4.3**  
**Growth trend of Deposit**



The above table shows the growth of total deposit by analysis of five years period of Nabil Bank and Standard Chartered Bank. Standard Chartered Bank has the highest deposit of Rs. 12807.37 million and Nabil bank has Rs. 10097.70.million which is lowest than that of Standard Chartered Bank According to highest range of the total deposit, we can conclude that Standard Chartered Bank has good performance than Nabil Bank

#### 4.4.2 Growth Ratio of Loans and Advances

Loans and advances is the major function of the commercial banking of those loans and advances determines the book performance.

**Table 4.14**  
**Growth Ratio of Loans and Advances of abil Bank and Standard Chartered Bank**

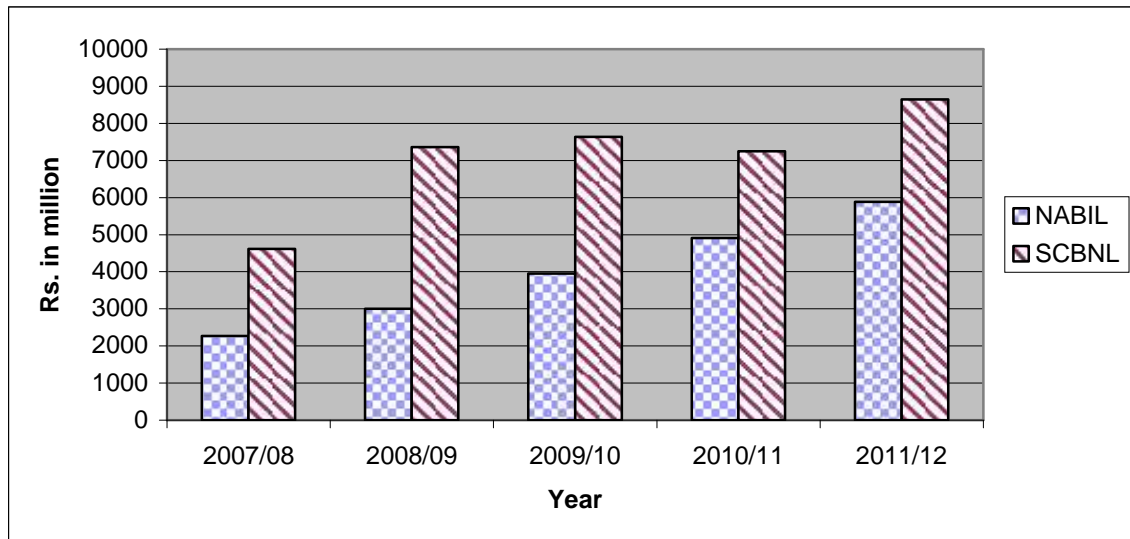
(Rs.In million)

Banks	Fiscal year				
	2007/08	2008/09	2009/10	2010/11	2011/12
NABIL	2270.18	3005.76	3948.48	4908.46	5884.12
SCBNL	4617.10	7358.84	7632.42	7247	8648.74

Source: Annual Report of Nabil bank and Standard Chartered Bank.

**Figure 4.4**

**Growth Ratio of Loans and Advances of Nabil Bank and Standard Chartered Bank**



The above table shows the growth of loans and advances of Nabil bank and Standard Chartered Bank. There is increasing trend on loans and advances of Nabil Bank. Loans and Advances of Standard Chartered Bank is highest than that of Nabil Bank in five years during the study period. During the study period it has a significant growth of these two banks and explains its aggressiveness.

**4.4.3 Growth Ratio of Investment**

Investment is another important function of banking besides loans and advances. Investment determines the proper utilization of funds

**Table 4.15**

**Growth Ratio of Total Investment of Nabil Bank and Standard Chartered Bank**

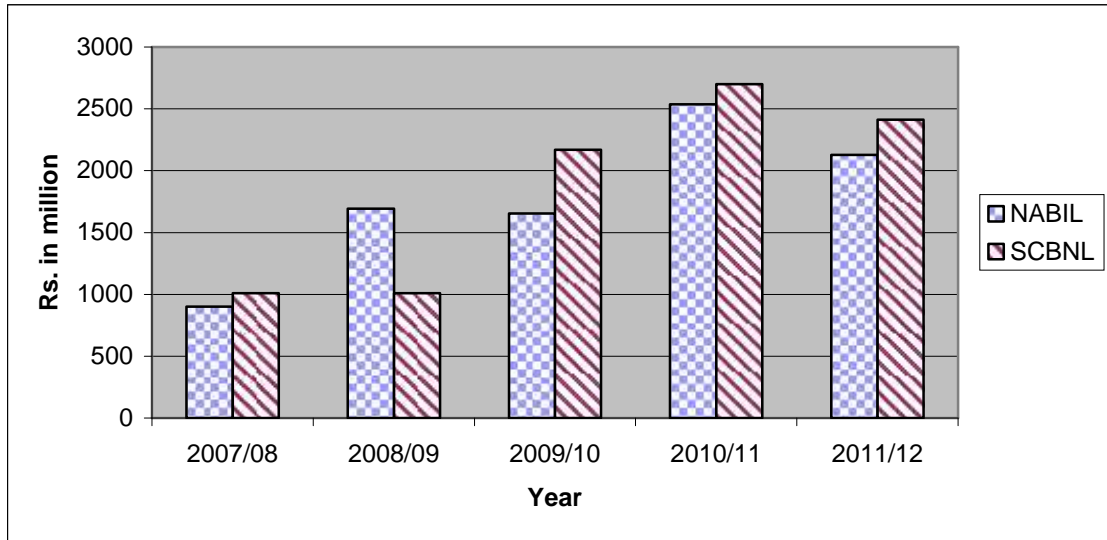
(Rs.In million)

Banks	Fiscal year				
	2007/08	2008/09	2009/10	2010/11	2011/12
NABIL	901.70	1693.00	1654.00	2535.70	2128.90
SCBNL	1008.64	1008.64	2168.92	2699.16	2411.72

Source: Annual Report of Nabil Bank and Standard Chartered Bank.

**Figure 4.5**

**Growth Trend of Total Investment of Nabil Bank and Standard Chartered Bank**



The above table shows that there is an increasing trend over 2010/11 and then it is decreasing trend in FY 2011/12 in investment of Nabil Bank and Standard Chartered Bank. During the study period total investment of Standard Chartered Bank is height than that Nabil Bank.

**4.4.4 Growth Ratio of Net Profit**

A commercial banks performance measuring criteria is its net profit. The growth of net profit reveals the overall performance of the banks.

**Table 4.16**

**Growth Ratio of Net Profit of NABIL and SCBNL**

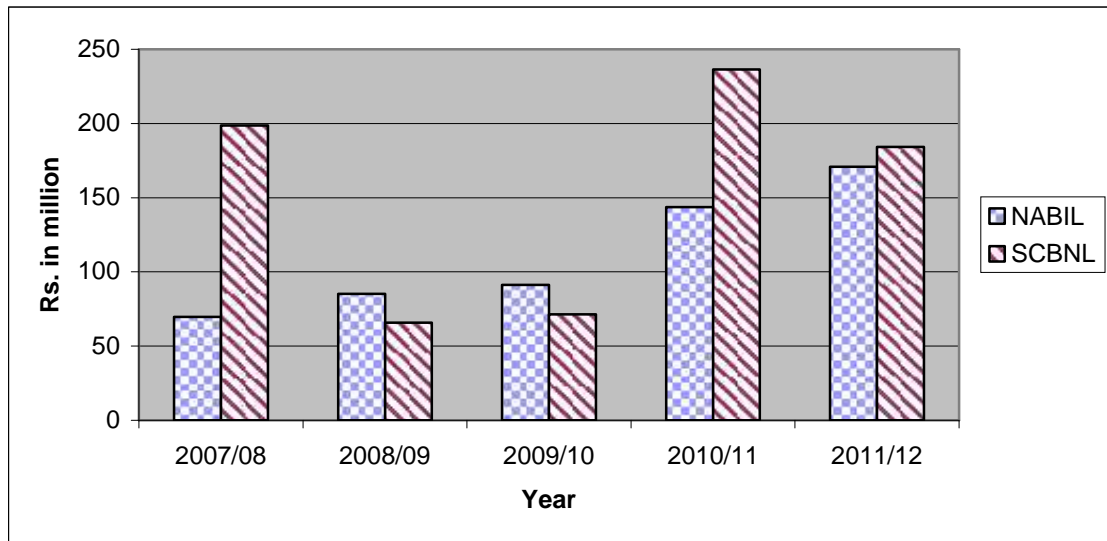
(Rs. in million)

Banks	Fiscal year				
	2007/08	2008/09	2009/10	2010/11	2011/12
NABIL	69.70	85.30	91.20	143.60	170.80
SCBNL	198.75	65.78	71.49	236.43	184.23

Source: Annual Report of Nabil Bank Ltd and Standard Chartered Bank Ltd.

**Figure 4.6**

**Growth Trend of Net Profit of Nabil Bank and Standard Chartered Bank**



The above table describes the growth rate of net profit of Nabil Bank and Standard Chartered Bank of five years the study period. Nabil Bank has the highest profit of Rs.170.80 million in FY 2011/12 and Standard Chartered Bank has the highest profit of Rs. 198.75 million in FY 2008/09 It has increasing trend of profit of Nabil Bank But profit of Standard Chartered Bank has fluctuation over the study period.

**4.5 Relation between Deposit and Loans of NABIL and SCBNL**

Relationship between deposit and loans of Nabil Bank and Standard Chartered Bank can be determined by correlation coefficient between two. If the change in the value of one variable is accompanied by the change in the value of the other, the variables said to have relationship.

**Table 4.17**

**Relationship between Deposit and Loans**

(Rs.In million)

Banks	Correlation Coefficient	r <sup>2</sup>	P.Er.	6 * P.Er.
NABIL	0.1027	0.0105	0.2985	0.7910
SCBNL	0.9538	0.9097	0.2744	1.6464

Source: Annual Report of Nabil Bank Ltd and Standard Chartered Bank Ltd.

The above table shows the Correlation Coefficient between deposit and loans and advances of Nabil Bank and Standard Chartered Bank is 0.9538 and 0.1027 respectively. There is high degree of positive relationship between deposit and loans and advances of Standard Chartered Bank. The deposit and loans and advances of Standard Chartered Bank have lower degree of relationship. The value of (r) above explains that a percentage increase in deposit likely generate. Similarly, coefficient of determination ( $r^2$ ) was found to be 0.9097 which indicates that 90.97 % of total change in loans has been determined by deposit. Deposits have high influence on loans of the Nabil Bank, whereas deposits low influence on loans of the Standard Chartered Bank as it has very low i.e. 0.0105. There is an insignificant, as role of 'r' of Nabil Bank and Standard Chartered Bank is less than 6 times of P.Er.

#### **4.6 Relationship between Total Investment and Loans and Advances**

This correlation measures the degree of relationship between investment and loans and advances. This measures of correlation explain where the banks have a rigid policy to maintain a consistent relationship between two assets or other factor such as seasonal opportunity, economic demand, Nepal Rastya Bank directives etc. has impact on the volume of these two variables since the volume of investment and advance directly reduce or increases the level of ideal fund and this idleness of fund increases the investments. Table 4.18 reveals the poor relationship between investment and loans and advance. There is high degree of negative relationship between these two variables of Nabil Bank has the value of r is less than the value of P.Er. However Standard Chartered Bank has greater than 6 times P.Er. This implies that Standard Chartered Bank has maintained a steady ratio between investment and loans and advances as compared to Standard Chartered Bank. The value of r is Standard Chartered Bank suggests that it does not have rigid policy to maintain and fixed and consistent ratio between these assets and the volume of these assets in Standard Chartered Bank is highly of seasonal character than that is explained by the value of r is Standard Chartered Bank.

**Table 4.18**

**Relationship between Total Investment and Loans and Advances**

Banks	Correlation coefficient	P.Er	6 x P.Er
SCBNL	-0.6144	0.1163	0.6978
NABIL	0.8394	0.0891	0.5346

Source: Annual report of Nabil Bank Ltd and Standard Chartered Bank Ltd.

Through the above table, we can conclude that Nabil Bank has the good opportunity of lending and investment than Standard Chartered Bank, due to highest degree of positive correlation.

**4.7 Relationship between Total Income and Loans and Advances**

The correlation between total income and loans and advances measures the degree of relationship between these two variables. The value of r explains whether a percentage change in loans and advances it is independent variable and total income is dependent variable.

**Table 4.19**

**Relationship between Total Income and Loans and Advances**

Banks	Correlation coefficient	P.Er	6 x P.Er
SCBNL	0.3819	0.2926	1.7556
NABIL	0.9810	0.1135	0.0681

Source: annual report of Nabil Bank Ltd and Standard Chartered Bank Ltd.

Table 4.19 presented above has shown the tight degree of positive correlation of Nabil Bank. The value of r in Nabil Bank is significant as it is greater than six time of probable error. This explains that a percentage charge in loans and advances is most likely to chance the same percentage of income, the lower degree of correlation of Standard Chartered Bank.



#### 4.8 Relationship between Interest Income and Net Profit

The correlation between Interest Income and Net Profit measures the degree of relationship between these two variables. The interest income contributes a major portion of total volume of commercial banks income. In this analysis, interest income is independent variable and net profit is dependent variable.

**Table 4.20**

##### **Relationship between Interest Income and Net Profit**

Banks	Correlation coefficient	P.Er	6 x P.Er
SCBNL	-0.7676	0.1385	-0.1063
NABIL	0.7318	0.1401	-0.1063

Source: annual report of Nabil Bank and Standard Chartered Bank

The table explains that the value of r Nabil Bank high degree of correlation, as the value of r of Standard Chartered Bank is negative correlation. There is a significant, as role of 'r' of Nabil Bank is more than 6 times P.Er. But there is not significant, as the value 'r' is less than 6 times of P.Er.

#### 4.9 Trend Analysis of Deposit Utilization

This analysis includes the trend of deposit utilization in terms of loans and adverse and investment of Nabil Bank and Standard Chartered Bank under five years of study period. A commercial bank may grant loans advances and invest some of the funds in government securities and share and debenture of other companies to utilize its deposit.

##### 4.9.1 Trend Analysis of Loans and Advances Ratio

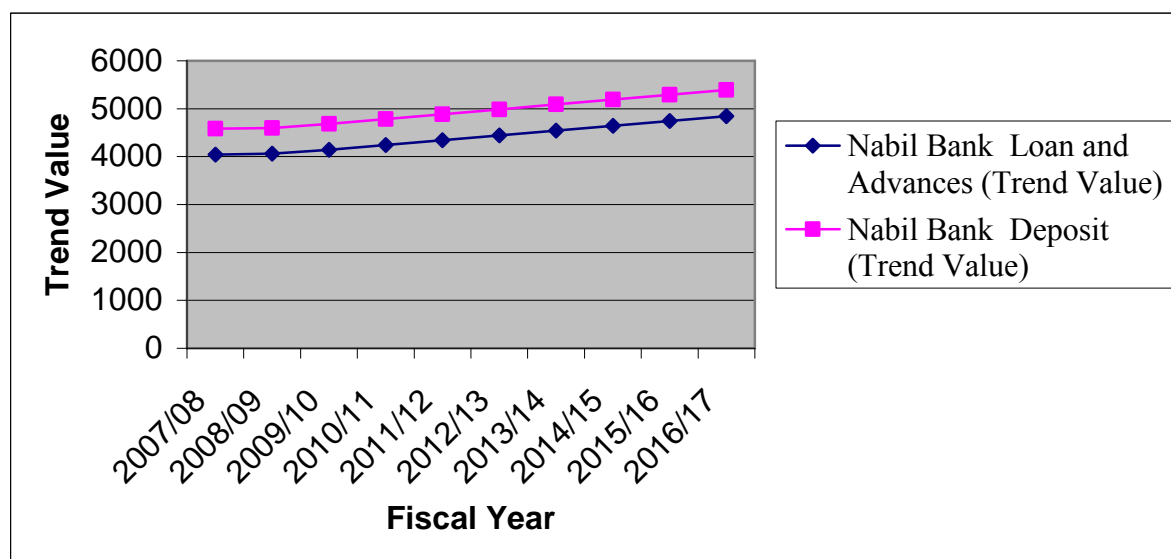
The trend analysis of loans and advances to total deposit ratio of Nabil Bank and Standard Chartered Bank have five years study period and projection of trend for the next five years is calculated. The following table describes the trend value of loans and advances to total deposit of the bank for five years.

**Table 4.21**  
**Trend Analysis of Loans and Advances Ratio of**  
**NABIL and SCBNL**

Fiscal Year (Mid Value)	Nabil Bank (Trend Value)	Standard Chartered Bank ( Trend Value)
2007/08	4044.82	6848.95
2008/09	4044.96	6847.10
2009/10	4045.11	6847.26
2010/11	4045.25	6847.42
2011/12	4045.40	6847.57
2012/13	4045.55	6847.73
2013/14	4045.69	6847.89
2014/15	4045.84	6847.85
2015/16	4045.98	6848.20
2016/17	4046.13	6848.35

Source: Appendix-14

**Figure 4.7**  
**Trend Analysis of Loans & Advances and Total Deposit of Nabil Bank**



The above table shows that the total loans and advances and deposit of Nabil Bank and Standard Chartered Bank were increasing trend. Nabil Bank has the highest

trend value of 4046.13 in the year 20011/12. The increasing trend of loans and advances and total deposit ratio of both books shows the good performance of the selected banks is providing loans and advances in deposit in profit earning sector.

#### **4.9.2 Trend Analysis of Total Deposit Ratio**

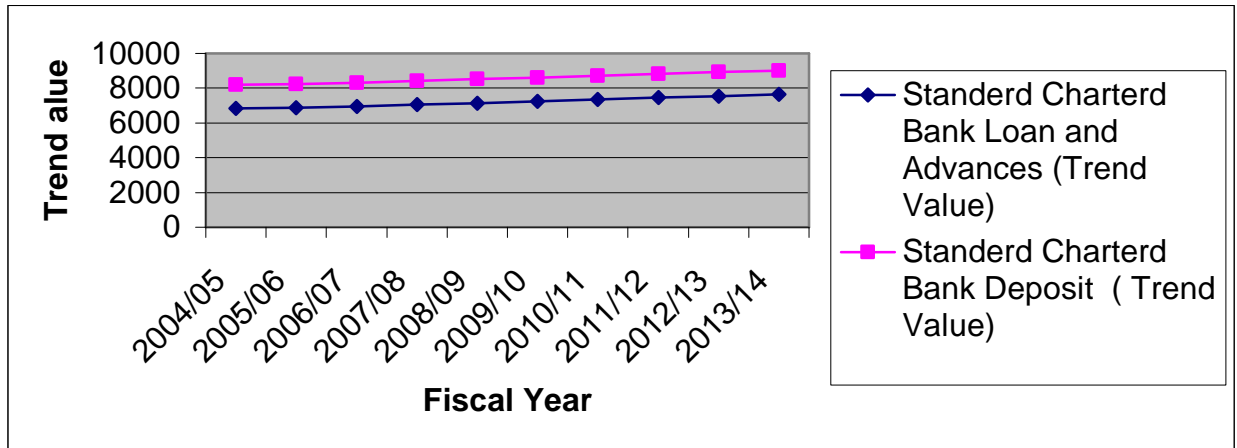
The trend analysis of loan and advances and total deposit ratio of Nabil Bank and Standard Chartered Bank shows the trend values of five years. Over the study period the analysis makes projection for the next five years. The following table describes the trend values of total deposit ratio of the Nabil bank Limited and Standard Chartered Bank Limited.

**Table 4.22**  
**Trend Analysis of Total Deposit Ratio of**  
**Nabil Bank Ltd and Standard Chartered Bank Ltd**

Fiscal Year (Mid Value)	Nabil Bank (Trend Value)	Standard Chartered Bank ( Trend Value)
2004/05	4583.90	8212.09
2005/06	4584.63	8213.09
2006/07	4586.37	8214.089
2007/08	4586.12	8215.10
2008/09	4586.85	8216.16
2009/10	4587.59	8217.11
2010/11	4588.33	8218.11
20011/12	4589.07	8219.12
2012/13	4589.80	8220.12
2013/14	4590.54	8221.13

Source: Appendix-13

**Figure 4.8**  
**Trend Analysis of Loan and Advances and Total Deposit of**  
**Standard Chartered Bank Ltd**



The above table shows that the total investment and total deposit of Nabil Bank and Standard Chartered Bank is in increasing trend. Nabil Bank has the highest trend value of 4590.54 in the year 2015/16 and the Standard Chartered Bank has the highest trend value of 8221.13 in the year 2015/16. The increasing trend of investment and total deposit ratio of both banks shows the good performance of the selected bank on investing the deposit in profit earning sectors.

#### 4.10 Major Findings of the Study

From the analysis of the data collected from various sources following findings have been made.

1. Current ratio of both banks showed slightly fluctuating trend. Both of the banks could not maintain the conventional standard of 2:1. However, the average of the ratios appeared higher in Nabil Bank, which signifies that Nabil Bank is more capable of meeting immediate liabilities in contrast to Standard Chartered Bank. The ratio was found more consistent in Nabil Bank. Hypothesis test showed that the mean ratio of two banks did not differ significantly.

2. Liquid fund to current liability ratio of Nabil Bank and Standard Chartered Bank in fluctuating trend. After analyzing the ratio we can conclude that both the sample banks do not differ significant with respect to this ratio.
3. Liquid fund to total asset deposit ratio of banks. Nabil Bank and Standard Chartered Bank are in fluctuating trend. Mean ratio appeared marginally greater in Standard Chartered Bank, which means that Standard Chartered Bank has maintained loss consistency in Standard Chartered Bank. Hypothesis test showed that the mean ratio of two banks does not differ significantly.
4. Total assets to total liability ratio of Standard Chartered Bank is highest than that of Nabil Bank. The highest ratio of Nabil Bank and Standard Chartered Bank is 1.0632 and 1.0635 in year 2008/09 respectively. The mean ratio of Nabil Bank is greater than Standard Chartered Bank. The ratio remained more consistency in Standard Chartered Bank. Hypothesis test showed that the man ratio of the sample banks does not differ significantly.
5. Loans and advances to total deposit ratio of Nabil bank and Standard Chartered Bank is in fluctuating trend. The mean ratio of Standard Chartered Bank is higher than that of Nabil Bank. The overall performance of Standard Chartered Bank seems the best with the higher mean ratio.
6. Loans and Advances and investment to total deposit ratio of appeared significantly higher in Nabil Bank. It indicates the better utilization of loans and advances and investment in Nabil Bank than Standard Chartered Bank. The ratio remained more uniform in Nabil Bank. As depicted by higher loans and advances and investment to total deposit in Nabil Bank. Nabil Bank seems more successful to utilize the despite fund in investment.
7. The ratio of loans and advances to shareholders equity has gained the significant importance in measuring the capital fund and contribution in loans and advances. The analysis explain that the ratio of Standard Chartered Bank the highest than Nabil Bank.
8. Interest income to total income ratio of Standard Chartered Bank is greater than Nabil Bank over the year 2008/09 to 2009/10 which reveals the

Standard Bank invested the fund rose from more successfully to earn the interest.

9. Interest expenses to total deposit ratio, or an average lower in Nabil Bank than Standard Chartered Bank which reveals that Nabil Bank, invested the fund remove from more successfully to earn the interest from total deposit.
10. Interest income to interest expenses ratio of Nabil Bank is lower than that of Standard Chartered Bank which signifies that Nabil Bank invested the find remove from more successfully to earn to interest rather than paying the interest for debt.
11. Growth ratio of total deposit of Nabil Bank is higher that of Standard Chartered Bank by analysis over the study period, so it seems better performance of Standard Chartered Bank in total deposit.
12. Growth ratio of loans and advances of Standard Chartered Bank is higher that of Nabil Bank by analysis over the study period. It has a significant growth of Standard Chartered Bank than Nabil Bank and explains its aggressiveness.
13. Growth ratio of total investment of Standard Chartered Bank is higher than that of Nabil Bank. The highest value increase in total investment of Standard Chartered Bank explains it aggressiveness.
14. The growth ratio of net profit of Nabil Bank is in increasing trend. But the growth ratio of net profit of Standard Chartered Bank is in decreasing trend. So the increasing trend of net profit Nabil Bank explains its aggressiveness.
15. Correlation coefficient between total deposit loans and advances were found positively correlated of Nabil Bank and Standard Chartered Bank. Standard Chartered Bank has high degree of positive correlation shows the significant relation between net deposit and loans and advances.
16. Correlation coefficient between investment and loans advances were found positively correlated of Nabil Bank and Standard Chartered Bank. Standard Chartered Bank has high degree positive correlation shows the significant relation between net deposit and loans and advances.

17. Correlation coefficient between investment and loans and advances were found positively correlated in Standard Chartered Bank and negatively correlated in Nabil Bank. The high degree positively correlation coefficient of Standard Chartered Bank shows significant relationship between investment and loans and advance. This shows that the bank has succeeded in contribution of significant proportion both investment and loans and advances. But the negative correlation coefficient of Nabil Bank shows poor relationship between those two variables. It shows that the bank could not succeed in contribution of significant proportion of total investment and loans and advances.
18. Correlation coefficient between interest income and net profit of Nabil Bank shows high degree of correlation. But Standard Chartered Bank has the negative correlation coefficient between these two variables. Due to high degree of positive correlation Nabil Bank shows significant relationship between interest income and net profit.
19. Trend analysis of loans and advances and total deposit ratio of Standard Chartered Bank is highly increasing trend. Then Nabil Bank shows increasing trend. The analysis concludes the good performance of Standard Chartered Bank in deposit utilization in relation to loans and advances.
20. Trend analysis of investment and total deposit of Standard Chartered Bank is highly increasing trend then Nabil Bank. The analysis concludes the good performance of Standard Chartered Bank in deposit utilization in relation to investment.

## CHAPTER-V

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

Investment policy is the essence of commercial banking; consequently the formulation and implementation of lending policies are among the most important responsibilities of directors and management. Well conceived lending policies and careful lending practices are essential if a bank is to perform its credit. Loan management effects on the company's profitability and liquidity so it is one of the crucial decisions for the commercial banks.

The need of financial resources in a developing country like Nepal is essential for the economic development of country. All the sectors from industrial and commercial to agriculture and infrastructure are in need of finding. Although the growths of industrial loan has not been encouraged in the recent years. There is sizable growth in the commercial and other short term credits. Commercial banks are focusing loans on consumer loans like housing, vehicle, education loan etc. it is encouraging to explore new sector for loan management but it should also be considered that industrial loan should be given prime importance as the economy largely depends on this sector.

Lending policies are not systematic and no clear cut vision of policy is available on lending aspect. In Nepal it has been found that on approval and lending decisions are made flexible to favor to personnel networks also. A new customer finds that loan providing process being very complicated and sometimes the documents submitted for loan sanctioning being fraudulent and for formality purpose only. In this perspective the study deals with the issues: a) how effectively is the investment policy of selected sample bank is being followed? b) Whether the trend of the deposit and loans of the commercial banks are satisfactory? c) How the sample banks measures the liquidity position and impact of deposit on liquidity? d) What is the portion of lending between



consumer and industrial loan? and e) How the bank measure the lending performance in quality, efficiency and contribution of profitability?

The main objective of the study is to analyze the loan management policy adopted by the sample banks. However, the specific objectives are: a) to analyze the effectiveness of investment policy of the selected sample banks. b) to measure the performance in quality, efficiency and contribution of profitability. c) to examine the trend of deposit and loans of commercial bank. d) to study the liquidity position, the impact of deposit on liquidity and its effect on lending performance and e) to provide suggestion and recommendation for the proper loan system.

Sampling may be defined as the selection of part of the population on the basis of which a judgment or inference about the universe is made. Here only 2 sample joint venture commercial banks have been taken out of 32 commercial banks. All the commercial banks in Nepal are the population of the study. The sample taken from the commercial banks are Nabil Bank and Standard Chartered Bank.

The research is based on secondary source of data. For research purpose published financial statement (i.e. Annual report) or concerned banks were collected. Similarly, financial statement of selected commercial banks and various markets related information were collected. The factors derived from previous research findings on related area are to support loan management. In addition, an answer on certain queries made to staffs of concerned for clarification personal requires and discussions were also being conducted for clarification and verification of collected data and for recommendation. The annual reports of the concerned banks are the major sources of the data for the study.

To meet the objectives of the study, the sources of secondary data of commercial bank are analyzed by using financial tools such as ratio analysis. Simple descriptive analysis tools such as frequency, mean, standard deviation are used.

The ratio analysis involves comparison for a useful interpretation of financial statements. The quantities judgment regarding loan management of a firm can be done with the help of ratio analysis. For the analysis of the data the financial and statistical tools relevant to the topic are used. In this study, the financial tools ratio analysis viz. asset management ratios and profitability ratios are calculated to find out the lending strength of these commercial banks. Also growth ratios, statistical tools like mean correlation coefficient and trend analysis conducted for analysis and interpretation of the data. The data used in this research is mainly secondary nature and extracted from the annual reports of the concerned banks and website of Nepal Stock Exchange. The financial statements of five years (2007/08 to 2011/12) were selected for the study purpose.

Investment is one of the most important functions of a commercial bank and the composition of loans and advances directly affects the performance and profitability of the bank. There is intense competition in banking business with limited market and less investment opportunities as available. A study on the liquidity position loans and advances, profitability, deposit position of Nabil Bank and Standard Chartered Bank is analyzed and the banks lending strength lending efficiency and its contribution in total profitability has been measured.

## **5.2 Conclusion**

The mean of current ratio of those two banks over the five year period is 1.0694 and 1.222 respectively and it is consistent over the years. Although the current ratio of 2:1 is considered as standard, acceptability of the value 1:1 or above would be considered acceptable. Therefore the liquidity position of Nabil Bank and Standard Chartered Bank is normal. Mean of liquid fund to current liability ratio of these two banks over the five years period is 1.11604 and 0.1111 respectively and it is less consistent analyzing this ratio we can conclude that both the sample banks do not differ significant with this ratio.

Mean of liquid fund to total deposit ratio of Nabil Bank and Standard Chartered Bank is 0.1209 and 0.12006 respectively and it is less consistent. The ratio measure how well the deposits are being mobilized. The ratios of these two banks are in fluctuating trend. Here, none of the ratios is above 1, which refers that some deposit is idle and there is not maximum utilization of the funds. The mean ratio of Nabil Bank and Standard Chartered Bank is 1.0626 and 1.0483 respectively and it is consistent over the years after analyzing the assets to total liabilities it can be conclude that these two banks are not utilizing their fund efficiently and affectively to extent their liability permits them. Mean ratio of loans and advances to total deposit Nabil Bank and Standard Chartered Bank is 0.7169 and 0.7464 respectively and it is less consistent. The ratio measures how well the deposit are being mobilized and in the income generating sector. The ratios are in fluctuating trend. Her one of the ratios is above1. Which refers that some deposit is idle and then it is not maximum utilization of the funds? But in the year 2006/07 the ratio of Nabil Bank is nearly equal to 1, which refers that there is very less deposit which is remained idle in utilization of funds.

Means ratio of loans and advances and investment to total deposit ratio of Nabil Bank and Standard Chartered Bank is 0.9349 and 0.8780 respectively and is less consistent. This ratio measures how well the deposit are being mobilized and in the income generating sector. There is fluctuating trend of ratio. Here the ratio of Nabil Bank has above 1 in year 2009/10 which refers that deposit is not idle and there is maximum utilization of the funds in this year. Loans and advances to shareholders equity ratio of Nabil Bank and Standard Chartered Bank ever the five year period has mean ratio of 10.3947 and 11.9920 respectively and is less consistent. The ratio shows how well the investment made by the investor. It also measures the success of converting liability into assets and measures size of the business. The higher ratio of Standard Chartered Bank in the year 2007/08, 2008/09 and 2010/11 shows that the bank has been successful in generating proportionately higher volume of loans and advances in the year 2007/08 and 2009/10.

Interest income to total income ratio of Nabil Bank over the study period is decreasing trend but the ratio of Standard Chartered Bank is in increasing trend. Lower ratio of Nabil Bank shows low contribution made by lending and investment and high contribution by other fee based activities in total income. But higher ratio of Standard Chartered Bank shows high contribution made by lending and investment and low contribution by other fee based activities in total income. Interest expenses to total deposit ratio of the banks over the study period are in decreasing trend with consistent values. This indicates the decrease in cost of fund. Interest income to interest expenses ratio of Nabil Bank and Standard Chartered Bank over the study period are in decreasing trend. This indicates the decrease in profit of the banks. The growth ratio Nabil Bank and total deposit of Standard Chartered Bank is in increasing trend. The growth ratio of loans and advances during the study period is found to be increasing trend in every year. The growth ratio of total investment of during the study period is found fluctuating. The growth ratio of Net profit of Nabil Bank is increasing trend but the ratio of Standard Chartered Bank is in fluctuating trend.

The correlation analysis shows that the correlation coefficient 'r' between deposit and loans and advances of Standard Chartered Bank is high degree of positive correlation but Nabil Bank has low degree of positive correlation. The correlation of Standard Chartered bank has significant relationship between deposit and loans and advances and the bank is mobilizing he deposit as loans and advance successfully. Similarly the analysis shows high degree positive correlation of Standard Chartered Bank between investments and loans and advances. But Nabil Bank has negative correlation coefficient between total income and loans and advances. The correlation coefficient between total income and loans and advances of Standard Chartered Bank is high degree of positive correlation shows good fund mobilization and the there is how degree of positive correlation of Standard Chartered Bank between income and loans and advances the correlation coefficient between total income and loans and advances of Standard Chartered Bank shows positive correlation. So, the value or 'r' is

significant. But the correlation coefficient between total income and loans and advances of Standard Chartered Bank show negative correlation. From trend analysis of deposit utilization and its projection for next 5 years, Nabil Bank and Standard Chartered Bank have the increasing trend in loans and advances to total deposit and also increasing trend in total investment to total deposit.

The overall performance of Standard Chartered Bank is satisfactory then Nabil Bank. The liquidity position of Standard Chartered Bank is better than that of Nabil Bank. As loans and advances of Standard Chartered Bank is increasing trend deposit is also increasing trend during the study period. There is increasing trend in profit of Standard Chartered Bank shows that improvement in performance and success of the firm. Purpose wise loan classification show that the Standard Chartered Bank and Nabil Bank banks have given priority to industrial and commercial sector lending, as well as priority and deprived sector lending. Standard Chartered Bank has higher lending portion in these sectors than Nabil Bank. From the selected bank Standard Chartered Bank has performed well in increasing growth ratio of deposit, loans and advances, investment and profit.

Standard Chartered Bank has good lending procedure, preliminary screening is done of all the loan application, credit appraisal and financial position of the business and cash flows of the proposal is given high importance, which is essential criterion for loan approval. There is proper control mechanism like delegation of authority, follow up visits and books of accounts inspection of the client, which results in good performance of the bank. The banks follow Nepal Rastya Bank guidelines of loans classification and provisioning which makes strong financial position of the comparatively study of holding high volume of non-performing assets. After comparatively study of Standard Chartered Bank and Nabil Bank banking performance, it can be concluded that Standard Chartered Bank has better performance than that of Nabil Bank.

### **5.3 Recommendations**

Based on above findings and conclusion the following recommendations have been made.

1. As the liquidity position of these two banks is found to be high, they are recommended to look upon the new area of lending and investment. The rural economy has always been realizing the credit needs: the dominance of non-organized moneylender. In this area has been prevailing. To compromise between the liquidity and credit need of rural economy, these banks are highly fund in business and the same time contributes to the national economy also.
2. The ratio of loans and advances and investment to total deposit of Standard Chartered Bank is the lowest and this has result in the highest ratio of interest expenses to total deposit. At the same time total deposit to total fund utilized is below the average and there is high propensity of growth in deposit as compare to loans and advances. Hence these banks suggested reducing the interest rate. Consequently the volume of interest bearing deposit in its deposit mix reduces: increase the gap between consequent assets the liquidity arising from high prosperity of deposit.
3. Nabil's contribution in loans and advances is the lowest and this has low degree of variation and low growth rate as compare to Nabil Bank and Standard Chartered Bank since the entire economy is largely dependent on the proper execution of lending performance of all the banks in long run due to its paradox how level of lending constitutes the low level of lending constitutes the low level of investment, resulting in low level of productive and employment generation and this causes slack in economy .this slackness in economy adversely effects the funding as well as non-funding activities of banking business. Thus, especially Nabil Bank is recommended to give more priority on productive and priority sector loan.
4. As examined by interest income to interest expenses ratio, the interest gap in Standard Chartered Bank and Nabil Bank is highly unfavorable for the

national development since this gap as not existed due to credit creation power of these banks. As the total loans and advances to total deposit ratio is not even 1:1, this gap has its reason with high interest charged and low interest offering. This ratio has clearly indication that the bank has not followed that the NRB directives to maintain overall 5% gap in interest charged and interest offered. Thus bank is recommended to lower this gap by charging low interest in lending lowering this gap results in high volume of loans and advances and helps in increasing the sustainable lending practice.

5. The high volume of liquidity shows that the high degree of lending strength has been prevailing in all of these banks. The lack of reliable lending opportunities and fear of losing the principle in rural sector has been keeping these banks to less orient toward the lending function. Hence the government should take appropriate action to initiate these directives does not create long term healthy lending practices unless the commercial banks are not self motivated to flow credit in this sector, “But in view of the risk element in lending, the banker still prefers to have a negative outlook in handling proposals. This attitude requires to be changed among the bankers and any proposal coming to them should be processed to conform to banking norms so that it can be sanctioned for alignment for production or approved social objectives.

## BIBLIOGRAPHY

### **Books:**

- Bhattaria, Pramod. (2061). *The Nepalese Financial System*, First Edition. Kathmandu: Asmita Books Publishers & Distributors.
- Charles, Woelfel J. (1999). *Encyclopedia of Banking and Finance*; Singapore: Irwin Publications.
- Joshi, Puspha Raj (2002.). *Research Methodology; Second edition*. Kathmandu: Buddha Academic Publishers and Distributors Pvt. Ltd..
- Karki, Rewat Bahadur (2010). *Financial sector: challenges and some solutions*; NRB samachar, NRB.
- Khan, M Y & Jain, P K(1999). *Financial Management: Text and Problems*; 3rd Edition. New Delhi: Tata McGraw-Hill Publishing Company Limited.
- Kothari, C.R.(1990). *Research Methodology: Methods and Techniques*; 2<sup>nd</sup> edition. New Delhi: Vishwa Prakashan.
- Kshetry, Deependra B (2008). *Banking Industry & Economic Development: In Nepalese context*; Arthik Mimamsa, Half yearly booklet; Nepal Rastra Bank.
- Lynch, M. Richard & Williamson W. Robert(1989). *Accounting for management*; 2<sup>nd</sup> edition. New Delhi: Prentice Hall of India.
- Michael, Baye R. & Dennis W. Jansen (1996). *Money, Banking and Financial Markets: an economic approach*. New Delhi: AITBS. Publishers and Distributors.
- Rose, Peter (1999). *Commercial Bank Management*; International edition. Irwin/MC Graw Hill.
- Sharma, Bhaskar (2011). *Banking the future in competition*; Business age.
- Shrestha, Shiba Raj (2009). *Indicators to measure financial analysis of commercial banks*; Mirmire, NRB booklet.
- Shrestha, Shiba Raj (2010). *Portfolio management in commercial banks: theory & practice*; Nepal Bank Patrika.

### **Journals:**

- Nepal Government, (2012). Ministry of Finance. *Economic Survey*, Kathmandu



- Karki, Rewat B. (2010). *Nepal's Financial Sector: Challenges and Some Solutions*; NRB Samachar, Nepal Rastra Bank
- Nepal Rastra Bank, (2064). *52<sup>nd</sup> Anniversary; Special Publication*; Baisakh 14,
- Nepal Rastra Bank (2069). *Banking and Financial Statistics*; Research Division, Shrawan.
- Nepal Rastra Bank. (2011). *Macro Economic Indicators of Nepal*; Research Department Statistics Division; December.
- Securities Board Nepal (2007). *Annual Report*; Fiscal year 2007/2008.
- Securities Board Nepal (2008). *Annual Report*; Fiscal year 2008/2009.
- Securities Board Nepal (2009). *Annual Report*; Fiscal year 2009/2010.
- Securities Board Nepal (2010). *Annual Report*; Fiscal year 2010/2011.
- Securities Board Nepal (2011). *Annual Report*; Fiscal year 2011/2012.

**Master Level unpublished Thesis:**

- Dhungana. Krishna. (2006). *A study on Joint Venture Banks' Profitability*. An Unpublished Thesis. Shankar Dev Campus, T.U.
- Dhungana, P. (2006). *A study of Joint Venture Banks' Profitability*; an unpublished Master's Degree thesis, Central Department of Management; T.U.
- Kafle. Anil. (2012). *Non-performing Loans of Nepalese commercial banks*. An Unpublished Master Thesis, Central Department of Management, TU
- Karki. Shyam. (2011). *A Study of Investment Policy in Nepal Arab Bank Limited*. An Unpublished Master Thesis, Shankar Dev Campus, T.U.
- Khadka, Udaya. (2008). *A study in Investment Policy of Nepal Arab Bank Ltd in Comparison to Nepal NB Bank Limited*". An Unpublished Thesis, Shankar Dev Campus, T.U.
- Khadka, R. R (2008). *A study on investment policy of NABIL in comparison to other joint venture banks of Nepal*; An unpublished Master's Degree thesis, Shankar Dev Campus; T.U.
- Mahat, Keshav (2006). *An assessment of profitability of joint-venture banks in Nepal*; An unpublished Masters' Degree Thesis; Central Department of Management, T.U., Kathmandu.

Shrestha. Prem Krishna. (2011). *Profitability Analysis of Standard Chartered Bank Limited and Nabil Bank Limited*. An Unpublished Master Thesis, Central Department of Management, T.U.

Shrestha. Suren.. (2011). *Cost volume and profit analysis of commercial banks: A case study of HBL*. An Unpublished Master Thesis, Shanker Dev Campus, T.U.

## **ANNEXES**

### **Annex 1**

#### **Analysis of Current Ratio**

Year	Liquid fund		Current liabilities		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	3334.59	7034.51	3204.27	6945.64	1.04061	1.0128
2008/09	5049.85	9636.94	4874.79	9358.28	1.0359	1.0298
2009/10	6607.18	10727.83	6063.87	10441.04	1.0895	1.0275
2010/11	8052.20	11345.52	7420.73	1123.70	1.0761	1.0099
2011/12	9608.56	13758.05	8928.24	13586.40	1.0654	1.1438

### **Annex 2**

#### **Analysis of Liquid fund to Current Liability Ratio**

Year	Liquid fund		Current liabilities		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	278.60	645.75	3204.27	6945.64	0.0869	0.0930
2008/09	834.99	1025.82	4874.79	9358.28	0.1713	0.1096
2009/10	692.76	759.31	6063.87	10441.04	0.1142	0.1685
2010/11	1139.57	889.51	7420.73	11233.70	0.1536	0.0792
2011/12	631.81	1436.48	8928.24	13586.40	0.0708	0.1057

### Annex 3

#### Analysis of Liquid Fund to Total Deposit Ratio

Year	Liquid fund		Current liabilities		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	278.60	645.75	3204.27	6467.19	0.0911	0.0998
2008/09	35.79	1025.82	4874.79	8600.81	0.1825	0.1193
2009/10	692.76	759.31	6063.87	954.47	0.1267	0.1849
2010/11	1139.59	889.51	7420.73	10580.65	0.1702	0.841
2011/12	631.21	1436.48	8928.24	12807.37	0.0783	0.1122

### Annex 4

#### Analysis of Total Assets to Total Liabilities Ratio

Year	Liquid fund		Current liabilities		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	3334.59	7347.23	3208.86	6950.62	1.0632	1.0571
2008/09	5049.85	9962.69	4883.18	9367.57	1.0654	1.0635
2009/10	6607.18	11102.24	6216.27	10475.74	1.0628	1.0598
2010/11	8052.20	11932.60	7579.37	11248.69	1.0623	1.0607
2011/12	9608.56	14257.97	9068.24	13601.39	1.0595	1.0483

### Annex 5

#### Analysis of Loans and Advances to Total Deposit Ratio

Year	Loan and Advances		Total Deposit		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	2270.18	461710	3057.43	6467.43	0.7425	0.7139
2008/09	3005.76	7358.84	4574.51	8600.81	0.6571	0.8556
2009/10	3948.48	7632.42	5466.61	9514.47	0.7223	0.8022
2010/11	4908.46	7247.98	6694.95	10580.65	0.7331	0.6850
2011/12	5884.12	8648.74	8063.90	1287.37	0.7297	0.6753

### Annex 6

#### Analysis of Loans and Advances and Investment to Total Deposit

Year	Loan and Advances and Investment		Total Deposit		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	2527.79	5060.65	3057.43	6467.19	0.8267	0.7825
2008/09	3828.76	8034.92	4574.51	8600.81	0.8369	0.9342
2009/10	5487.38	8602.65	5466.61	9514.47	1.0038	0.9042
2010/11	6507.81	9378.49	6694.95	10580.65	0.9720	0.8864
2011/12	8350.55	11309.49	8063.90	12807.37	1.0355	0.8830

### Annex 7

#### Analysis of Loans and Advances to Share holders Equity

Year	Loan and Advances		Shareholders Equity		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	2270.18	461710	202.85	396.59	11.1914	11.6419
2008/09	3005.76	7358.84	319.40	595.12	9.1406	12.3653
2009/10	3948.48	7632.42	390.91	626.49	10.1007	12.1828
2010/11	4908.46	7247.98	472.83	683.92	10.3810	10.5977
2011/12	5884.12	8648.74	540.33	656.57	10.8898	13.1726

### Annex 8

#### Analysis of Interest Income to Total Income Ratio

Year	Interest Income		Total Income		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	267.44	609.27	41.27	139.53	6.48	4.37
2008/09	385.02	810.05	69.70	198.75	5.52	4.07
2009/10	443.82	850.53	85.33	65.78	5.20	12.93
2010/11	520.17	1013.71	74.17	71.51	5.52	14.17
2011/12	657.25	1095.50	143.57	265.0	4.58	41.34

### Annex 9

#### Analysis of Interest Expenses to Total Deposit Ratio

Year	Interest Expenses		Total Deposit Ratio		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	177.89	414.99	3057.43	6467.19	0.0582	0.6811
2008/09	236.14	515.84	4574.51	8600.81	0.0516	0.6368
2009/10	257.05	550.06	5466.61	9514.47	0.04702	0.6467
2010/11	306.41	594.58	6694.95	10580.65	0.0458	0.5865
2011/12	314.44	620.94	8063.90	12807.37	0.0389	0.5668

### Annex 10

#### Analysis of Interest Income to Interest Expenses Ratio

Year	Interest Income		Interest Expenses		Ratio	
	NABIL	SCBNL	NABIL	SCBNL	NABIL	SCBNL
2007/08	267.44	609.27	177.89	414.99	0.6651	0.6811
2008/09	385.02	810.05	236.14	515.84	0.6193	0.6368
2009/10	443.82	850.53	257.05	550.06	0.5792	0.6467
2010/11	520.17	1013.71	306.41	594.58	0.5890	0.5865
2011/12	657.25	1095.50	314.44	620.94	0.4784	0.5668

## Annex 11

### Nabil Bank Limited

#### Correlation Coefficient between Deposit and Loans and Advances

Let, X be Deposit and Y be loans and advances respectively.

Year	X	Y	x=X- $\bar{X}$	y =Y- $\bar{Y}$	x <sup>2</sup>	y <sup>2</sup>	xy
2007/08	4574.5	2959.44	-2405.03	-2104.39	5784169.30	4428457.27	5061121.08
2008/09	5466.61	3948.47	-1512.92	-1115.36	2288926.3	1244027.93	1687,450.45
2009/10	6694.96	4908.46	-284.57	-155.37	80980.08	24139.84	44213.64
2010/11	8063.9	5884.12	1084.37	820.29	1175858.30	672875.68	889497.87
2011/12	10097.69	7618.67	3118.16	2554.84	9722921.79	652707.43	7966399.89
N=5	X= 34897.66	Y= 25319.16			x <sup>2</sup> = 19052856.37	y <sup>2</sup> = 7022208.15	xy= 15648682.74

$$\begin{aligned} \text{Mean (X)} &= \frac{\sum X}{N} \\ &= \frac{34897.66}{5} \\ &= 6979.53 \end{aligned}$$

$$\begin{aligned} \text{Mean (Y)} &= \frac{\sum Y}{N} \\ &= \frac{25319.16}{5} \\ &= 5063.83 \end{aligned}$$

$$\begin{aligned} \text{Correlation coeff.(r)} &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{1610247.36}{\sqrt{1905286.37} \sqrt{12896698.13}} \\ &= \frac{1610247.36}{4364.95 \times 3591.19} \\ &= 0.1027 \end{aligned}$$



$$\begin{aligned}
 P.Er &= 0.6745 \times \frac{1-r^2}{5} \\
 &= 0.6745 \times \frac{1-(0.1027)^2}{2.24} \\
 &= 0.2985
 \end{aligned}$$

### Correlation Coefficient between Total Investment and Loans and Advances

Let, X be Total investment and Y be loans and Advances respectively.

Year	X	Y	x=X- $\bar{X}$	y=Y- $\bar{Y}$	x <sup>2</sup>	y <sup>2</sup>	xy
2007/08	9017	2959.44	5611.28	-2104.39	31486463.24	4428457.27	-11808321.52
2008/09	1693.06	3948.47	-1712.66	-1115.36	2933204.28	1244027.93	1910232.46
2009/10	1653.97	4908.46	-1751.75	-155.37	3068628.06	24139.84	272169.40
2010/11	2535.65	5884.12	-870.07	820.29	757021.80	672875.68	-713709.72
2011/12	2128.93	7618.67	-1276.79	2554.84	1630192.70	6527207.43	-3261994.16
N=5	X= 17028.61	Y= 25319.16			x= 39875510.07	y= 1228153.49	xy= -13600984.84

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

$$\begin{aligned}
 &= \frac{17028.61}{5} \\
 &= 3405.72
 \end{aligned}$$

$$\text{Mean (Y)} = \frac{\sum Y}{N}$$

$$\begin{aligned}
 &= \frac{25319.16}{5} \\
 &= 5063.83
 \end{aligned}$$

$$\text{Correlation coeff.}(r) = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{-13600984.84}{\sqrt{1905286.37} \sqrt{12896698.13}}$$

$$= \frac{1610247.36}{631.706 \times 3591.19}$$

$$= -0.6144$$

$$P.Er = 0.6745 \times \frac{1-r^2}{5}$$

$$= 0.6745 \times \frac{1 - (-0.6144)^2}{2.24}$$

$$= 0.1163$$

### Correlation Coefficient between Total income and Loans and Advances

Let, X be total income and Y be Loans and Advances respectively

Year	X	Y	x=X- $\bar{X}$	y=Y- $\bar{Y}$	x <sup>2</sup>	y <sup>2</sup>	xy
2007/08	4655.1	2959.44	-1916.32	-2104.39	3672282.34	4428457.27	4032684.64
2008/09	5409	3947.47	-1162.42	-1115.36	47707.30	1244027.93	1296516.68
2009/10	6353	4908.46	-218.42	-155.37	1637324.98	24139.84	33935.92
2010/11	7851	5884.12	1279.58	820.29	4070629.06	672875.68	1049626.68
2011/12	8589	7618.67	2017.58	2554.84		6527207.43	5154594.09
N=5	X= 32857.1	Y= 			x= 10779163.90	y= 12896708.13	xy= 11567358.07

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

$$= \frac{32857.1}{5}$$

$$= 6571.42$$

$$\text{Mean (Y)} = \frac{\bar{Y}}{N}$$

$$= \frac{25319.16}{5}$$

$$= 5063.83$$

$$\begin{aligned} \text{Correlation coeff.}(r) &= \frac{xy}{\sqrt{x^2} \sqrt{y^2}} = \frac{11567358.07}{\sqrt{10779163.9} \sqrt{12896698.13}} \\ &= \frac{11567358.07}{3283.16 \times 3591.19} \\ &= 0.9810 \end{aligned}$$

$$\begin{aligned} \text{P.Er} &= 0.6745 \times \frac{1-r^2}{5} \\ &= 0.6745 \times \frac{1-(0.9810)^2}{2.24} \\ &= 0.01135 \end{aligned}$$

**Correlation Coefficient between Interest Income and Net Profit**

Let X be the Interest Income and Y be the Net Profit

Year	X	Y	x=X- $\bar{X}$	y=Y- $\bar{Y}$	x <sup>2</sup>	y <sup>2</sup>	xy
2007/08	267.44	697.06	-187.3	-296.50	35081.29	87912.25	55534.45
2008/09	385.02	853.47	-69.72	-140.09	4860.88	19625.21	9767.07
2009/10	443.82	273.30	-10.92	-720.26	119.25	518774.47	7865.24
2010/11	520.17	1436.00	65.43	442.44	4281.08	195753.15	28948.85
2011/12	657.25	1708.00	202.51	714.44	41010.30	510424.51	144681.24
N=5	X= 2273.7	Y= 4967.83			x= 85352.78	y= 1332503.4 5	xy= 246796.18

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

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

$$\begin{aligned}
 & N \\
 & = \frac{2273.7}{5} \\
 & = 454.74
 \end{aligned}$$

$$\begin{aligned}
 & N \\
 & = \frac{4967.83}{5} \\
 & = 993.56
 \end{aligned}$$

$$\begin{aligned}
 \text{Correlation coeff.}(r) &= \frac{xy}{\sqrt{x^2} \sqrt{y^2}} = \frac{246796.18}{\sqrt{85352.78} \sqrt{1332503.45}} \\
 &= \frac{246796.18}{292.15 \times 1154.34} \\
 &= 0.7318
 \end{aligned}$$

$$\begin{aligned}
 \text{P.Er} &= 0.6745 \times \frac{1-r^2}{5} \\
 &= 0.6745 \times \frac{1-(0.7318)^2}{2.24} \\
 &= 0.1401
 \end{aligned}$$

## Annex 12

### Standard Chartered Bank Limited

#### Correlation Coefficient between Deposit and Loans and Advances

Let, X be Deposit and Y be Loans and Advances respectively.

Year	X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	$x^2$	$y^2$	xy
2007/08	8600.81	7358.84	-2124.96	-1176.34	4515455.00	1383775.80	2499675.45
2008/09	9514.96	8083.97	-1210.81	-451.21	1466060.86	203590.46	546329.58
2009/10	10580.65	7961.51	-145.12	-573.67	21059.81	329097.27	83250.99
2010/11	12807.37	9644.69	2081.6	1109.51	433058.56	1231012.44	2309556.02
2011/12	12125.57	9626.91	1399.8	1091.73	1959440.04	1191874.39	1528203.65
N=5	X= 53628.86	Y= 42675.92			$x^2$ = 1229285.32	$y^2$ = 4339350.34	xy= 6967241.28

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

$$= \frac{53628.86}{5}$$

$$= 10725.77$$

$$\text{Mean (Y)} = \frac{\sum Y}{N}$$

$$= \frac{42675.92}{5}$$

$$= 8535.18$$

$$\text{Correlation coeff. (r)} = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{6967241.28}{\sqrt{1229285.32} \sqrt{4339350.34}}$$

$$= \frac{6967241.28}{3506.60 \times 2083.11}$$

$$= 0.9538$$

$$\text{P.Er} = 0.6745 \times \frac{1 - r^2}{5}$$

$$= \frac{0.6745 \times 1 - (0.9538)^2}{2.24}$$

$$= 0.2744$$

### Correlation coefficient between Total Investment and Loans and Advances

Let, X be Total investment and Y be Loans and Advances respectively.

Year	X	Y	x=X- $\bar{X}$	y=Y- $\bar{Y}$	x <sup>2</sup>	y <sup>2</sup>	xy
2007/08	691.08	7358.84	-1104.82	-1176.34	1220627.23	1383775.80	1299643.96
2008/09	1008.64	8083.97	-787.26	-451.21	619778.31	203590.46	355219.58
2009/10	2168.16	7961.51	373.02	-573.67	139143.92	329097.24	-213990.38
2010/11	2699.16	9644.69	903.06	1109.51	815878.63	1231012.44	1002176.00
2011/12	2411.72	9626.91	615.82	1091.73	379234.27	1191874.39	672309.17
N=5	X= 8979.52	Y= 42675.92			x <sup>2</sup> = 3174662.34	y <sup>2</sup> = 4339350.34	xy= 3115358.31

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

$$= \frac{8979.52}{5}$$

$$= 1795.90$$

$$\text{Mean (Y)} = \frac{\sum Y}{N}$$

$$= \frac{42675.92}{5}$$

$$= 8535.18$$

$$\text{Correlation coeff. (r)} = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{3115358.31}{\sqrt{3174662.34 \times 4339350.34}}$$

$$= \frac{3115358.31}{1781.75 \times 2083.11}$$

$$= 0.8394$$

$$\begin{aligned}
 P.Er &= 0.6745 \times \frac{1 - r^2}{5} \\
 &= 0.6745 \times \frac{1 - (0.8394)^2}{2.24} \\
 &= 0.0891
 \end{aligned}$$

### Correlation Coefficient between Total Income and Loans and Advances

Let, X be Total income and Y Loan and advances respectively.

Year	X	Y	x=X- $\bar{X}$	y=Y- $\bar{Y}$	x <sup>2</sup>	y <sup>2</sup>	xy
2007/08	1080	7358.84	-82.19	-1176.34	6755.20	1383775.80	96683.38
2008/09	1076.81	8083.97	-85.38	-451.21	7289.74	203590.46	38524.31
2009/10	1243.83	7961.51	81.64	-573.67	6665.09	329097.27	-46834.42
2010/11	1327.19	9644.69	165	1109.51	27225.00	1231012.44	183069.15
2011/12	1083.16	9626.91	-79.03	1091.73	6245.74	1191874.39	-86279.42
N=5	X= 5810.99	Y= 42675.92			x <sup>2</sup> = 54180.76	y <sup>2</sup> = 4339350.34	xy= 185163

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

$$\begin{aligned}
 &= \frac{5810.99}{5} \\
 &= 1162.19
 \end{aligned}$$

$$\text{Mean (Y)} = \frac{\sum Y}{N}$$

$$\begin{aligned}
 &= \frac{42675.92}{5} \\
 &= 8535.18
 \end{aligned}$$

xy

185163

$$\begin{aligned} \text{Correlation coeff.}(r) &= \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}} = \frac{3115358.31}{\sqrt{51480.76 \times 4339350.34}} \\ &= \frac{3115358.31}{232.76 \times 2083.11} \\ &= 0.3819 \end{aligned}$$

$$\begin{aligned} \text{P.Er} &= 0.6745 \times \frac{1-r^2}{5} \\ &= 0.6745 \times \frac{1-(0.3819)^2}{2.24} \\ &= 0.2926 \end{aligned}$$

### Correlation Coefficient between Interest Income and Net Profit

Let, X be interest income and Y be Net profit respectively.

Year	X	Y	x=X- $\bar{X}$	y=Y- $\bar{Y}$	x <sup>2</sup>	y <sup>2</sup>	xy
2007/08	810.05	198.75	-132.4	108.14	17529.76	11694.26	-14317.74
2008/09	850.53	65.78	-91.92	-24.83	8449.29	616.53	2282.37
2009/10	1013.71	71.49	71.26	-19.12	5077.99	365.57	-1362.49
2010/11	1095.5	26.43	153.05	-64.18	23424.30	4119.07	-9822.75
2011/12	-	-	-	-	-	-	-
N=5	X= 3769.79	Y= 362.45			x <sup>2</sup> = 54481.32	y <sup>2</sup> = 16795.41	xy= -232220.60

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

$$\begin{aligned} &= \frac{3769.79}{5} \\ &= 942.45 \end{aligned}$$

$$\text{Mean (Y)} = \frac{\sum Y}{N}$$

$$\begin{aligned} &= \frac{362.45}{5} \\ &= 90.61 \end{aligned}$$



$$\begin{aligned}
 \text{Correlation coeff.}(r) &= \frac{xy}{\sqrt{x^2} \sqrt{y^2}} = \frac{-23220.60}{\sqrt{54481.32} \sqrt{16795.41}} \\
 &= \frac{-23220.60}{30249.56} \\
 &= -0.7676
 \end{aligned}$$

$$\begin{aligned}
 \text{P.Er} &= 0.6745 \times \frac{1-r^2}{5} \\
 &= 0.6745 \times \frac{1-(-0.7676)^2}{2.24} \\
 &= 0.1385
 \end{aligned}$$

### Annex 13

#### Trend Analysis of Total Investment and Loans and Advances Nabil Bank

Year	X	Y	x=X- $\bar{X}$	y=Y- $\bar{Y}$	x <sup>2</sup>	y <sup>2</sup>	xy
2007/08	257.61	3057.43	-1079.45	-2514.05	1165212.30	6320447.40	2713791.27
2008/09	823.00	4574.51	-514.06	-996.97	264257.68	993949.18	512502.39
2009/10	1538.90	5466.61	201.84	-104.87	40739.38	10997.72	-21166.96
2010/11	1599.35	6694.95	262.29	1123.47	68796.04	1262184.84	294674.94
2011/12	2466.43	8063.90	1129.37	2492.42	1275476.59	6212157.46	28146864.37
N=5	X= 6685.29	Y= 27857.40			x <sup>2</sup> = 2814481.99	y <sup>2</sup> = 1479936.60	xy= 6314666.01

$$X = 6685.29$$

$$Y = 27857.40$$

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

$$= 1337.06$$

$$\bar{Y} = \frac{Y}{N}$$

$$= 5571.48$$

$$y = a + bx \dots \dots \dots (i)$$

$$y = Na + bx \dots \dots \dots (ii)$$

$$xy = a \sum x + b \sum xy \dots \dots \dots (iii)$$

Substituting the value of x and y in equation (ii) and equation (iii) we get,

$$27857.40 = 5a + 6685.29 b \dots \dots \dots (iv)$$

$$6314666.10 = 6685.29a + 2814481.99 b \dots \dots \dots (v)$$

Multiplying equation (iv) by 1337.058 and then subtracting equation (v) from it, we get,

$$37246959.53 = 6685.29a + 44693102.38b$$

$$6314666.01 = 6685a + 2814481.99b$$

$$\begin{array}{r} - \\ - \\ - \\ \hline 30932293.52 = 41878620.39b \end{array}$$

or,  $b = \frac{30932293.52}{41878620.39}$

$$\dots \quad b = 0.7386$$

Now subtracting the value of b in equation (iv), we get

$$27857.40 = 5a + 6685.29b$$

$$\text{or, } 27857.40 = 5a + 6685.29 \cdot 0.7386$$

$$\text{or, } a = \frac{22919.52}{5} = 4583.90$$

$$\dots a = 4583.90, b = 0.7386$$

Year	Trend value
2007/08	$y = a + bx = 4583.52 + 0.7386 \cdot 0 = 4583.90$
2008/09	$y = a + bx_1 = 4583.52 + 0.7386 \cdot 1 = 4584.63$
2009/10	$y = a + bx_2 = 4583.52 + 0.7386 \cdot 2 = 4586.37$
2010/11	$y = a + bx_3 = 4583.52 + 0.7386 \cdot 3 = 4586.12$
2011/12	$y = a + bx_4 = 4583.52 + 0.7386 \cdot 4 = 4586.85$
2012/13	$y = a + bx_5 = 4583.52 + 0.7386 \cdot 5 = 4587.59$
2013/14	$y = a + bx_6 = 4583.52 + 0.7386 \cdot 6 = 4588.33$
2014/15	$y = a + bx_7 = 4583.52 + 0.7386 \cdot 7 = 4589.07$
2015/16	$y = a + bx_8 = 4583.52 + 0.7386 \cdot 8 = 4589.80$
2016/17	$y = a + bx_9 = 4583.52 + 0.7386 \cdot 9 = 4590.54$

Year	X	Y	$x=X-\bar{X}$	$y=Y-\bar{Y}$	$x^2$	$y^2$	xy
2007/08	443.55	6467.19	-932.69	-3126.90	869918.09	977553.64	2916428.36
2008/09	676.08	8600.81	-700.16	-993.28	490229.62	986621.05	695454.92
2009/10	970.23	9514.47	-406.01	-79.262	164847.36	6340.61	32181.16
2010/11	2130.51	10580.65	754.26	986.552	568917.19	973284.84	744116.71
2011/12	2660.75	12807.37	1284.50	3213.72	1649955.66	10325116.95	4127447.88
N=5	X= 6881.12	Y = 47970.49			$x^2$ = 3743867.92	$y^2$ = 22068917.09	xy= 8515627.03

$$X = 6881.12$$

$$Y=47970.49$$

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

$$= 1376.224$$

$$\bar{Y} = \frac{Y}{N}$$

$$= 9594.098$$

$$y=a+bx \dots \dots \dots (i)$$

$$y =Na +bx \dots \dots \dots (ii)$$

$$xy = a \quad x + b \quad y \dots \dots \dots (iii)$$

Substituting the value of x and y in equation (ii) and equation (iii) we get,

$$47970.49= 5a + 68812 b \dots \dots \dots (iv)$$

$$8515629.03 = 6881.12a + 3743867.92 b \dots \dots \dots (v)$$

Multiplying equation (iv) by 1376.224 and then subtracting equation

(v) From it, we get,

$$66018139.63 = 688.12a +9469962.49b$$

$$8515629.03 =6881.12a +3743867.92b$$

$$\begin{array}{r} - \\ - \\ - \\ \hline \end{array}$$

$$5750210.60 = 5726094.57b$$

$$\text{or, } b = 5750210.60$$

$$\frac{5750210.60}{5726094.57}$$

$$\dots \quad b = 1.0042$$

Now subtracting the value of b in equation (iv), we get

$$47970.49 = 5a + 6881.12 \times 0.1.0042$$

or,  $47970.49 = 5a + 6910.02$

or,  $47970.49 - 6910.02 = 5a$

or,  $a = \frac{4106046}{5} = 8212.09$

...  $a = 8212.09, b = 0.1460$

Year	Trend value	
2007/08	$y = a + bx = 8212.09 + 1.0042 \times 0 =$	8212.09
2008/09	$y = a + bx_1 = 8212.09 + 1.0042 \times 1 =$	8213.09
2009/10	$y = a + bx_2 = 8212.09 + 1.0042 \times 2 =$	8214.09
2010/11	$y = a + bx_3 = 8212.09 + 1.0042 \times 3 =$	8215.10
2011/12	$y = a + bx_4 = 8212.09 + 1.0042 \times 4 =$	8216.16
2012/13	$y = a + bx_5 = 8212.09 + 1.0042 \times 5 =$	8217.11
2013/14	$y = a + bx_6 = 8212.09 + 0.1460 \times 6 =$	4045.69
2014/15	$y = a + bx_7 = 8212.09 + 1.0042 \times 7 =$	8219.12
2015/16	$y = a + bx_8 = 8212.09 + 1.0042 \times 8 =$	8220.12
2016/17	$y = a + bx_9 = 8212.09 + 1.0042 \times 9 =$	8221.13

## Annex 14

### Nabil Bank Trend Analysis of Loans and Advances and Total Deposit Ratio

Year	X	Y	$x=X-\bar{X}$	$y=Y-\bar{Y}$	$x^2$	$y^2$	xy
2007/08	4574.5	2959.44	-2405.03	-2104.39	5784169.30	4428457.27	5061121.08
2008/09	5466.61	3948.47	-1512.92	-1115.36	2288926...93	1244027.93	44213.64
2009/10	6694.96	4908.46	-284.57	-155.37	80980.08	24139.84	889497.87
2010/11	8063.9	5884.12	1084.37	820.29	1175858.30	672875.68	7966399
2011/12	10097.69	7618.67	3118.16	2554.84	9722921.79	652707.43	
N=5	X=34897.66	Y=25319.16			$x^2=$ 19052856.37	$y^2=$ 12896698.13	xy= 1610247.36

$$X = 34897.66$$

$$Y=25319.16$$

$$x^2 = 12896698.13$$

$$xy = 610247.36$$

$$y=a+bx.....(i)$$

$$y =Na +bx.....(ii)$$

$$xy = a \quad x + b \quad y.....(iii)$$

Substituting the value of x and y in equation (ii) and equation (iii) we get,

$$25319.16 = 5a + 34897.66 b.....(iv)$$

$$1610247.36 = 34897.66a + 19052866.37 b.....(v)$$

Multiplying equation (iv) by 1072.772 and then subtracting equation (v) from it, we get,

$$176715887.40 = 34897.66a + 1217846673b$$

$$1610247.36 = 34897.66a + 19052866.37b$$

$$- \quad - \quad -$$

---


$$17510247.36 = 11987938.07b$$

or,  $b = \frac{17510247.36}{11987938.07}$

$$\dots b = 0.1460$$

Now subtracting the value of b in equation (iv), we get

$$25319.16 = 5a + 34897.66 \times 0.1460$$

$$\text{or, } 25319.16 = 5a + 5095.05$$

$$\text{or, } 25319.16 - 5095.05 = 5a$$

$$\text{or, } a = \frac{20224.10}{5} = 4044.82$$

$$\dots a = 4044.82, b = 0.1460$$

<u>Year</u>	<u>Trend value</u>
2007/08	$y = a + bx = 4033.82 + 0.1460 * 0 = 4044.82$
2008/09	$y = a + bx_1 = 4044.82 + 0.1460 * 1 = 4044.96$
2009/10	$y = a + bx_2 = 4044.82 + 0.1460 * 2 = 4045.11$
2010/11	$y = a + bx_3 = 4044.82 + 0.1460 * 3 = 4045.25$
2011/12	$y = a + bx_4 = 4044.82 + 0.1460 * 4 = 4045.40$
2012/13	$y = a + bx_5 = 4044.82 + 0.1460 * 5 = 4045.55$
2013/14	$y = a + bx_6 = 4044.82 + 0.1460 * 6 = 4045.69$
2014/15	$y = a + bx_7 = 4044.82 + 0.1460 * 7 = 4045.84$
2015/16	$y = a + bx_8 = 4044.82 + 0.1460 * 8 = 4045.98$
2016/17	$y = a + bx_9 = 4044.82 + 0.1460 * 9 = 4046.13$

**Standard Chartered Bank**

Year	X	Y	$x=X-\bar{X}$	$y=Y-\bar{Y}$	$x^2$	$y^2$	xy
2007/08	8600.81	7358.84	-2124.96	-1176.34	4515455.00	1383775.80	2499675.45
2008/09	9514.96	8083.97	-1210.81	-451.21	1466060.86	203590.46	546329.58
2009/10	10580.65	7961.51	-145.12	-573.67	21059.81	329097.27	83250.99
2010/11	12807.37	9644.69	2081.6	1109.51	433058.56	1231012.44	2309556.02
2011/12	12125.57	9626.91	1399.8	1091.73	1959440.04	1191874.39	1528203.65
N=5	X= 53628.86	Y= 42675.92			$x^2$ = 1229285.32	$y^2$ = 4339350.34	xy= 6967241.28

$$X = 53628.86$$

$$Y=42675.92$$

$$x^2 = 1229285.32$$

$$xy = 6967241.28$$

$$y=a+bx.....(i)$$

$$y =Na +bx.....(ii)$$

$$xy = a \quad x + b \quad y.....(iii)$$

Substituting the value of x and y in equation (ii) and equation (iii) we get,

$$42675.92 = 5a + 53628.86 b.....(Iv)$$

$$6967241.28 = 53628.86a + 12296285.32 b.....(v)$$

Multiplying equation (iv) by 1072.772 and then subtracting equation (v) from it, we get,

$$42675.92 = 5a + 53628.86 b$$

$$6967241.28 = 53628.86a + 12296285.32 b$$

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$$450764946.50 = 286375834b$$

or,  $b = 450764946.50$

$$\frac{450764946.50}{2863759340}$$

...  $b = 0.1574$



Now subtracting the value of b in equation (iv) we get

$$42675.92 = 5a + 53628.86 \times 0.1574$$

$$\text{or, } 25319.16 = 5a + 8441.18$$

$$\text{or, } 25319.16 - 8441.18 = 5a$$

$$\text{or, } a = \frac{34234.74}{5} = 6846.95$$

$$\dots a = 6846.95, b = 0.1574$$

<u>Year</u>	<u>Trend value</u>
2007/08	$y = a + bx = 6846.95 + 0.1574 \times 0 = 6848.95$
2008/09	$y = a + bx_1 = 6846.95 + 0.1574 \times 1 = 6847.10$
2009/10	$y = a + bx_2 = 6846.95 + 0.1574 \times 2 = 6847.26$
2010/11	$y = a + bx_3 = 6846.95 + 0.1574 \times 3 = 6847.42$
2011/12	$y = a + bx_4 = 6846.95 + 0.1574 \times 4 = 6847.57$
2012/13	$y = a + bx_5 = 6846.95 + 0.1574 \times 5 = 6847.73$
2013/14	$y = a + bx_6 = 6846.95 + 0.1574 \times 6 = 6847.89$
2014/15	$y = a + bx_7 = 6846.95 + 0.1574 \times 7 = 6847.85$
2015/16	$y = a + bx_8 = 6846.95 + 0.1574 \times 8 = 6848.20$
2016/17	$y = a + bx_9 = 6846.95 + 0.1574 \times 9 = 6848.35$