

Chapter 1

1. Introduction

This chapter describes the general background of the study upon which it is based. This chapter deals with the conceptual foundation of the study. It provides groundwork to the study. It describes the general background, limitation, objective and significance of the study. It introduces the various aspect of the study and establishes the foundation of the study to start up. The study is defined with its origin and purpose along with the organization modality in brief mode of description in this chapter.

1.1 GENERAL BACKGROUND

Overview on economic environment

The global economy is encountering the first ever post World War II era big economic crisis. As a result, the world economy is expected to face dual problems of negative impact on domestic demand and economic growth on the one hand, and contraction of global exports and imports on the other. The financial world was shaken to its foundation during some highly turbulent weeks in autumn 2008. The after that of the Subprime Crises the originated from the highly over speculated US housing market spread across the world like a plague. Major Banks and Financial Institutions around the world saw their balance sheets drastically diminishing, if not completely wiped out. Governments stepped in with enormous capital rescue plans, and former gigantic investment institutions were brought, merged with competitor, or, in some cases, went under. Even nations, such as Island, were on the verge of total financial collapse. This incredibly hard striking and fast moving crises obviously resulted in considerable drops at all major stock markets. That the markets react negatively to problems like these are in itself not very extraordinary. However, what was remarkable were the extreme fluctuations that occurred, many which only could be compared to some historical dark data. Over-day-drops of several percentages were again and again recorded. The Russian stock exchange, for example, completely closed numerous times. How could these drastic fluctuations occur? Fundamentals can only explain this question to a certain extent. There must be something else at play, a force with enough penetrating power to turn the financial world upside down. The consequence of reduced employment

opportunities caused by the slowed down economic activities reflected in income vulnerability of the people will make them face several livelihood problems. As compared to expansion in global economy by 5.1 percent, 5.2 percent and 3.2 percent in the years 2005, 2006, and 2007 respectively, it is estimated to turn negative by 1.3 percent in 2009. The global economy, however, is estimated to grow by 1.9 percent in 2010 if economic stimulus packages could be successfully adopted and executed. This estimated growth, as compared to growth rates achieved between 2006 and 2008, would still be quite low making outcome of troubled how gradual slowdown appeared in aggregate global economic growth in 2008 as compared to years 2006 and 2007 expected to witnessing negative growth in 2009 among some groups of economies including advanced and newly industrialized Asian economies and slowdown in economic growth rates in other groups namely, Newly Emerged and Developing Economies, African countries and Middle-East Countries.

Nepal's two neighbors, China and India achieved 9.0 and 7.3 percent respective growth rates in 2008, with estimates of such growth limited to 6.5 percent and 4.5 percent respectively in 2009. Nepal's economic growth rate in FY2008/09 is estimated to decline. In comparison to 5.3 percent GDP growth achieved at producers' price on FY 2007/08, is estimated to grow in this fiscal year only by 4.7 percent. If the agriculture sector suffered due to adverse weather situation, non agriculture sector could not perform, better either especially due to problems like energy crisis and strikes (bandhs). Non-agriculture sectors of the economy that recorded expansion in FY 2008/09 in comparison to the previous fiscal year have been, education (from 3.3 to 9.9 percent); construction (3.1 percent to 5.7 percent); and transport, communication, and warehousing (from 7.1 percent to 7.8 percent). Similarly, real estate, rent, professional services (4.4 to 4.5 percent); and public administration and defense (from 0.4 percent to 3.3 percent) also have recorded growths during the period. Other sectors expect those mentioned above recorded either minimal or negative growth in FY2008/09 in comparison to FY2007/08. For example agriculture and forestry (from 4.7 to 2.1 percent); aquaculture (from 7.1 percent to 4.5 percent); mines and explorations (from 2.8 to 2.5 percent); wholesale and retail trade (7.0 to 4.7 percent). Likewise, hotel and restaurant (from 8.5 percent to 5.1 percent); financial intermediation (from 13.8 to 3.3 percent); health

and social works (from 13.6 to 6.5 percent); and social and personal services (from 11.1 to 6.1 percent) also recorded declined growth in their respective sub-sectors. Among the sub-sectors recording negative growth in production are, production industry (from 0.2 to -0.5 percent); and electricity, gas and water (from 3.7 percent to -1.1 percent). Observation of the structure of GDP shows among the production sector of the economy, agriculture occupied 32.4 percent, followed by wholesale and retail trade 13.7 percent, transport, communication, and warehousing 10.5 percent. Among other remaining sub-sectors, real estate and professional services 8.3 percent manufacturing industry 6.8 percent, and construction 6.4 percent. Likewise education, financial intermediation, and electricity, gas and water have their respective 6.0 percent, 4.8 percent, 1.7 percent shares to GDP. Of the remaining portion, education, public administration and defense shared 2.0 percent, hotel and restaurant 1.5 percent and health.

And social works contributed 1.3 percent to GDP. In recent years, there has been a steady growth in the tertiary sector with its increasing contribution to the Nepalese economy, but its expansion rate shrunk this year to 5.9 percent against 7.0 percent growth in the previous year. Share of this sector in GDP stood at 51.7 percent as compared to 51.6 percent in the previous year. Likewise, the primary sector, which grew by 4.7 percent in the previous year gained additional growth of 2.2 percent, by raising the level of this sector's contribution of 33.3 percent in the previous year to 33.1 percent this year. Growth of the secondary sector remained the same to that of previous year's level of 1.8 percent with a marginal change in the share to GDP at 15.7 percent in the preceding year to 15.0 percent in the current fiscal year. The ratio of domestic savings to GDP at current prices in FY2008/09 stood at 8.0 percent as compared to 11.2 percent in FY2007/08. Similarly, the ratio of national saving reached 32.3 percent in FY2008/09 from 31.5 percent in the previous year. Consequently, the ratio of investment to GDP down slid from 31.8 to 29.7 percent between these two periods. Ratio of net exports of goods and services to GDP, which remained adverse by 20.3 percent in the previous year, has reached 21.7 percent during this period.

The ratio of revenue mobilization to GDP grew to 14.8 percent as compared to the ratio of 13.2 percent in FY2007/08 because of encouraging growth in revenue collection. Both the domestic and external debts are on increase on the backdrop of

widening gap between the expenditure and income. Consequently, the ratio of outstanding debt to GDP, which stood at 39.6 percent during the first eight months FY2007/08, has climbed to 41.0 percent during the same period of FY2008/09. Of the total outstanding debt, the ratio of foreign debt climbed from 26.4 percent to 28.5 percent, while that of domestic debt remained contained at 12.5 percent as compared to 13.2 percent in FY2007/08. In terms of outstanding debt in numbers, it was 323.87 billion in the mid-March 2008, comprising of Rs. 216.20 billion foreign and 107.67 billion domestic. These numbers by mid-March of 2009 have grown by 21.5 (26.6 percent foreign and 11.4 percent domestic) totaling Rs. 393.59 billion comprising of 273.61 billion foreign and 119.98 billion domestic.

The Government of Nepal added up another 17.5 percent investment in public enterprises between FY2006/07 and FY2007/08. By FY2007/08, investment made in the public enterprises totaled Rs. 165.61 billion comprising of Rs.91.92 billion as shares and Rs. 73.69 billion as loans. In FY2007/08 such investment amount stood at Rs. 140.94 billion with Rs. 75.80 billion as shares and Rs. 65.14 billion as loans. The total Government of Nepal owned share investment fund with public enterprises, which was Rs.38.90 billion in FY2006/07 grew by 23.7 percent reaching to Rs.48.11 billion in FY2008/09. Inflation rate in the current fiscal year has remained very high. The point-to point based CPI, which rose by 7.2 percent in mid-March 2008 recorded a growth rate of 13.1 percent by mid-March 2009. During the same period, the wholesale price index also has shot up from 6.6 percent to 12.3 percent. Likewise, the GDP deflator price index also rose steeply from 6.3 percent in FY2007/08 to 12.2 percent in FY2008/09. Economic growth in recent years has shown a positive trend in general, showing no visible impact on the growth in deposits with the banking system. The 13.4 percent growth in savings mobilization observed in the first eight months of FY2007/08 grew by 12.1 percent in the first eight months of FY2008/09. The remittance flow on one hand, and expansion of commercial banks and their branches on the other have helped the growth in bank deposits. Exports, which had decreased by 2.9 percent during the first eight months of FY2007/08 has risen by 17.1 percent during the first eight months of FY2008/09. Imports, nonetheless, has shown the rising trend with 26.1 percent growth in the review period of this fiscal year as compared to 19.2 percent growth recorded during the same period of the previous fiscal year. The income

from remittance, which amounted to Rs. 82.42 billion in the first eight months of the previous fiscal year has reached to Rs. 131.0 billion during the review period of this fiscal year, the numbers of visitors to Nepal in the calendar year 2007 had increased by 37.2 percent while their number decreased by 5.0 percent during the same period in 2008. In the number term, 526,705 tourists had visited Nepal during 2007 while the number declined to 500277 in 2008. On average days of stay, it has marginally decreased from 11.96 to 11.78 days. Despite the fall in tourist arrivals in FY2008/09, this sector earned foreign exchange worth Rs. 16.82 billion in the first eight months as compared to the earnings of Rs. 18.65 billion the sector made in the whole duration of FY2007/08.

Nevertheless, the growth rate of foreign exchange earnings during the first eight months of 2007/08 was 76.3 percent as compared to the growth of 54.5 percent achieved during the review period of this fiscal year. In the perspective of the development of the social sector as a priority sector of the Government, there have been steady improvements in the health and education sectors. Participation of the Government and the private sector is on increase. Similarly, both groups have been demonstrating their enhanced vigor in the health sector. In this context, the Government, in recent years by giving high priority to the public health, has carried out the distribution of 40 different types of medicines through hospitals and health centers. The number of primary, lower and secondary schools that stood at 29220, 9739, and 5894 respectively in the academic year 2007/08 has gone up to 30924, 10636 and 6515 respectively in the academic year of 2008/09. In the previous academic year the total number of students was 6.534 million, which reached to 6.064 million in this academic year. Likewise, universities in Nepal are actively pursuing the work of preparing highly qualified human resource by bringing qualitative improvement in them. Consequently, the number of students engaged in studying in different disciplines is increasing steadily.¹⁸ Foreign currency reserve is at the satisfactory level with a favorable Balance of Payments, especially due to credit to high remittance income despite sluggish economic growth and heavy pressure of rising prices. Three major reasons apparent causing the adverse situation against economic expansion and development are disruption on movements being created from time to time, industrial relations, and energy supply. Though capital expenditure is not up to the level of expectation, progress achieved

in revenue mobilization in the Government sector has been very much encouraging. A big question mark has emerged on our skill of overall economic management in a situation where the Nepalese economy entangled in the vortex of economic sluggishness amidst the double-digit price rise thereby adversely affecting the purchasing power and living standard of the Nepalese people. Hence, there is the necessity of wider reform initiatives on development efforts, investments, and regulatory areas for expanding the economy. The nation is also being made to bear adverse supply stock due to frequent Bandhs, chakka jams, strikes etc. For this, national imperative is making sufficient legal arrangements and ensuring effective enforcement of those provisions for completely banning Bandhs, strikes especially against transportation and movements of the people for allowing the country's economy move ahead in a smooth and natural way, and also providing relief to the people's livelihood.

Highlights on performance of Banks and Non-banks Financial Institutions

Financial Sector at a Glance

The Nepalese Financial Sector is composed of Banking sector and non-banking. Banking sector comprised Nepal Rastra Bank (NRB) and Commercial banks. The non-banking sector includes Development Banks, Finance Companies, Micro-credit Development Banks, Co-operative Financial Institutions; Non-governmental Organizations (NGOs) performing limited banking activities and other financial institutions such as Insurance Companies, Employee's Provident Fund, Citizen Investment Trust, Postal Saving Offices and Nepal Stock Exchange. However, this bulletin contains information of those financial institutions only, which are licensed by NRB up to mid-January, 2009. 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 2009, altogether 235 banks and non-bank financial institutions licensed by NRB are in operation. Out of them, 29 are "A" class commercial banks, 59 "B"

class development banks, 78 “C” class finance companies, 12 “D” class micro-credit development banks, 16 saving and credit co-operatives and 45 NGOs.

As an increased in number of Financial Institutions as well as volume of transactions, the total assets/liabilities of the financial system witnessed continuous growth over the last seven and half years. During the period 2001 to mid-January 2009, the total assets of whole financial system increased by 14.97 percent per annum and reached to Rs. 829293.3 million in mid-January 2008 from Rs. 273946.2 million in mid-July 2001. In the mid-January 2009 the total assets registered a growth of 17.41 percent compared to 21.26 percent in mid-July 2008. The ratio of total assets/liabilities of the financial system to GDP at nominal prices increased to 86.38 percent at mid-January 2009 from 86.30 percent in mid-July 2008. This ratio was 62.04 percent in mid-July 2001. The structure of financial assets/liabilities shows that Commercial bank alone holds more than 80 percent of the total assets and liabilities of the financial system. As of mid-January 2009, Commercial Bank group occupied 82.3 percent of total assets/liabilities followed by Finance Companies 9.4 percent, Development Banks 6.0 percent, Micro-credit Development Bank 1.7 percent and others 0.6 percent. The respective shares were 80.2, 11.4, 5.6, 1.8 and 1.0 percent respectively in mid-July 2008.

The composition of the total liabilities shows as usual, deposit hold dominant share of 69.6 percent followed by capital fund 4.43 percent and borrowing 4.41 percent respectively in mid-January 2009. Likewise in the assets side, loan and advances accounted the largest share of 52.80 percent followed by investments 16.48 percent, liquid funds 12.20 percent and other assets 7.66 percent in the same period. Commercial Banks held dominant share on the major balance sheet components of financial system. Of the total deposits Rs. 576897.60 million in mid-January 2009, the Commercial Banks occupied 83.2 percent. Similarly, finance companies held 9.5 percent, development banks 6.4 percent, micro credit development banks 0.3 percent and others 0.6 percent. Likewise, on the loans and advances the share of commercial banks stood at 77.9 percent, development banks 7.4 percent, finance companies 12.2 percent, micro credit development banks 1.8 percent and others 0.7 percent in mid January 2009.

In the same year the share of commercial banks in borrowings, liquid funds and investments constituted 59.0 percent, 74.8 percent and 92.2 percent respectively. The capital fund, one of the components of liabilities, witnessed a growth of 42.48 percent and reached to Rs. 36728.30 million in January 2009 from 25778.0 million in mid July 2008. The borrowings and deposit increased by 16.42 percent and 13.36 percent respectively, while other liabilities decreased by 34.46 percent compared to mid July 2008. Similarly loans and advances, the major component of assets increased by 11.83 percent and reached to Rs. 437871.4 million in mid January 2009 from Rs. 391537.7 million in mid July 2008. The liquid fund and investment increased by 3.41 percent and 13.62 percent in mid January 2009 compared to the previous year respectively.

Nepal's financial sector has encouragingly progressed after fiscal liberalization in the country. Consequently, establishment and operations of Banks/Financial Institutions, and Non-Financial Institutions has substantially increased. The range of financial inclusiveness has widened, environment for capital mobilization eased, and opportunities in the banking sector extended with the expansion of the financial sector. As the banking business operates at high-risk environment, the degree of risk grows in proportion of its expansion. Hence, scope of regulation and supervision needs to be widened for overall enabling and strengthening of the financial sector by constantly guarding the trend of steadily escalating risk. An enabled and robust financial sector is necessary for enhancing effectiveness of the Monetary Policy and dynamism of the economy. Two large and older banks i.e. Nepal Bank Ltd., and Rastriya Banijya Bank occupy a large share in Nepal's financial system. Financial Sector Program is ongoing since last few years for improving the financial situation of these banks. Some improvement in financial situation has been achieved through the implementation of the said program though; the non-performing loan is still big chunks in their loan portfolios accompanied by negative capital fund. The aggregate health of the banking sector is affected as the loans mobilized by these two banks in the past could not be realized naturally weakening the management of credit. Hence, expeditious reducing the share of no-performing loans remains the persistent challenge. In the perspective of the Umbrella Act concerning Development Banks, Saving and Credit Cooperatives, and NGOs operated Micro-finance institutions already

enacted; making necessary arrangement for regulation, inspection and supervision, of micro-finance institutions through the establishment of a Second-Tier Institution is another challenge. With a number of banks and financial institutions getting involved in channeling credit flows to the ultra poor, issues like double/triple counting of loan investments, identification of targets, and deciding their scope of work etc have emerged. If there is the necessity of drafting the Act Rules, Manual, and programs for effective execution of the Microfinance Policy 2008, it is a challenge of ensuring a sustainable financial source for Rural Self-Reliance Fund. Bringing down the level of non-performing loan is very much necessary for reforming the financial sector and sustaining it. Despite the idea for the establishment of Asset Management Company floating around since last few years, it has yet to materialize. The existing huge amount of non-performing assets of the Banks and financial institutions has been a challenge against the development and sustainability of the financial sector. It is a challenge of arranging necessary infrastructures including financial, physical, and human resources for strengthening of Debt Recovery Tribunal and establishment of Asset Management Company as measures toward bringing down the level of non-performing loans. 4.6 Secured Transactions Act 2063 (2007) is already enacted. Now, there is a need of making permanent arrangement for Security Transactions Registration Office to promote economic activities and materialize the true spirit of the Act. In addition to evaluation of achievements of financial institutions, it is necessary to ensure transparency in various aspects of their transactions. Establishment of a Credit Rating Agency has yet to materialize despite policy initiations made towards that direction. Such type of institution helps in making the financial market competitive while ensuring its sustainability through the market process. It will be appropriate to establish a Credit Rating Agency in the country with the help of a reputed foreign credit agency. It is necessary to make the country's policy stance clear on Deposit Insurance by conducting detailed analysis and review on the subject matter with the economic and financial aspects of Banks and Financial Institutions. Major reason for conducting such a detailed study would be inter alia, to encourage savings for the economic development of the country; mobilization of savings of capital formation; enhance credibility of banks and financial institutions; protect the interest of depositors; and adopt the positive aspects observed in advanced and developing countries as well.

The study is concentrated on the short term financing services. The short term financing practice in Nepalese banks, problem associated with its usage and operations and the future perspective of its better application. As per the limitation the study is concentrated in the banking operation of the short term financial services of 2 banks. They are

NABIL BANK LIMITED

STANDARD CHARTERED BANK LIMITED

The study has analyzed the balance sheet of the above mentioned bank as well as the private questionnaire relating to the study were asked to the concerned authority for the completion of the study.

NABIL BANK

The arrival of NABIL Bank in Nepal on the 12th of July 1984 through a joint venture with Dubai Bank Ltd. under a Technical Service Agreement (TSA), marks a new dawn in the Nepalese banking industry. What is more admirable is with the opening of then Nepal Arab Bank Ltd. Customer Service or marketing took a U-turn. That in substance accelerated the evolution in banking products and services thereafter in Nepal. The bank commenced with a team of about 50 staff members and Rs. 28 million as capital. Today NABIL entering the 26th year of operation has proved that it has through its past progressions and through different phases in the banking industry achieved two things it can take pride in: first it has a large clientele base and supportive stakeholders, secondly, it has succeeded in positioning itself robustly in the market for which the credit goes to Team of NABIL. Today the bank had established itself as the Bank of 1st choice. It is the largest bank in terms of the network and number of branches amongst the commercial banks with a wide network of ATMS and offerings including a range of diversified service products. It has a number of domains in its precedence of excellence that mirrors where it stand in the market. In this span of 24 years of banking operation NABIL has already distributed rich cash dividends, spectacular returns on asset and equity even during the most trying times. All of which endorses the strength and drive with which NABIL proceeds. In order to make its presence felt in every walk of life and serve people across all strata and segments,

have expanded its network by adding 9 more branches that total to 28 points of representation in the nation. It has diversified its realms of business in the interests of our customers and is also being inspired by the noble cause of adding value to economic development. It has multiple sectors in focus to serve host of entrepreneurs as our new strategies as our new strategies are to expand dynamically, exploring new avenues and opportunities. Thus it has packaged its service products into a well diversified range consisting of corporate banking, trade finance, along with consumer and retail banking services specially, card products, microfinance and the like to reach out to the masses. It has been able to reach where the bank is today having lived its values of being C.R.I.S.P. at all times. It has teamed together, built on its strength, taking larger strides as it Surge Ahead Faster – Further together in the years ahead to be the 1st Choice Provider of Complete Financial Solutions of all its stakeholders.

Standard Chartered

Standard Chartered Bank Nepal 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 a history of over 150 years in banking and operates in many of the 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 ATMs 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 services in Nepal. Standard Chartered Bank Nepal Limited offers a full range of banking products and services in Wholesale and consumer banking. The banking has been the pioneer in introducing "customer focused" products 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's ambition to become the world's best international bank and is the mainstay of the Bank's values.

WHAT IS SHORT TERM FINANCING?

Short term financing consist all the liabilities or obligation that are originally scheduled for repayment in period of one year or less. Even though short term financing is repaid within one year, some source provide fund that are continuously rolled over. However commercial banks and other financial institution required the firm to clean up (zero balance) its short term obligation. Short term financing disbursed by bank and other financial institution to the firm for financing inventories requirement, transaction related financing that is of self liquidating nature because of sales of goods provide the cash to repay them. Short term financing services/ sources are also provided by banks for firm to meet regular daily expenses like wages, salary, repair and maintenance. They also are used to take advantage of cash discount and seasonal purchase. Firms who need short term bridge loan to finance and purchase new equipments or projects are also served by short term financing as interim financing until purchase is completed and long term financing is arranged.

1.2 STATEMENT OF THE PROBLEM

The problem toward which this study is directed is to identify the basic causes of limitation of practice in terms of short term financing services of Nepalese Bank and financial institutions operating. As well as it correlates the banking sector with the problem associated with the investment areas of bank like manufacturing and service industries. Taking look at the economic condition of the Nepal, it is facing huge challenges. The critical problem related to Nepalese financial sector are like pervasive role of government, system inefficiency, poor supervision, specialization inadequacy, weak legal environment, family control, poor human resource capabilities. The study has focused on the aspect related to the current practice and its operational functionality. The study has revealed the problem associated with the practice of such short term financing along with it, it tries to find out various possible areas of its implication where it can expand its practice. The study has tried to find out some question like to what extent and how many types of short term financing services are provided? Who are the beneficiaries and what is the basis of this kind of service? Where and in how many ways it can be widely practice as a source of fund? What are the impact with other financial transaction

and fund flows operation? What is the factor that affects this financial practice? The study is very much concentrated in the core areas of practice, problem and perspective of short term financing service of banking area in Nepalese ground. The commercial bank operation of short term financing is studied by correlating with related beneficiaries and other organization. The direction of study towards the problem provide the solid basis of understanding about the current and possible applicable areas of short term financing and analysis of regarded cost, time, mode of payment as well as comparative study with other bank with numerous quantitative approach. As the study focus on the short term financing services of the bank, it is found that the loan which are having less than one year period are practiced very less and mostly are consumed by the manufacturing sector. Which indicates that the loan either that is in short term or long term it is highly dependent on the manufacturing sector. The above figure shows that there is very limited area of the usage and consumption of short term loan but it is not true there are various sectors where it can be suitable such as seasonal investment are like agriculture and celebratory tourism that are to be promoted by the government by the government and the commercial bank too. Because of such limited practice the study has directed toward the associated problem and came out with some precious statement for the optimized usage of short term financing where it can be utmost applicable and suitable.

Taking a glance of the Nepalese economy it is facing huge amount of challenges. The sluggish economic growth has been a major problem in the economic development process of Nepal. Based on available data estimates by second year of implementation of the three-year interim plan, achieving 5.5 percent growth target does not seem possible. Moreover, achieving 10 percent growth targeted for FY 2008/09 seems more difficult. Achieving the targeted economic growth rate has been difficult despite positive trend of peace process and security situation. Agriculture has been the major contribution sector in Nepalese economy from the production, employment, and livelihood aspects. Our economy having background of planned development process for last five decades, improving the weakness in irrigation system an important factor for the development and promotion of agriculture, is a challenge in the agriculture sector. A number of factors like, keenness for raising investment level, identifying environment for investment of

opportunity for investment have their own roles to play in non-agriculture sector. More important than these factors are, unhindered energy supply, non-problematic industrial relation and stable industrial and labor policies. In case of Nepal, more than 12 hours of daily load shedding, sour industrial relations, and frequent (and unexpected) changes in industrial and labor policies have hindered the growth of industry, other businesses and services. As a result, non agriculture sector also does not seem to achieve the target set for the interim plan or the current fiscal year. This is our challenge. The country has enormous potential for raising GDP through maximum utilization of opportunities available in the areas of agro-processing industry tourism, hydropower, high-value herbs processing industry, education, and health. Mobilization of domestic and foreign investments becomes very much necessary for enhancing the use of available exclusive natural wealth. Amidst the current uneasy atmosphere to attract investments, attention of all concerned needs to be drawn towards this reality. It is a challenging responsibility of creating interest of all concerned towards the fact that investments in such industries can make solid contribution towards reducing unemployment and alleviate poverty. The economy needs to expand economic activities, which would support gaining high and sustainable economic growth and meet people's aspiration in the process of intensification of inclusive socio-economic shape of development. For this, taking short and long-term measures is very much necessary. In the process, there is a need to pursue inclusiveness as a process and opportunity for development while considering the role of administration machinery and quality human resource. Bringing the intended improvement to these areas is necessary to achieve the above mentioned objectives. There is no doubt about economic activities to gain momentum if competitiveness could be enhanced by containing the cost the economy by easing movements and transport (of goods and services) by discouraging the present trend of creating frequent obstructions on roads transport. In addition it is a challenge of expanding industrial and trading, and other commercial activities by bringing appropriate improvement in industrial labor relations.

The study finds evidence that short term credit secured by collaterals is associated with business borrowers with a high risk of default. While an unsecured short-term loan is repaid from the borrower's future cash flow, a loan secured by accounts

receivable (a unique form of “inside” collateral) is repaid from previously generated and observed sales (the borrower’s trade credit terms to its customers). Consequently, lenders that secure accounts receivable are most concerned with the credit risk of the borrower’s customers and the borrower’s ability to continue to generate new sales. A study has demonstrated that the value of short term financing credit is associated with the borrower’s business risk and the quality of the borrower’s customers. Empirical tests on a sample of selected firms (Standard Chartered Bank Limited and NABIL Bank Limited) find that firms with secured line of credit loans are observably riskier and have fewer expected growth opportunities. The study findings suggest that observably riskier and have fewer expected growth opportunities in unsecured basis of short term financing. The results highlight the important role of short term financing from bank in providing liquidity to risky, credit- constrained firms that might not have access to external financing through other channels.

In the context of country like Nepal, the practice of short term finance is not the preferred source of financing. In developing country like ours the firms and the borrower firm/individuals rely on short-term credits for imports of several essential consumer goods, including medicines and basic food supplies. The credits also facilitate export-related transactions. The mechanisms commercial banks use to provide trade credits to developing countries are complex and costly. Even a temporary break in the flow of short-term credit can seriously hurt a country’s business. But since short-term trades credits can be structured so that they involve few risks to a bank and at the same time are very costly to the debtor, they are generally that last forms of credit to be cut and the first to be reestablished in debt-distressed developing countries. To gauge the likelihood of continued short term trade-related financial flows to developing countries, it is very important that the area of the lending should be recognized.

1.3 OBJECTIVE OF THE STUDY

This study aims at achieving following objectives/milestones

1. Study and analyze about the practice position of various types of short term financing in Nepalese commercial bank.

2. Find out associated problem associated short term financing in context of practice by commercial banks.
3. To investigate the primary and supplementary causes and factors that positively or negatively affect the short term financing operation.
4. To judge whether short term financing are beneficial in terms of cost pay back period and security for both lending and borrowing organization.
5. To examine applicability, profitability and suitability of short term financing.
6. To find out new possible areas of use of short term financing.
7. Compare short term financing's cost, benefits and other related aspects among commercial banks.
8. Evaluate acceptability of short term financing with other terms of financing.
9. To reveal the true picture of demand and supply of such financing practice as well as the trend and growth of these financing services.
10. To answer the challenges and barrier to access in short term financing for unreached and rural areas.

1.4 SIGNIFICANCE OF THE STUDY

The study made on short term financing services of commercial banks has stated the usage of short term financing activities that are run by commercial banks in context of Nepal. In the developing countries like Nepal where the banks are the lender who has provided the short term source of fund in various model like overdraft, trust receipt, transaction loan and other short term loan and lending. Whereas, the borrower is the organization or firm of manufacturing and service related industries, who demand it according to its operation and requirement. The study has presented and analyzed the practice, problem and perspective of short term financing with the use of different quantitative modules as well as in descriptive way of presentation along. The study is also successful in providing the conceptual consideration as well as financial computation of the value and cost for

short term financing. The study has tries to reveal the clear picture of the practice, problem and perspective in Nepalese banking sector. The study attempts to answer the relative aspect of financing activities with other concerned organization as well as within organization's operation itself.

The study although is for the academic purpose but it provide a clear understanding to other student, researcher and reader with precious fact related to short term financing. The study state about current practice, demand and supply, cost and benefit future possible applicability, accessibility and suitability in other possible sectors. It has also reviewed various study about short term financing which makes the study useful for in-depth knowledge and has presented the study in quantitative as well as in visible form for better analysis of its trend and for future determination. The recommendation from the study has made the study very significant for the growth and development of the short term financing usage.

1.5 ASSUMPTION AND LIMITATION OF THE STUDY

Assumption

1. It assumes that only two types of loan are disbursed by the bank in terms of duration and that is short term loan other the long term loan.
2. It assumes that the short term financing has credit period less than one year.
3. It assumes that the financed amount is repaid within the year.

Limitation

The thesis and its result are limited by geography, population and time and recourse, objective quality of datasets, methodological challenges and resources.

The limitation within the study is bound are as follows.

1. The study is mostly depended on the secondary data (annual report, books, articles, newspaper, journals internet database) and data that are analyzed to interpret the result depend upon the reliability of secondary data.
2. The period of the study covers only few years.
3. The study is only for the partial fulfillment of Masters of Business Studies.

4. This study is limited within the small area of study.
5. Limited resource and time has not allowed the study for extensive analysis of the subject.
6. Due to privacy reason very limited data was supplied from the concerned organization.
7. Limited quantitative analysis is used for analysis is used for analysis of data because of the data set availability.
8. The study is limited with the methodological challenges in assessing the social and economical impact.

1.6 ORGANIZATION OF THE STUDY

The study is organized according to methodology and prescribed pattern of the Tribhuvan University. The study comprises 5 chapters. The organization of the study is structures as follows.

Chapter 1: Introduction

- 1.1 Background of the study
- 1.2 Statement of the problem
- 1.3 Objective of the study
- 1.4 Assumption and limitation of the study
- 1.5 Research methodology
- 1.6 Organization of the study

Chapter 2: Literature Review

- 2.1 Conceptual/Theoretical Review
- 2.2 Review of related studies

Chapter 3: Research Methodology

- 3.1 Research design
- 3.2 Population and sample
- 3.3 Source of data
- 3.4 Data collection techniques

3.5 Data analysis tools

3.6 Limitations of the methodology

3.7 Review of related studies

Chapter 4: Data Presentation and Analysis

4.1 Data Presentation and Analysis

4.2 Major findings of the study

Chapter 5: Summary, Conclusion and Recommendation

5.1 Summary

5.2 Conclusion

5.3 Recommendation

Chapter 2

2. REVIEW OF LITERATURE

2.1 CONCEPTUAL FRAMEWORK

Concept of Finance

Finance is rightly said to be the life blood of the enterprise. Finance is the basic requirement of any business. It is responsible for the commencement, sustenance and growth of the business. There should be the optimum supply of funds because the situation of both the over and under capitalization is injurious to the enterprise. The available finance should be properly used, so that financial growth of the business should take place at accelerated pace. Financial resources should be effectively used for the attainment of the objective of enterprise that is to maximize profit or wealth.

Financial Management

As we know that the finance is the basic requirement of the all business entities. Thus the management of such funding in an appropriate manner is the major task of the firm/enterprise. Financial resource is to be identified, judged, allocated and controlled for the optimum utilization in achievement of the firm's goal. Finance resource management, in this way is concerned with the forecasting of financial requirement, raising the necessary funds and controlling over the utilization of the available finance. It is the business activity, which is concerned with the acquisition and conservation of the capital funds in meeting financial needs and overall objectives of the business enterprise. It is the activity concerned with the planning, raising, controlling and administering of funds used in the business.

Function of Financial Management

1. Forecasting financial needs or estimating capital requirement

It is an important function of the financial management to forecast the short term and long term financial requirement of the business firm. As we know that firm needs finance from its very beginning of commencement to its operation and for its liquidation too. At every step it require the fund and the financial management

function is to forecast such financial needs whether it is for the fixed assets purchase or for the transactional motive, every step taken by the firm needs finance and financial management function is to forecast such financial need.

2. Making financial decision:

The financial decision of the enterprise concerns the composition of assets, capital and investment. Financial decision considers the relationship between the employment of funds and the expected return investment. Sound financial decisions are made after analyzing the relationship between risk and return. It is commonly said that “higher the risk and higher the return”. It does not mean that the management should take higher risk and endanger even the existence of the enterprise. The enterprise should attain the optimum capital structure i.e. reasonable proportion of debt and equity capital. In what proportion debt should be raised to maximize profitability of the enterprise. The financing function basically refers to capital structure decisions.

3. Making dividend policy decision:

The net income earned by the business firm may either be retained in the business or appropriated by the dividend. The financial management should formulate effective policy regarding dividend, retention of the fund and the proportion of net income going to equity shareholder as dividend. The dividend decision should satisfy the shareholders and also retain the sufficient fund for the business reserve.

4. Determining composition of the capital:

This function may also be termed as raising long term funds. The business firm may raise capital through issue of share, debentures sale of fixed assets and increase of liability. Capital budgeting refers to the procurement of long term funds. It refers to the selection of investment proposal or a course of action whose benefits are available over a long period of time. The enterprise will select the best course of raising capital out of alternative sources of funds.

5. Working capital management:

Working capital is the excess of current assets over current liabilities. Sufficient working capital is required at every stage to continue business activities smoothly.

The financial management has to decide about the amount and composition of working capital to meet current liabilities. It will be defective financial policy, if long term liabilities are met out of current assets. Proper and effective working capital budgeting and management ensures the smooth working and growth of the enterprise.

6. Appraisal of financial performance

Effective financial management calls for:

1. The preparation of the financial statement

Income statement

Position statement

Cash flow statement

Fund flow statement

2. Statistical summaries

3. Financial ratios measuring profitability and liquidity

The preparation of the above statements and summaries will help in the evaluation of the policies with references to capital, dividends and financial soundness of the enterprise. Evaluation of the financial policies will show the actual achievement and its comparison with the desired performance will reveals deviations. Financial management will now apply remedial measures to reduce and eliminate weakness and reinforce plus points,

Review of Capital Structure Theories

There are different theories of capital structure. David Durand propounded the net income approach of capital structure in 1952 (Durand 1952). This approach states that firm can increase its value or lower the cost of capital by using the debt capital. Net operating income approach is converse to this approach. This approach contends that the value of a firm and cost of the capital are independent to capital structure. Thus, the firm cannot increase its value by judicious mixture of debt and equity capital. These are two extreme approaches to capital structure. Solomon

developed the intermediate approach to the capital structure in 1963. This traditional theory of capital structure pleads that value of the firm goes increase to a certain level of debt capital and after then it tends to remain constant with a moderate use of debt capital, and finally value of the firm decreases (Solomon 1963). Thus, this theory holds the concept of optimal capital structure, the modern theory of capital structure began with the celebrated paper of Modigliani and Miller published in 1958 (Harris and Ravis 1991). In this paper, they supported the net operating income approach and rejected the traditional theory of capital structure. They contend in their first proposition that the market value of any firm is independent to its capital structure and is given by capitalizing its expected return at the rate appropriate to the risk class (Modigliani and Miller 1958). This was theoretically very sound but was based on the assumption of perfect capital market and no tax world, which were not valid in reality. So, this was corrected in 1963. In correction, they incorporated the effect of tax on value and cost of the capital of the firm (Modigliani and Miller published in 1963); and contend that, in the presence of corporate tax, the value of the firm varies with the variation of the use of the debt due to tax benefit on interest bill (Baral 1996). In 1976, Miller propounded the next version of irrelevancy theory of capital structure. He pleaded in his presidential address to Annual Meeting of American Finance Association held on September 17, 1976 in Atlanta City, New Jersey that capital structure decisions of firm with both corporate and personal taxes are irrelevant (Miller 1977). In 1974, Myers and Pogue developed three theories the lenders chickens out first, the managers chickens out first, and the shareholders chickens out first-of debt capacity (Myers and Pogue 1974). The third theory the shareholders chickens out first-pleads the optimal capital structure. In the 1970s, a number of scholars developed debt capacity theory. Among them, Scott's multi-period model of debt is considerable debt capacity theory. This theory pleads that the value of non-bankrupt firm is a function of expected earnings and the liquidating value of its assets and the optimal level of debt is an increasing function of liquidating value of the firm's assets, the corporate tax rate, and the size of the firm (Scott 1976). Martin and others summarized the debt capacity theories developed by different scholars during 1970s and concluded that the value of the firm is maximized when marginal benefit of debt is equal to the marginal cost of debt (1988, 356). Jensen and Meckling developed the capital structure theory based on the agency costs in

1976. Firm incurs two types of agency costs, cost associated with the outside equity holders and cost associated with the presence of debt in capital structure (Jensen and Meckling 1976). Total agency cost first decreases and after certain level of outside equity capital in capital structure, it increases. The total agency cost becomes minimal at certain level of outside equity capital. Thus, this theory pleads the concept of optimal capital structure. Two sets of capital structure theories were developed during the latter half of the 1970s and first half of the 1980s. Ross developed one set of capital structure theories based on the asymmetric information in 1977, and Myers and Majluf developed the next set in 1984. The first set pleads that the choice of firm's capital structure signals to outside investors the information of insiders, and the second set contends that capital structure is designed to mitigate the inefficiency in the investment decision caused by the information asymmetry (Harris and Ravis 1991). In the course of the development of capital structure theory, Myers elaborated and brought out the Pecking order theory in 1984 originally developed by Donaldson in 1961. According to this theory, management strongly favors internal generation as a source of new funds even to the exclusion of external sources expect for occasional unavoidable bulge in the need for funds (Donaldson 1961). This theory explains the negative relation between profitability and debt ratio and contends that there is no target debt-equity ratio. In financing, first, management prefers the internal equity financing, and then debt financing and finally external equity financing (Martin and others 1988). Thus, this theory explains the financing behavior of management.

Determinants of Capital Structure

Capital structure of a firm is determined by various internal and external factors. The macro variables of the economy of a country like tax policy of government, inflation rate, capital market condition, are the major external factors that affect the capital structure of a firm. The characteristics of an individual firm, which are termed here as micro factors (internal), also affect the capital structure of enterprises. This section presents how the micro-factors affect the capital structure of a firm with reference to the relevant capital structure theories stated earlier.

1. Size of a firm

The bankruptcy cost theory explains the positive relation between the capital structure and size of a firm. The large firms are more diversified (Remmers and others 1974), have easy access to the capital market, receive higher credit ratings for debt issues, and pay lower interest rate on debt capital (Pinches and Mingo 1973). Further, larger firms are less prone to bankruptcy (Titman and Wessels 1988) and this implies the less probability of bankruptcy and lower bankruptcy costs. The bankruptcy costs theory suggests the lower bankruptcy costs, the higher debt level. The empirical studies carried out during the 1970s, as suggested by this theory, also show the positive relation between the size of firms and capital structure (Martin and others 1988). But results of some empirical studies do not corroborates with this theoretical relation.

2. Growth rate

The agency cost theory and pecking order theory explain the contradictory relation between the growth rate and capital structure. Agency cost theory suggests that equity controlled firms have a tendency to invest sub-optimally to expropriate wealth from the enterprises' bondholders. The agency cost is likely to be higher for enterprises in growing industries which have more flexibility in their choice of future investment. Hence, growth rate is negatively related with long-term debt level (Jensen and Meckling 1976). This theoretical result is backed up by the empirical studies carried out by Kim and Sorensen (1986), and Titman and Wessels (1988) but Kester study rejected this relation (1986). Pecking order theory, contrary to the agency cost theory, shows the positive relation between the growth rate and debt level of enterprises. This is based on the reasoning that a higher growth rate implies a higher demand for funds, and *ceteris paribus*, a greater reliance on external financing through the preferred source of debt (Sinha 1992). For, pecking order theory contends that management prefers internal to external financing and debt to equity if it issues securities (Myers 1984). Thus, the pecking order theory suggests the higher proportion of debt in capital structure of the growing enterprises than that of the stagnant ones. Chung (1993), Chaplinsky and Niehaus (1990) showed the evidence contrary to the pecking order theory.

3. Business risk

Both agency and bankruptcy cost theories suggest the negative relation between the capital structure and business risk. The bankruptcy cost theory contends that the less stable earnings of the enterprises, the greater is the chance of business failure and the greater will be the weight of bankruptcy costs on enterprise financing decisions. Similarly, as the probability of bankruptcy increases, the agency problems related to debt become more aggravating. Thus, this theory suggests that as business risk increases, the debt level in capital structure of the enterprises should decrease (Taggart 1985). Studies carried out in western countries during 1980s show the contradictory evidence in this regard (Martin and others 1988). The studies carried out in India and Nepal also show the contradictory evidence on the relation between the risk and debt level. Sharma (1983) and Chamoli (1985) show the evidence against, and Garg (1988) and Paudel (1994) do for the relation consistent with the bankruptcy and agency cost theories.

4. Profitability

The state trade-off hypothesis pleads for the low level of debt capital of risky firms (Myers 1984). The higher profitability of firms implies higher debt capacity and less risky to the debt holders. So, as per this theory, capital structure and profitability are positively associated. But pecking order theory suggests that this relation is negative. Since, as stated earlier, firm prefers internal financing and follows the sticky dividend policy. If the internal funds are not enough to finance financial managements of the firm, it prefers debt financing to equity financing (Myers 1984). Thus, the higher profitability of the enterprise implies the internal financing of investment and less reliance on debt financing. Most of the empirical studies support the pecking order theory. The studies of Titman and Wessels (1988), Kester (1986), Friend and Hasbrouck (1989), Friend and Lang (1988). Gonedes and others (1988) show the negative relation between the level of debt in capital structure and profitability. Indian and Nepalese studies also show the same evidence as foreign studies do (Baral 1996). Only a few studies show the evidence in favor of static trade-off hypothesis contention.

5. Dividend payout

The bankruptcy cost theory pleads for adverse relation between the dividend payout ratio and debt level in capital structure. The low dividend payout ratio means increase in the equity base for debt capital and low probability of going into liquidation. As a result of low probability of bankruptcy, the bankruptcy cost is low. According to the bankruptcy cost theory, the low bankruptcy cost implies the high level of debt in the capital structure. But the pecking order theory shows the positive relation between debt level and dividend payout ratio. According to this theory, management prefers the internal financing to external one. Instead of disturbing the high dividend, and meeting the financial need for debt capital, management retains the earnings. Hence, the lower dividend payout ratio means the lower level of debt in capital structure.

6. Debt service capacity

The higher debt level in capital structure increases the probability of bankruptcy and bankruptcy costs of the enterprises. Probability of bankruptcy refers to the chances of cash flows to be less than the amount required for servicing the debt. The debt service ratio measured by the ratio of operating income to total interest charges indicates the firms' ability to meet its interest payment out of its annual operating earnings (Keoun and others 1986). Therefore, the higher debt service ratio shows the higher debt service ratio shows the higher debt capacity of the enterprises. Hence, the debt capacity theory suggests the positive relation between the debt service capacity and capital structure of the enterprises. But contrary to this theoretical relation, empirical studies show the negative relation (Bhat 1980).

7. Operating leverage

The use of fixed cost in production process also affects the capital structure. The high operating leverage-use of higher proportion of fixed cost in the total costs over a period of time-can magnify the variability in future earnings. Both the bankruptcy cost theory and agency cost theory suggest the negative relation between operating leverage and debt level in capital structure. The bankruptcy cost theory contends the higher operating leverage, the greater the chance of business failure and the greater will be the weight of bankruptcy cost on enterprise financing decisions.

Similarly, as the probability of bankruptcy increases, the agency problems related to debt become more aggravating. Thus, these theories suggest that as operating leverage increases, the debt level in capital structure of the enterprises should decrease.

The function of the finance has described that the financial management main aim is to execute all the activities that will fulfill the requirement of the enterprise. Such fulfillment refers to activities of identifying and arranging the funds. Every enterprise needs fund in various activities that they operate, such fund financing can be obtained from various sources and the sources are classified into three types according to the period of maturity. They are:

1. Long term financing
2. Medium term financing
3. Short term financing

The study entitled “**Short Term Financing : Practice, Problem And Perspective in Nepalese Joint Venture Bank with Special reference to NABIL Bank Limited and Standard Chartered Bank Limited**” has focused on short term financing sources provided by commercial banks in Nepal. The study is concentrated in describing the types, sources, characteristics, advantages, disadvantages and factor related with short term financing in terms of its practice , problem and future perspective in Nepal. Thus the literature part if the study is abstracted from various books, articles journals and internet references.

At the first the conceptual presentation of the short term financing is presented along with the impact, relation and future opportunities in Nepalese economy.

Concept of short term financing

Every enterprise needs finance in their various operational activities. In order to fund them the financial management select the source the source of financing considering the facts like time span, cost, collateral, flexibility etc. generally activities like purchase processing, transactional need and opportunity need and contingency need require funds for very short period of time. For that type of financing long term financing is inappropriate thus finance supply having

lesser/short period is required. And to fund such period of financial arrangement financial institution provide a short period financing with a agreement of the repayment within one year or less. Such types of financing are called as short term financing. In the situation of capital inadequacy and liquidation shortage financing that is provide for short period of maturity is known as short term financing. Most often commercial banks and other financial institution provide such short term financing in form of overdraft, revolving credit, trade credit, trust receipt, transaction loan and other financing against collateral like fixed deposit in other banks, raw materials, finished goods and inventory. According to Albert Ralph Koch (1943) when a concern decides to expand its plant, increase its inventory, or extend additional credit to customers, it may borrow from a bank or finance company secure credit from suppliers, retain more of its cash sales dollars within the enterprise, or sell stocks and bonds. Thus short term borrowings, funds retained from operations, and security sales are the major sources of funds utilized by business enterprises to finance their fixed and working capital requirements during periods of increasing business activity. The specific source of funds utilized may or may not be a matter of choice. In some growing profitable industries (for instance, the automobile industry), the major part of capital expenditures has been financed out of funds retained from operations. It is generally practiced by commercial banks in both secured and unsecured way. In Nepal, now big business houses who huge importer or exporter uses short term are financing for their transaction. For most companies, short term financing is the principal means by which assets are funded. There are numerous types, ranging from spontaneous credit in form of account payable and accruals to negotiated, interest – bearing debt. The proportion of short term versus long term financing is the function of the company's fund requirement. Seasonal versus more permanent as well as the aggressiveness of management in matching its financing with its fund requirement. Before considering various types of short term financing we need to sketch out a conceptual framework for addressing the financial structure. Financial structure refers to the composition of all sources and amount of fund collected to use or invest in business. In other words, financial structure refers to the capital and liabilities side of the borrowers balance sheet and assets side of lender i.e. bank or financial institution. It is different from capital structure which only includes the

long term source of financing while financial structure includes both long term and short term source of financing.

Short term financing consist all the liabilities or obligation that are originally scheduled for repayment in period of one year or less. Even though short term financing is repaid within one year, some source provide fund that are continuously rolled over. However commercial banks other financial institution required the firm to clean up (zero balance) its short term obligation. Short term financing disbursed by bank and other financial institution to the firm for financing inventories requirement, transaction related financing that is of self liquidating nature because of sales of goods provide the cash to repay them. Short term financing services/sources are also provided by banks for firm to meet regular daily expenses like wages, salary, repair and maintenance. They also are used to take advantage of cash discount and seasonal purchase. Firms who need Short term bridge loan to finance and purchase new equipments or projects are also served by short term financing as interim financing until purchase is completed and long term financing is arranged.

Need of Short term financing

- 1. Transactional need:** The business requires fund to meet its day to day financial requirement such as: For purchasing raw material and goods, making payment for acquiring and manufacturing goods i.e. carriage, freight, wages and for meeting selling and distribution expenses such as salaries, rent, insurance and advertising etc.
- 2. Opportunity need:** The financial management should also plan arrangement of fund availing of the business opportunities. It requires funds for making profitable investment such as purchasing raw material in huge quantities.
- 3. Contingency need:** Provision of funds is also required for unforeseen and uncertain situation i.e. huge amount of bad debts, withdrawal of credit facility by suppliers and change in the fiscal policy of the government.

Advantages of Short term financing

1. **Speed :** A short-term can be obtained much faster than a long-term one. For instance, raising fund through bond issue requires registration of bond selection of issue manager, issue of bonds, allotment of bond etc. But a short term loan does not require such a long process.
2. **Flexibility:** If the funds are needed for seasonal or cyclical purposes, a firm may not want to commit itself to long-term debt for three reasons:
 - # Flotation costs are higher for long-term debt than for short-term credit.
 - # Long-term loan agreements always contain provisions, or covenants, which constrain the firm's future actions. Short-term credit agreements are generally less restrictive.
 - # Although long-term debt can be repaid early, provided the loan agreement includes a prepayment provision, prepayment penalties can be expensive. Accordingly, if a firm thinks its need for funds will diminish in the near future, it should choose short-term debt.
3. **Cost:** Interest rates are generally lower on short-term debt. Thus, under normal conditions, interest costs at the time the funds are obtained will be lower if the firm borrows on short-term rather than a long-term basis.
4. **Restriction:** The short term financing may have less restrictive convenience than long-term financing agreement for example restriction on additional borrowing in bond contract.
5. **Collateral:** Short term financing may not require collateral or security. But most of long-term loans require specific assets as collateral. Generally, current assets are used as collateral to obtain short-term loan.

Disadvantages of Short term financing

1. **Financing:** Whenever a company needs relatively large amount of finance its current assets or working capital, only short term financing may not be sufficient. Short term credit can be used to raise limited amount of funds. When

the company requires larger amount of funds, it should use long term sources of financing. Therefore it is very limited in the usage of financing.

- 2. Risk:** From borrower's point of view, short term financing is riskier than long term financing. Short term financing exposes greater risk for two reasons :

Interest rate on long term financing is relatively stable over time, but interest expenses can fluctuate widely during the given period of time. Many firms that had borrowed heavily on a short term basis simply cannot meet their rising interest costs, and as a result firms may inter into bankruptcy.

The firm which borrow heavily on short term basis, a temporary recession render it to be unable to repay the debt. If the borrower is in a weak financial position, the lender may not extend the loan, which could lead the firm into bankruptcy.

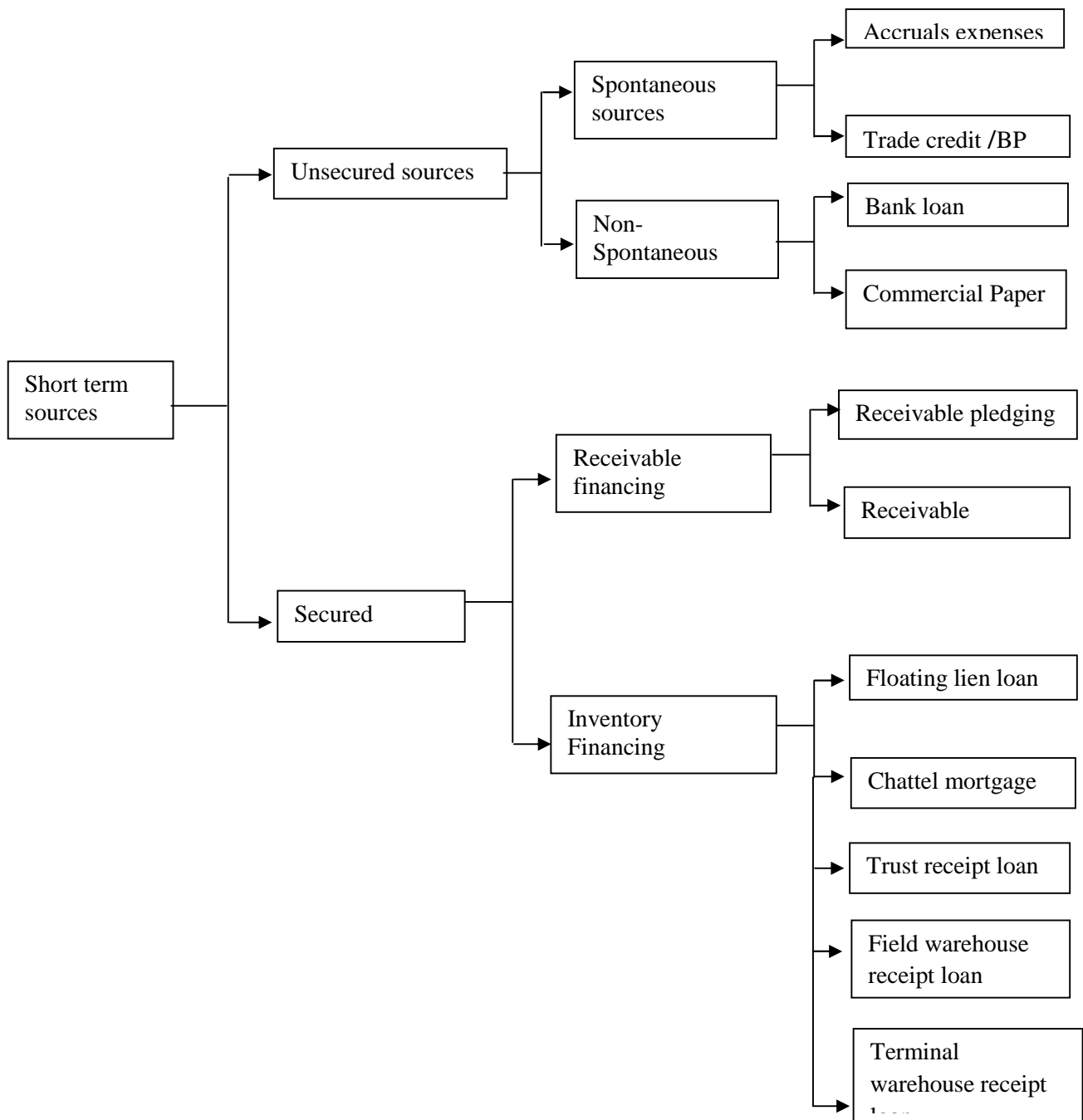
Fluctuation in interest: If a firm borrows on a long-term basis, its interest costs will be relatively stable overtime, but if it uses short-term credit, its interest rates will fluctuate widely, at times, going quite higher.

Sources of Short term financing

Various source of short term financing are available to the firm by commercial banks and financial institutions. These sources may be grouped as spontaneous and non-spontaneous sources (negotiated financing). Spontaneous sources of financing, which arise naturally as a part of doing business include trade credit and other payables. As the firm's sales increased, account payable increase in response to the increased purchases required to produce at higher levels. Similarly, in response to increasing sales, the firm's accrual increase as wages and taxes rise due to greater labor requirement and increased taxes on the firm increased earning. Thus account payable; accruals are spontaneous sources of short term financing. The negotiated sources are arranged form formal basis. Bank loan commercial papers and note payable are the major sources of negotiated source of short term financing.

Short term financing can also be classified as secured and unsecured sources. Where secured sources required collateral and unsecured sources does not requires the collateral.

The following chart presents a clear picture of source of short term financing



Note: BP = Bills Payable

Fig No. 0

Accruals: - Accruals are popularly known as outstanding expenses in an organization. Accrued expenses, for example, accrued wages, salaries, taxes, interest etc. represent liabilities for services rendered to the firm that have not yet been paid for by the firm. The accruals are considered as an important source of

short term financing and they are also the spontaneous interest-free source of financing. The longer the payment period of the wages the more cost and the less fund can be generated but because of the possibility of shifting of employees and pressure of the labor unions, the company cannot easily lengthen it.

Trade Credit Financing: - The purchase of goods can take place in two ways : cash purchase and credit purchase. Under cash purchase cash is paid at the time but at the credit purchase cash is paid after some period after the goods is purchased under certain terms and condition. The payable amount is called trade credit or as account payable. If the firm pays the bill a certain number of days after the date of invoice, trade credit becomes a built in source of financing. The amount of financing varies with the production cycle. As the firm increases its production and corresponding purchases, account payable increases and provide the part of the fund needed to finance the increase in the production. In the most other types of short term financing, it is necessary to negotiate formally with the lender over the terms of the loan. The lender may impose restriction on the firm and seek a secured position. Restriction is possible with trade credit, but they are not nearly as likely. With other source of short term financing, there may be a lead time between the times of the need for the fund is recognized and the time the firm is able to borrow them. Trade credit is more flexible means of financing. The firm not has to sign note, pledge collaterals, or to adhere to a strict payment schedule on a note. A supplier views as occasional delinquent payment with far less critical eye than does a banker to other lender. The advantage of using trade credit must be weighed against the cost. As we have seen, the cost may be high when all the factors are considered. Many firms utilize other sources of financing in order to able to able to take advantage of cash discount. The saving in cost over other forms of short term financing however must offset the flexibility and convenience of trade credit. For certain firms there are no alternative sources of short term financing.

Money Market Credits

Commercial Papers: - It is a short term debt obligation (money market instrument) and is issued by private sector or government sponsored financial institutions. It consists of a fixed maturity period and usually issued on discount. The paper has life time of less than or equal to one year. Generally the terms of

commercial paper are not negotiable but issuer can pre pay the amount if necessary. Commercial papers are usually unsecured, only highly reputed company and credit worthiness companies are able to take advantages of this source of fund. The commercial paper can be sold directly by the issuing company or through commercial papers dealer. The principle advantage of commercial paper as a source of short term financing is that it is generally cheaper than short term business loan from a commercial banks. Depending on a interest rate cycle, the rate on a commercial paper may be as much as several percent lower than the prime rate of banks loan to high quality borrowers. Commercial papers dealers require borrowers to maintain line of credit at bank in order to backstop the use of commercial paper. This assures them those commercial papers borrowing can be paid off.

Banker's Acceptance: - It is the promissory note issued by the business debtor, with the stated maturity date, arising out of business transactions. This starts as an order to a bank by the banks customer to pay some of money at a future date, typically within six months. When the bank endorsed the order for payment as accepted it assumes a responsibility for ultimate payment to the holder of the acceptance. At this point, the acceptance may be treated in secondary markets like any other claim on the bank. The presence of an active and viable banker's acceptance market makes possible the financing of foreign trade at interest rates approximating those on commercial paper. Although the principles by which the acceptance is created are the same for foreign and domestic trade, a smaller portion of total banker's acceptance outstanding is domestic. In addition, to trade, domestic acceptance financing is used in connection with the shortage of such things as grain.

SHORT TERM BANK LOANS

Unlike accruals and trade credit, bank loan is non spontaneous, interest carrying and negotiated credit. Short term bank loans from bank appear as notes payable in the balance sheet of the borrowing firm and assets side of the bank. Commercial banks provide unsecured short term credit as

1. Transaction loan

2. Line of credit

3. Revolving credit agreement

Maturity of all types of these loans is normally one year or less.

1. Transaction loan: - Transaction loan is made for a specific purpose and period of time. A transaction loan can be obtained from a commercial bank by accredited worthy customers. It is also called single payment notes as principal and interest, generally paid in a single payment at specific maturity period.

2. Line of credit: - A line of credit is an informal agreement between a bank and borrower specifying the maximum amount of unsecured credit that the bank will make available for the (borrower) firm over a given period of time. The bank does not have legal commitment to supply when the firm requests them, but banks tend to feel morally obliged to provide the loan up to the agreed amount. It is usually negotiated or established for a one year period and subject to one year renewals. The amount of line of credit i.e. the maximum amount of the firm can owe the bank at any point is based on the bank's assessment on the creditworthiness of the borrowing firm. Line of credit may also maintain a minimum balance (compensating balance) in a demand deposit account throughout the period. If the borrower's year end statement date is 31st December, a bank may set its line to expire sometime in March. At the time, the bank and the company meet to discuss the credit need of the firm in the coming year in light of its past year performance. The amount of line is based on the bank's assessment of the credit worthiness and the credit need of the borrower. Depending on changes in these conditions, a line of credit may be adjusted at the renewal date of before, if condition necessitates a change.

3. Revolving Credit Agreement : - A revolving credit agreement is a formal, or guaranteed, line of credit. In other words, revolving credit agreement is a legal commitment by a bank to extend credit up to a stated amount. Like line of credit, under revolving credit agreement interest is charged on average amount used. But revolving credit agreement often requires the borrower to pay a commitment fee on the unused amount of the funds. This fee is normally in the range of 0.25 to 1%. Assume, if the revolving credit is Rs. 10 million and 5 million is already owed, the

borrower can borrow an additional 5 million rupees at any time. For the privilege of having the formal commitment the borrower has to pay a commitment fee on that very 5 million that is unused. Thus revolving credit arrangement frequently extend beyond one year, because lending arrangement of more than one year must be regarded as intermediate term or long term but the period of its legally usage is one year or less than thus it can be regarded as short term loan.

INVENTORY FINANCING

This financing is the secured short term financing. Inventories are commonly used as collateral for the short term financing. Firms hold three types of inventories: raw materials, work in progress (semi finished goods) and finished goods. However, only raw materials and finished goods reasonably liquid assets and are therefore suitable as collateral (security) for the short term loan. The amount of loan that can be obtained depends on both the marketability and durability (perish ability) of the inventory. Highly marketable and durable goods are good for collateral and relatively larger amount of loan can be obtained using these goods as collateral.

1. Floating liens: - The floating liens give the institution a general claims (liens) against all of the firm's inventory including future inventory. However, the borrower maintains full control of the inventories and is free to sell and replace those inventories. The floating lien is also called blanket lien is often employed when the average value of inventory item is relatively low, the inventory turns over frequently, the average level of inventory is relatively stable and it is difficult to identify inventories individually. Floating lien does not offer the lender much protection against losses from fraud and bankruptcy. Therefore, lenders generally advance less than 50% of book value of average inventory.

2. Chattel mortgage: - Under chattel mortgage agreement inventories are identified specifically by serial number or by some other means. Like floating lien, borrower holds title of the goods inventory and lender has a lien of inventory. But, these inventories cannot be sold without the lender's consent.

Trust receipt loans

A trust receipt loan is a security agreement under which the firm holds the inventory in trust and remits the proceeds from its sale to the lender. The borrower

is free to sell the merchandise but whenever a portion of the inventory is sold, the borrower is required to immediately forward the proceed along with accrued interest to the interest. This type of lending agreement, also known as the floor planning, is typically suitable for automobile, equipment, consumer durable goods. All the inventory items under trust receipt agreement must be readily identified by the serial number of the inventory code numbers. Lender makes periodic, unannounced inspections of the inventory to make sure that the firm has the collateral and has not withheld payment for inventories that has been sold.

3. Field warehouse receipt loan: - under a field warehouse receipt arrangement the lender (banks) hire the field warehousing company to set up a warehouse on the borrower's premises. The inventories used as collateral are separated from the firm's other inventories and placed under the control of a field warehousing company. The field warehouse company issues a warehouse receipt, and the lender advances the fund to the firm.

4. Terminal (or public) warehouse receipt loan: - Under terminal warehouse receipt arrangement inventories pledged as collateral are stored in a public, or terminal warehousing company. When the inventories are delivered to the warehouse, the warehouse company issues the warehouse receipt, which evidence title to specific goods that are located in the warehouse. This warehouse receipt is forwarded to the lender institution, which then advances the fund to the borrower firm.

ACCOUNT RECEIVABLE FINANCING

Account receivables represent money owed to a business by the individuals or firms to which it has extended credit. It is one of the most liquid assets of the firm, which can be used as security/collateral for a short term loan. Two basic procedures can be used in arranging for financing based on receivables: Pledging and Factoring.

1. Pledging Account Receivables:- Under pledging arrangement, the borrower simply pledges accounts receivables as collateral for a short term loan obtained from financial institutions. The pledging of account receivables is characterized by the fact that the lender not only has a claim on against the receivables but also has

the resource to the borrower, which means that the person or firm whose account receivables are pledged does not pay, the selling firm (borrower) rather than the lender must bear the loss. Therefore, the risk of default on the pledged accounts receivable remains with borrower. An account receivables loan can be on either non notification or a notification basis. Under the non notification basis, a customer whose accounts have been pledged as collateral is not notified of this action. Pledging of account receivables are normally made of non notification basis. However, a pledged of account receivable can be made a notification basis, under which customer is notified to remit the payment directly to the lender (bank).

2. Factoring Account Receivable :- Factoring account receivable involves the outright sale of the firm's account at a discount to a factor. A factor is a financial institution or a professional that purchases account receivable of the other firm. In pledging account receivable, the firm still retains the title to the receivables. But when a firm factors its receivable, it transfers title of the receivable by actually selling them to a factor. A factoring agreement normally states the exact conditions, charges and procedures for the purchase of account receivable. Under factoring, the customer who had purchased the goods typically is notified of the transfer and is asked to make direct payment to the factor. In addition, most sales of account receivable to a factor are made on a non recourse basis (without resource). This means that if the purchaser of goods does not pay for them, the lender (factor) rather than seller of the goods (borrower) absorbs the loss. Under normal factoring arrangement, when the seller receive an order from the buyer, a credit approval slip is written and immediately sent to the factoring company for the credit checking the factor maintains a credit department to perform the credit checking and collection functions. Once the factor decides that the customer is an acceptable risk and agrees to purchase the receivable, the firm ships the order to the customer.

Facts considered for selection of bank

A business that borrows the fund from banks must consider some factor and criteria. A potential borrower seeking banking relation should recognize some facts that will help the business to operate and grow.

1. Cost: – Cost of the loan is the important factor while choosing a bank. Generally, the financial manager seeks to minimize the cost of financing, which

usually can be expressed as an annual effective interest rate, therefore, the bank with the lowest interest is chosen for the business.

2. Flexibility: – When difference in cost of different bank is very low, the firm can select the sources having more flexibility. Some sources are more flexible than other. The flexibility for expansion and availability can be the other major fact for choosing the banks.

3. Advice and counsel: – Some banks loan officers are active in providing counsel and in stimulating development loans to the firm in their early and formative years. Certain banks have specialized department that make loans to firms expected to grow and thus to become more important customer. The personnel of that department can provide valuable counseling to the borrower and customer for the appropriate of selecting the loan to their development.

4. Loyalty to customer: - Bank differs in the extent to which they will support the activities of borrower in bad times. The characteristics are referred to as the degree of loyalty of the banks. Some banks might put great pressure on a business to liquidate its loan when the firm's outlook becomes clouded. Whereas other will stand by the firms and work diligently to help it gets back in its feet.

5. Specialization: – Bank differ greatly in their degrees of loan specialization. Larger banks have separate departments for specialize in different kinds of loan: for instance real estate loans, farm loans and commercial loans. Within these broad categories, there might be a specialization by line of business, such as steel, machinery, cattle and textiles. The strength of bank is likely to reflect the nature of the business and the economic environments in which they operate. A sound firm can obtain more creative cooperation and more active support by going to a bank that has experience and familiarity with its particular type of business. Therefore, a bank that has a n excellent for one firm might be unsatisfactory for another. Therefore, the specialization in the variability to different types of firm is necessary fact that has to be considered in selecting a bank.

6. Restriction: – Some banks are more apt to impose restriction on the firm than others. Restriction might include limit on amount of additional debt, amount of cash dividend, management salaries, and capital expenditure. Financial managers

prefer less restrictive source of financing. Thus the constraint of loan restriction should be considered while choosing a bank for any business.

7. Requirement of collateral: – While operating a firm whenever a firm needs fund may not have collateral or guarantee. At the time the relation and the requirement of collateral by a bank can be crucial. Because firm may suffer some capital inadequacy and at the time how the bank secured and disburses the required amount is a major question for any firm. Thus amount and need of collateral is the major fact while selecting a bank.

2.2 LITERATURE REVIEW

Practice of short term financing in less developed countries like Nepal

Developing countries rely on short term trade credits for several essential consumer goods imports, such as medicines and basic food supplies: They are also vital in facilitating transactions related to the country's exports. The mechanisms adopted in the provision of trade credits from commercial banks to developing countries are often complex and costly for borrowers in developing countries. A break in the flow of short term trade lines, even a temporary one, could have severe adverse implications on the business of trade in the developing countries. Given that the short term trade credits can easily be structured such that they involve few risks for the banks while being extremely costly to the debtor, they are generally the last form of credit to be cut and the first to be reestablished in debt-distressed developing countries. In an endeavor to gauge the likelihood of future short term trade-related financial flows from commercial banks to developing countries, the determinants of short term lending by commercial banks into the less developed countries (LDCs) like Nepal and the future perspective to the Nepalese economy.

Literature on this subject as well as reliable data for LDCs is scarce, partly due to the fact that countries were not required, until recently, to report detailed information on their short term obligations to commercial banks by the reporting agencies (such as the World Bank's Debtor Reporting System). Available information was sketchy and often too aggregate to allow for any meaningful analysis. Even though these factors have made the study difficult, the availability of more recent data on few LDCs commercial banks have made it worthwhile to

embark on a more rigorous analysis of the determinant of short term commercial bank lending to developing countries. In this study, the factors that significantly affect short term lending by selected banks of LDC like Nepal are examined in an endeavor to determine whether these have changed over time. We begin with a brief discussion on the trends in lending to LDCs from the private creditors. In general, the study has focus on the behavior of short term commercial bank lending to LDCs, in particular. The circumstances in which the commercial banks of the LDC like Nepal that have been selected for this study are highlighted in this context. Alternative hypotheses on the possible determinants of short term commercial bank lending to LDCs are postulated. These hypotheses have been formulated on the basis of our findings from numerous interviews with market participants in financial institutions and officials in the central banks of certain LDCs. The results of the econometric analysis using pooled cross-section and time series data for our sample of countries are provided in Section V of the paper. The basic conclusions and recommendations for areas of further analysis in this context are provided in Section VI. A discussion on the alternative sources and definitions of the data used and a list of variables used in our economic analysis of short term credits is provided.

Overview of Trends in Lending to LDCs (Historical Evidence)

When speaking of the sources of external financing to less developed countries (LDCs) history has been known to repeat itself. The situation in the nineties mimics that of the sixties, when official creditors played a dominant role in this area. Before 1970, more than 50% of the medium and long term (MLT) external debt of developing countries was owned official creditors while commercial bank debt and bonds accounted for about 32% and 5% respectively. In the 1970s and early 1980s, financing from private creditors in the form of direct syndicated lending (as opposed to equity participation) to developing countries increased dramatically as the market for international bank credit gained a competitive advantage over the securities markets in challenging the surpluses of oil exporting countries toward LDCs. By 1982, the pre-1970 situation was reversed with commercial banks holding 50% of the MLT external debt of LDCs, while official creditors held 35% of the debt. After 1982, against a background of high interest rates and deteriorating terms of trade combined with inappropriate policies and drastic cut-

backs in new lending by commercial banks, a number of LDC borrowers underwent servicing problems and were forced to enter into repeated debt rescheduling agreements and concerted new money exercises. In total, medium and long term commitments from commercial banks to developing countries fell from \$42 billion in 1982 to an average of \$14 billion per annum between 1983-88. By 1988 the share of commercial banks in long term external debt for developing countries as a whole had fallen to around 40%. The fall in volume of syndicated loans to LDCs reflects the determination of international banks to reduce their exposure to developing countries, not only through drastic reductions in the pace of lending but also through various innovative market related financial engineering techniques such as debt conversion schemes. To a large extent, the banks increasing concern with exposure levels has stemmed from the pressure exerted on them by the terms of the Basle Agreement of July 1988. The agreement addresses the principles concerning the international convergence of capital measurement and capital standards in the financial institutions of the Group of Ten nations. These principles set target figures for the ratio of capital to a risk-weighted sum of assets and off-balance sheet exposure culminating in a level of 8% by 1992. Many of the major banks need to increase their capital in order to meet the targets. Ways of achieving such increases includes higher profits and new issues of equity, neither of which is compatible with new lending to LDCs. The curtailment of new bank lending to LDCs has increased the role of official creditors in the international capital market arena. Official debt including the use of IMF credit now accounts for about 46% of the debt of LDCs compared with 32% in 1984. At the same time, the critical debt situation and the highly unfavorable impact of the “debt overhang” on the economic performance and living standards in developing countries has given fresh impetus to alternative approaches to solving the debt problem. Prominent among these proposals was the provision of debt relief through the reduction in the stock of debt or in debt service payments. These were the central features of the initiative launched by the United States Secretary of the Treasury – Nicholas Brady in March 1989. The most important debt restructuring schemes implemented under the auspices of “Brady Initiative” were those of the Philippines, Mexico, and Costa Rica, which reduced the stock of commercial bank debt for the three countries taken together by \$9.5 billion. A notable feature of recent agreements is the paucity of new concerned lending by private creditors to LDCs. Banks have responded to

the pressure on them to supply resources by searching for alternatives to new money, a search that gave rise to a variety of instruments tuned to the specific interests and constraints of commercial banks, such as debt conversions, exchange offers with or without collateralization, debt buy-backs and exit instruments. In particular, debt conversion operations have become very important recently, especially in conjunction with ongoing privatization programs, and may be expected to continue to be strong for several countries in the period ahead. Debt equity conversion provisions have become important components of recent bank financing packages as a result of accelerated efforts by LDC governments to attract foreign investors. The Argentinean government, for instance, has sharply stepped up the pace of debt-equity conversions as it seeks to privatize and recapitalize the country's state-owned enterprises. Recent debt conversions in the Philippines were also largely associated with privatization operations under debt for assets schemes. The sectors eligible for investment under the scheme included bank privatizations and export, energy and agricultural ventures. Such debt conversion schemes are also gaining importance in Africa and Eastern Europe as well. Finally, the increased use of market based debt reduction instruments has been facilitated by and, in turn, contributed to a marked growth in the importance of the secondary market for the external debt of developing countries. The volume of nominal claims traded on the secondary market is estimated to have reached around \$70 billion in 1990 from around \$60 billion in 1989. Banks seeking to restructure their portfolios to reduce their exposure levels account for much of the market's volume. However, non-bank institutional investors, motivated by perceived high yields, are also becoming very active in the secondary market for LDCs debt III. The evolution of Short-term lending to LDCs. The decline in syndicated lending by commercial banks to developing countries and the efforts of the countries themselves to tackle their debt overhang problem via debt reduction and debt conversion schemes is a phenomenon which has been widely covered in the recent literature (e.g. see Sachs (1989)). On the other hand, very few studies have analyzed the market for short-term lending to LDCs. The role of short term trade credit continues to be important to LDCs. The role of short-term trade credit continues to be important to LDCs, even though the volume of MLT financing from private creditors is on the decline. There are a variety of instruments, with varying degrees of complexity, that are being used by banks to provide short-term

credit to LDCs. Apart from the traditional letters of credit, creative new instruments have been developed to finance LDC trade. Moreover, the “bundling” and “securitization” of short-term loans has allowed bankruptcy in the trade financing business, without considerably increasing their exposure. As a result of the increasing dynamism and sophistication of the market for short-term finance, commercial banks short-term claims on major non-industrial borrowers have increased from about \$75 billion at the end of 1978 to about \$185 billion at the end of 1990. The increasing importance of short-term commercial bank lending to the heavily indebted developing countries is also observed in the case of export credits that are insured by creditor government or their agencies (which may fall under the auspices of the Paris Club in the case of credits OECD creditors). Generally, short-term insured credits have not included in Paris Club rescheduling. This has motivated banks to extend insured short-term loans to developing countries, which are subsequently rolled over, to finance investment projects (which should typically be financed by medium and long-term loans). In this way banks can reduce the risk of having to reschedule their insured credits to developing countries at the Paris Club. The purpose of this paper is to discover some of the unknown in the short term lending equation. This study will concentrate on the factors that significantly affect short term lending by banks to LDCs in an endeavor to determine whether these changed over time and across countries. For this purpose, a sample of seven countries was selected, namely, Argentina, Brazil, India, Kenya, Mexico and Turkey. This sample was chosen partly because it provides a wide geographical coverage and, above all, because it is a heterogeneous sample of countries in terms of their growth and external debt experiences. Argentina, Brazil and Mexico were important beneficiaries of the enormous flows of syndicated loans to LDCs during the late 1970s which resulted from the need to recycle the growing stock of petrodollars in the international capital markets. After a period of overvaluation of their domestic currencies and rising domestic interest rates all three countries experienced debt servicing problems and had to reschedule their debts. Moreover, both Mexico and Brazil declared a moratorium on their debt on 1982 and 1987 respectively.

In the last month of 1982, the Mexican government reached an agreement with the commercial bank creditors in which they agreed to reschedule \$23 billion of claims

due in 1982-84 and to provide \$5 billion in new money. In the case of Brazil, in 1988 the banks agreed to reschedule \$61.5 billion of their claims over 20 years and to provide further loans of \$5.2 billion. In the last few years, these three countries have looked for ways to reduce their debt overhang and improve their economic performance. While Mexico and Argentina have proved considerably successful, Brazil has still got a long way to go. Turkey was one of the first countries whose commercial bank debt restructuring agreement was negotiated with the participation of a third party - the International Monetary Fund. Rescheduling amounting to \$9.6 billion was concluded during 1978-82. Since then Turkey's major debt indicators have improved significantly, contributing to the international community's increased confidence in the credit-worthiness of Turkey. The debt to GDP ratio has fallen from a peak of 60% in 1987 to 42% in 1990, reflecting both the recent rapid income growth and appreciation of the Turkish lira. Turkey's total debt to export ratio has declined steadily from over 330 percent in 1980 to 247 percent in 1987 and to 178 percent in 1990. Moreover, Turkey's access to the commercial markets has improved significantly. With full repayment of both the IMF and the previously rescheduled commercial bank debt service obligations, accompanied by the significant build-up of reserves in 1989. Egypt has been, for the most part, unsuccessful in avoiding repeated rescheduling and debt servicing problems. By 1990, with an external debt of \$50 billion, Egypt has become one of the developing world's largest debtors. Most of this debt has not been contracted from commercial banks, but is debt on concessionary terms, consisting of development loans from governments and international institutions or trade credits (for the most part guaranteed by official export credit agencies). Annual repayment obligations amount to \$4-5 billion. Egypt's commercial bank debt is estimated at \$1.5 billion, including publicly guaranteed long-term debt of \$389 million. In 1990, several projects for debt conversion (usually in conjunction with privatizations) have been undertaken by the Egyptian government in order to reduce the negative impact that the debt problem has had on the Egyptian economy. The results of these measures remain to be seen. For the most part, India has relied on multilateral donors to finance the development plans introduced by the Indian government. However, of late, India's foreign debt has grown significantly relative to its repayment capacity.

In particular, commercial borrowing has increased, partly as a consequence of the inability of the official creditors to fulfill India's growing need for external financing on concessional terms. The total debt was estimated by the Indian government to be round \$57 billion as of end 1990. Debt service has been close to \$6 billion in the last few years, which has meant a debt service ratio (including short-term debt) of close to 30%. Kenya is still relatively favored by foreign aid agencies, and its receipts of Official Development Assistance (ODA) have held up well, reaching \$866 million in 1988 and an unconfirmed figure of nearly \$ billion in 1989.

Inflows of aid funds have supported Kenya's public capital spending and its balance of payments deficit for so long that Kenya is described as experiencing a situation of "aid led growth." Besides the aid provided by the USA and Japan, during 1988 and 1989, aid agreements were concluded with Belgium, Denmark, Finland, South Korea and China. At the end of 1988, Kenya's total disbursed external debt was \$5.9 billion, of which \$331 million was short term, \$572 million outstanding to the IMF, \$744 million private non-guaranteed and the remaining \$4241 million is publicly. As a result of debt forgiveness from different donors, Kenya's debt service has fallen from \$696 million in 1986 to \$594 million in 1989. The total debt service has declined over the past two years, from 38.7% of exports of goods and services to 29.6% in 1986. Moreover, the terms of lending to Kenya have softened over recent years, with average interest rate on new publicly guaranteed borrowing falling from 5.1% in 1983 to 1.9% in 1988. Kenya's external debt at the end of 1989 stood at \$5.7 billion.

Literature on the demand and supply of short-term debt/financing

Literature on debt maturity issue in corporate finance

The theoretical literature on the maturity of corporate debt issues deals with the optimal investment policy. Some firms prefer borrowing on a short-term basis as a way of reducing agency conflicts and/or asymmetry of information effects. The scope of this research is largely inspired by Myers's (1977) question: why do firms borrow short-term to finance long term projects? His answer is based on the agency cost hypothesis, also called the contracting-cost hypothesis. Managers acting on behalf of equity holders may fail to exercise profitable investment options. They

will not realize projects with positive net value when debt captures an excessive portion of equity holder's benefit. The conflict between debt holders who capture the benefit and managers may have negative consequences for firms with a large set of growth opportunities. Myers considers that shortening the debt maturity structure or, to be more accurate, "policy of rolling over short maturity debt claims" gives flexibility and, therefore, is one way of preventing firms with more growth opportunities from adopting suboptimal investment policies. Firms with more growth opportunities and, as consequences, more potential agency conflicts should prefer shorter maturity in order to become less dependent on monitors. Informational asymmetry causes firms that are less likely than other firms to have problems rolling over their debt to borrow on short term basis. In Flannery's model (1986), firms with favourable private information about future prospects balance between the advantages of sending a signal of quality, if they choose a short maturity, and the expected costs in rolling over short-term debt, due to transaction costs and higher interest rates if they are downgraded. In Diamond's model (1991), firms with a sufficiently good credit rating balance between the advantage of being refinanced at lower cost when good news arrive and the risk that sound projects may not be refinanced, both being associated with the use of short term debt. Flannery's model predicts a positive correlation between debt maturity and underlying asset risk. In Diamond's model debt maturity is a non monotonic function of the risk rating because low rated firms have no choice but to borrow on a short term basis so that issuing longer term debt is preferred by the firms with a medium rating. Shortening maturities increases the sensitivity of the financing most to new information. This type of "bridge financing" allows investors to refinance at higher (lower) cost in times of bad (good) news and, even, to refuse to refinance.

To sum up, in the corporate finance literature, greater information asymmetries and/or agency conflicts are associated with shorter maturity by both parties. Firms with more growth opportunities and/or lower risk than other firms should prefer shorter maturity.

Literature on credit channel

The credit channel literature displays another analytical framework in which bank's behavior matters and the short-term debt is analyzed as the mode of financing

short-term assets. According to the bank lending channel, changes in monetary policy affect, via the supply of bank loans, especially bank-dependent borrowers who face informational problems (Bernanke and Blinder, 1988). In tight money periods, while bank behavior is pro-cyclical, the corporate demand of short-term credit is not. Due to an increase in interest rate and its negative effect on interest-sensitive demand, inventories should be larger and require additional cash. Findings from U.S. data show that this reaction is only observed for large firms (Gertler and Gilchrist, 1993 and 1994). In the case of large firms, the demand for short-term bank loans and commercial paper increases in the early stages of downturns to cover the increase in current assets, while this is not the case for small firms. The latter do not demand additional short-term debt because the amount and timing of the cash flow gap are more uncertain, and they face higher informational frictions than their larger counterparts. Using a variant of a costly-state verification model, Gertler and Gilchrist (1993) demonstrate that “*it is optimal to impose a kind of credit ceiling which fixes the ratio of debt to output*”. Following a tight money shock, in the wake of declining cash flows, small firms contract their debt demand and inventories, in order to keep the ratio of debt to output in line. In Gertler and Gilchrist’s model, managers choose an optimal rate; short-term debt is independent of long term debt as short-term bank loans finance current business and is not an advantageous vehicle in downturns, as it may increase the default risk. Our empirical research does not attempt to assess the impact of a tighter monetary policy on the firms’ debt policy. However, a brief presentation of some empirical works on that topic highlights the contribution of this theory to the debt maturity issue. Empirical work on the existence of a bank lending channel is plagued by an identification problem: does a change in bank loans result from a shift in loan demand or a shift in loan supply? In an attempt to limit this identification problem, empirical studies test for a likely substitution effect among sources of short-term debt. Kashyap *et al.* (1993) find that tighter monetary policy leads to a shift in firms’ mix of external financing: firms issue more commercial paper while bank loans fall. Oliner and Rudebusch (1996) interpret these results differently and show that there is no substitution effect from bank to non-bank credit (commercial paper and trade credit) in periods of tight money but evidence of flight to quality phenomenon for all types of credit from small to large firms testifying for the broad credit channel. The broad credit channel, or balance sheet channel, (Bernanke and

Gertler, 1995) posits that the external finance premium of all forms of debt increases after a monetary contraction. This flight to quality phenomenon leads to shift of credit flows toward the less risky borrowers, i.e. those with high net worth. Consequently, it mainly affects small firms. Morgan (1998) shows that commercial bank loans without a commitment slow after a tight money period, while loans under commitment accelerate or remain unchanged. Nilsen (2002) finds that during monetary contractions large firms without a bond rating, which account for a large part of overall large firms, and small firms increase their use of trade credit, although it is an unattractive alternative to bank loans. This switch identifies the cause of the loan reduction as a supply phenomenon, supporting the bank lending channel view. Following Nilsen, the “kind of credit ceiling” faced at times of tight monetary policy is no longer a target chosen by small firms but rather a constraint imposed by banks. It is the contraction of banks “loan supply that induces a decline in small and sometimes large firms’ bank debt.

Although, all the studies on the credit channel do not converge, they tend to corroborate the core of the credit channel: during tight money periods, either borrowers’ or investors’ preferences lead to additional short-term credit being allocated to some “happy few”, i.e. large firms with a bond rating or loan commitments; as a consequence, short-term credit is countercyclical for these firms, while it is pro-cyclical for the bulk of other firms. The two strands of the literature surveyed in this section allow to distinguish two analytical frameworks: i) according to the corporate finance view, the corporate debt maturity is a matter of choice, short and long term debts being analyzed as substitutes which finance investment projects, ii) according to the credit channel view, short and long term debts are distinct vehicles which may be complementary and influenced by banks’ own characteristic. Putting together these two strands of literature brings two issues up. Firstly, the question is raised of a possible substitution or complementary effect between the two sources of debt. Secondly, is short term debt devoted or not to finance current assets? Additional issues are raised by the credit channel theory: have banks’ own characteristics an effect on the observed rate of short-term debt during a long period?

Lending Competition and Relationship Banking: Evidence from Japan

The existing theories provide us with mixed conclusions about the impact of lending competition to relationship banking. In a number of theoretical studies that model relationship banking as the acquisition of borrower-specific information by banks, it is shown that the increase in the number of competing banks in a local lending market leads to a reduction in information acquisition by these banks. This is because the additional market share that can be captured by the information advantage over rival banks decreases, and, therefore, it is more difficult to recoup the investment cost for information acquisition when the number of rivals increases (Petersen and Rajan 1995); banking as a provision of borrower-specific consulting or monitoring services to improve the probability of success of their borrowers' projects show the possibility that a bank is more likely to provide such consulting or monitoring services from outside banks (Boot and Thakor 2000; Dinc 2000; Yafeh and Yosha 2001; Marquez and Dell'Ariccia 2004). Some researchers report to empirical studies in order to answer the question of whether or not lending competition promotes relationship banking. For instance, Elsas (2005) and Degryse and Ongena (2007) find that the probability for a firm to maintain a long-term and broad-based relationship with a bank is U-shaped against the concentration measure in local lending markets in Germany and in Belgium, respectively. However, Petersen and Rajan (1995) and Montreal-Garriga (2005) find evidence for the negative correlation between lending competition and relationship banking in the U.S. Most of the empirical studies focus on the informational aspect of relationship banking by measuring its existence by the length of the relationship or by the breadth of the relationship including whether a firm purchases a particular type of bank product that generates an information advantages for the providing banks, such as checking account services. Although these measures of relationship banking are reasonable under the limited feasibility of data, we have to admit that these measures are indirect for measuring the information advantage over rival banks. The present empirical study uses a more direct measure constructed from the firm-level information about whether a firm receives firm-specific consulting services from its main bank. By using this measure, we find that such consulting services are more likely to be provided in less competitive lending markets.

Relationship between bank and borrowing firm in short-term financing

Financial institution provides most external debt financing for small businesses. Approximately 50 percent of small business finance is owner-supplied equity, another 5 percent is owner-supplied debt, about 15 percent is trade credit, and 25 percent is borrowed from financial intermediaries, principally banks (Berger and Udell 1998). Thus for most small businesses banks loom large. In fact, modern theories of financial intermediation view intermediaries as delegated monitors and are mostly theories about funding small, information ally opaque firms (Diamond 1984; Ramakrishan and Thakor 1984). To deal with information and incentive problems surrounding small business finance, intermediaries use collateral, personal guarantees, and foster long-term relationships with borrowers. Both practicing bankers and economic theorists have long argued that bank relationships are valuable. With repeated contracting with borrowers, banks continuously gather information and update their evaluations of firm credit worthiness. Information is gathered through repeat lending or the provision of deposit and other information-incentive financial services. Berger and Udell (1998, p.645) note that most small business have maintained a relationship with a bank for 9 years, and that a majority identify a commercial bank as their primary financial intermediary. Theory holds that small business that form relationships with a principal bank secure several advantages, including lower interest costs, greater credit availability, lower collateral demands, and protection against credit rationing in periods of firms distress. Yet, despite a general sentiment that firm-bank relationships are valuable, the empirical evidence remains inconclusive. This paper uses a unique contract-specific data set drawn from the records of a nineteenth century bank to analyze the value of firm-bank relationship. Such a data set has at least two advantages over widely used survey data. One potential advantage noted by Blackwell and Winters (1997) and Degryse and Van Cayseele (2000), who have recently turned to contract-specific data sets, is that focusing on a narrow set of lenders better controls for unobserved heterogeneity in bank lending standards and, therefore, borrower attributes. Second, most previous research has captured the nature of the firm-bank relationship by measuring the duration of the relationship, others include measures of relationship scope (the provision of complementary financial services) or relationship exclusively (whether the current bank is a main bank). Using

explanation for the conflicting results, made evident with this dataset, is that extended, extensive or exclusive relationships are not necessarily strong relationships. Some firms may rely on a single lender over a long period but borrower infrequently interaction, even if exclusive, is not the type of regular contracting envisioned in the theoretical literature (Boot 2000 provides a survey). Effective monitoring and screening likely requires repeat contracting at brief and regular intervals. Through regular contracting bankers realize cost economies because information is reused while it is refresh. This data set differentiates between long term and frequent contracting and shows that frequency is, in some regards, as important as duration. Specially, the results demonstrate three effects of repeat interaction on loan features: relationships reduce credit costs; frequent interaction reduces the use of collateral and personal guarantees; and long-term relationships positively affects credit availability in a financial crisis. The third issue – the influence of relationships on credit availability during a financial crisis – has received the least attention. The so-called credit-channel hypothesis (Bernanke 1983; Bernanke and Blinder 1988) implies that monetary shocks will have disproportionate effects on small, bank-dependent borrowers. Ongena et al (1999) investigate the results of bank distress on borrowing firms during the Norwegian bank crisis of 1988-1991. They find no support for the hypothesis that bank-dependent firms suffer more during a credit crunch than non-dependent firms. Their results, however, may be driven by the public's anticipation of a governmental bailout of the banking sector, which would have preserved banking relationships. This data set employs direct relationship measures and tests their effects on a bank's willingness to re contract during a financial crisis when there is neither implicit nor explicit bailout guarantees. The results show that extended relationships are, indeed, valuable. This finding has potentially important policy implications for regulations. The information approach to financial intermediation argues that intermediaries exist because they mitigate adverse selection and moral hazard problems that naturally arise in financing uncertain entrepreneurial projects. Intermediaries, particularly banks, capture economies of scale or exploit other comparative advantage in the production of information about borrowers (Freixas and Rochet 1997 provide a survey), which makes it more economic for small firms to borrow from banks than in arm's-length markets. An important branch of the information approach is the emphasis placed on firm-bank relationships. Though

quite different in approach, Diamond (1991) and Boot and Thakor (1994) develop models in which good borrowers reveal themselves, generate track records, and see their interest rates and collateral demands decline. Both approaches emphasize the benefits of developing extended firm-bank relationships and Boot (2000) outlines five potential benefits. First, lending relationships facilitate information reuse through time which encourages information production and monitoring by lenders. Second, relationships facilitate flexible, implicit long-term contracting. Third, loan contracts typically include covenants to mitigate agency costs that become suboptimal as new information arrives. Depending on relative bargaining strengths, the development of long term relationships facilitates low-cost renegotiation of covenants. Fourth, relationship lending often involves collateral or personal guarantees, and long-term contractual relationships encourage monitoring and the efficient use of costly collateral. Fifth, relationship lending accommodates the intertemporal smoothing of loan terms, which benefits young, information ally opaque firms. The two principal costs of relationship lending are the soft budget constraint problem and the informational capture problem. Soft budget constraint problems arise when the borrowing firm becomes distressed. Distressed firms often approach lenders seeking additional finance to avoid or postpone default. Knowing that banks face incentives to support the firm in order to recoup the original loan, borrowers face perverse incentives to take inefficient risks or exert insufficient effort. A second cost of relationship lending is that banks gain informational advantages over borrowing firms and long-term dealings allow banks greater opportunities to exploit their advantage. Switching costs generate quasi-rents that current lenders appropriate. Further, banks in more concentrated markets are better positioned to capture quasi-rents by virtue of their market power. Market power may benefits some borrowers. However, Sharpe's (1990) information-capture model shows that firms pay below-market loan rates early in the relationship (presumably when credit rationing for young firms without reputations is most severe) and then compensate the bank by paying above-market rates later in the relationship. If banks and borrowers can offer credible time-consistent commitments, it is optimal to offer the first-time borrower relatively low interest rates to avoid the adverse selection problem then recoup this early-period subsidization by charging supra-competitive rates later (Rajan 1998). While the interest rate effects of efficient information production and potential problems of

market power in one of the central themes of research on relationship banking, extant empirical evidence is conflicting. Using data compiled by the National Survey of Small Business finance (NSSBF), Petersen and Rajan (1994) investigate credit costs and loan availability to more than 3,000 small businesses. They find no correlation between the duration of bank-borrower relationships and the cost of credit, but they find a strong positive relationship between credit availability and relationship duration. Berge and Udell (1995) argue that Petersen and Rajan's failure to find a negative correlation between credit costs and duration results from the inclusion of transaction loans in the analysis. By focusing their analysis on lines of credit (L/Cs), a type of lending more consistent with relationship banking, Berger and Udell find that credit costs and collateral use are declining in relationship duration. However, Cole (1998) uses a later NSSBF sample and concludes, like Petersen and Rajan, that relationship duration is a more important determinant of credit availability than credit cost.

Using contract-specific data from two bank holding companies, Blackwell and Winters (1997) find no statistical relationship between relationship duration and credit costs. Similarly, Elsas and Krahen (1998), using contract-specific data from five German banks, fail to find any significant interest-cost advantage on lines of credit involving long-term bank relationships. Survey data on small firm L/Cs in Germany also fails to reveal any significant correlation between relationship duration and credit costs (Harhoff and Körting 1998). Two studies find evidence broadly consistent with the information-capture hypothesis.

Degryse and Van Cayseele (1998) gathered information on about 18,000 loans extended by a single Belgian bank to mostly small businesses. They find offsetting relationship effects. On one hand, the loan rate increases with the length of the relationship. On the other, loan rates decline with scope of the relationship, defined as the purchase of other information-intensive services from the bank. The scope effect outweighs the duration effect. Angeline et al (1998) find that at Italian banks other than credit cooperatives, loan rates tend to increase with the length of relationship. The same effect is seen for non-borrowers at credit cooperatives. Among cooperative members, long term relationships have no discernible effect on credit costs. Thus empirical studies have found conflicting interest rate effects. If extended relationships generate benefits, how then might these benefits manifest

themselves? One may be the availability of credit rather than its price. And, with the exception of Degryse and Van Cayseele (1998), all the above-cited empirical studies find a positive correlation between relationship duration and credit availability. A second benefit of long-term bank relationships may be a general decline in collateral usage.

Barro (1976), Benjamin (1978), Thakor and Udell (1991), Boot and Thakor (1994), and Rajan and Winton (1995) all contend that collateral reduces post contractual opportunism. But collateral is a costly contractual device. It increases contracting costs because it necessitates additional contractual stipulations regarding the amount and type of collateral to be provided, the creditor's right in taking possession in the event of default, and the borrower's control over the collateral during the term of the loan. Moreover, actual repossession and sale of the asset often imposes losses on the creditor as markets for some assets are thin and liquidations involve sizable opportunity costs.

Although collateral may be an important element of many loan contracts, small business finance often involves personal guarantees rather than collateral. Collateral and guarantees are similar but not equivalent devices for dealing with post-contractual opportunism. Like collateral, guarantees allow financial institutions to offer credit on favorable terms to small business where informational opaqueness might otherwise result in credit rationing or outright denial. Collateral and guarantees differ, however, in that most loan agreements involving collateral include restrictions on the use to which borrowers may put the collateralized assets and prohibit their disposal without the lender's permission. Personal guarantees, on the other hand, represent a general claim against the total wealth of the guarantors and typically do not restrict the use of that wealth. Guarantees are more valuable than collateral when the personal assets of the guarantors may be more easily valued or sold than highly firm-specific assets, or if the principal asset of the borrowing firm is the human capital of its owners. Nevertheless, guarantees generally represent a weaker pledge than specific collateral because most loan covenants do not restrict guarantors from selling or redeploying their assets, or from pledging them to another lender. Guarantees are useful, however, to the extent that they align the guarantors' and the lenders' interests.

Empirical evidence usually finds collateral usage associated with risky borrowers and risky loans (Berger and Udell 1990). This is contrary to much existing theory, which holds that good borrowers signal their better prospects through their willingness to pledge collateral. Evidence on the effects of relationships on loan collateral is mixed. Harhoff and Körting (1998) find the longer relationships involve less collateral, but Degryse and Van Cayseele (2000) find that main banks tend to demand more collateral. They argue that informational capture has both interest rate and collateral consequences. As the relationships progresses, banks become better informed about a firm's collateral and shift more default risk onto the borrower. On the other hand, better information about collateral may reduce the cost of including collateral covenants in the loan contract, which makes collateral usage more efficient. No study of the consequences of relationships on personal guarantee usage exists. The introduction of personal guarantees into the study of banks relationships represents one of the principal contributions of this research. Existing empirical studies offer broad support for the hypothesis that long-term relationships positively affect credit availability (see Ongena and Smith 2000 for a review). What these studies have failed to do is link relationship effects with credit availability during periods of sharp financial stress. Economists have long posited that a transmission mechanism linking financial sector performance to real sector outcomes, a mechanism that becomes manifest in financial crises Fisher (1933). Bernanke (1983) and Bernanke and Blinder (1988) argue that panic-induced disintermediation affects real activity by restricting the flow of financial services to borrowers without access to nonbank credit. One empirical prediction arising from this theory is that newer borrowers face tighter credit conditions than those with longer track records when both types of firms face liquidity constraints (Gertler 1988). With information asymmetries, lenders tend to know more about long-term customers. This plays a crucial role in reinforcing the financial consequences of a panic. Young and small firms rely on bank-intermediated finance because they have not developed publicly observable track records, which deny them access to arm's-length debt markets. With banks experiencing disintermediation and firms experiencing deteriorating balance sheets, lenders are more likely to renegotiate existing loans or extend new ones to long-term customers. Evidence on Japanese main banks (Hoshi, Kashyap and Scharfstein 1990) provides support for this contention. This paper investigates the behavior of one bank during a severe

financial crisis and shows that it was, in fact, more willing to re contract with longer-term borrowers.

The effects of short-term financing on borrowing firm's profitability

The importance of the determinants of corporate capital structure is well recognized in the finance and economics literature. Numerous papers investigate not only the firm's choice of leverage but also the maturity structure of debt (Guedes and Opler (1996), Ozkan (2002), Antoniou, Guney and Paudyal (2006)). Surprisingly, much less attention has been directed to the relationship between the maturity structure of firms' liabilities and their performance. This study builds on recent advances in the corporate capital structure literature on the role of the term structure of liabilities (e.g. Caprio and Demirguc-Kunt (1997)). Debt maturity structures across panels of firms within the German and the American economies are exploited to identify the mechanisms through which maturity structure affects performance. Previous research has reached conflicting conclusions on the relationship between liability maturity structure and firm performance. In contrast, our empirical evidence reveals that German firms which rely more heavily on short term debt are likely to be more profitable. This relationship does not appear to hold in the sample of US firms. In general, the theoretical financial literature does not provide a conclusive prediction as to how liability maturity structure affects a firm's performance. Recent studies point out that the maturity structure is closely related to the type of projects the firm carries out and the nature of the financial system. For instance, Dewatripont and Maskin (1995) suggest that an economy with many small banks financing a firm (a multi-bank system) will be one in which industries with more short-term projects will be fostered. In contrast, industries characterized by longer term investment projects will fare better in an economy where money only from a few large banks (a single bank system). Carlin and Mayer (1999) suggest that a system like the German bank-based one, characterized by lending from a single "house bank", should go hand in hand with long term, relatively low risk investments. In contrast, a market-based system in which arm's-length lending by many smaller banks prevails should promote more high risk, short-term investments. Given these findings, we broaden the perspective of the existing literature on liability maturity structure in two ways. We explore the largely neglected question of whether the firm's liability maturity structure systematically

influences its profitability. Second, we take the financial system perspective into account by analyzing separate samples of German and US firms. Our German sample is particularly interesting as it includes a broader sample of firms than generally considered in studies of listed firms. As our empirical strategy allows for a broader set of liabilities than traded debt, we may conduct the analysis on a larger sample of firms than those with privileged access to the capital markets (e.g., see Audretsch and Elston (2002) and Rajan and Zingales (1995)). We find clear evidence of a positive association between the ratio of short-term liabilities to total liabilities and non-financial firms' profitability as measured by return on assets (ROA). As this evidence only appears in the German sample, we conjecture that the nature of the financial system plays an important role. In Germany, all subsamples of firms benefit from a heavier reliance on short-term liabilities. The performance of large German companies is more sensitive to their liability term structure than that of their smaller counterparts. Heavier reliance on short term liabilities increases profitability in a subsample of firms with high short-term debt, but has a smaller effect on profitability for firms with lower reliance on short-term liabilities. This is compatible with the explanation that firm-specific characteristic as well as the nature of the financial system play an important role in determining the effect of liability maturity structure on profitability.

Problem associated with short-term financing

Problem to the bank

The bank is the lender who stood as the source of short-term financing to its needy one. Bank is the prime source of short-term financing. They stood as a short-term financing source in form of wide range of variety. Commercial banks provide short-term sources basically of two types. They are secured and unsecured basis. Unsecured short-term loans provided to the firms which the bank trusts upon based on their assessment and recognition in the market. The reason for the trust can be the firm's profitable position, turnover and current performance in the market. The bank assesses the creditworthiness and last relationship with bank. On the other hand, the secured financing are provided/disbursed against the collateralization. Such collateral can be raw material, finished goods and trading inventory. As a source of short-term financing the bank also provide the loan against the fixed

deposit along with it the other source of short-term financing are disbursed through factoring the receivable or discounting the bills receivable or account receivable. So the bank lends the firm for the short period against or without collateral which the bank decide with their assessment and past relationship. Because of the short period, nature of collateral and reason of financing the short-term financing also confront several problems from its disbursement to its realization.

Following are the problem that a bank faces

Trust/relationship with the borrowing firm

The bank provide various short period financing based on security one is secured and other is unsecured financing. For the secured loan, bank has a backup with collateral put in but for the unsecured financing is provided fully dependent on the creditworthiness and performance of the company. Some of the bank provides such financing only of their past relationship. That's because, the bank has to be fully assured upon their transaction and turnover. Here, the bank gets dilemma of trusting such firm or not. If the borrowing firms have one aspect correct and other not good then lending banks suffers selection decision of whether to finance the firm or not. Therefore the problem of bank is the trust upon the firm which they are going to lend. As to the secured loan, the bank needs trust upon the collateral position and the transaction showed by the borrowing firm. If any suspicion about the collateral and activities of borrowing firm came on the eve of bank, the relationship and the transaction can be badly affected. Therefore the relationship building and selection of trustful firm are the major problem of the bank.

Provision for realization

The bank provide source of short-term financing. The short-term financing are the fund to the firm which has to be repaid within or less than one year. Thus the recovery period is very short for this kind of financing and firm who demand for this type of financing has to pay the principal and interest in an agreed period time. Because of the shortness of repayment period and reason for demand, there are high degrees of chances of full repayment. We know that short-term financing are borrowed for meeting the short-term obligation of working capital and inventory or for the transaction completion or for the import export of trade goods which shows

that payment of such financed amount are based upon the transaction of such firm. Payment is therefore repaid through the sale to product imported/exported. In context of export the payment are repaid after the payment made by the purchaser. And for the exported goods the payment are paid only when the goods are sold. So it is clear that there is possibility of inability of payment by the borrowing firm. Here one thing is to be mentioned that the bank is associated with the borrower with mutual agreement from its very beginning to its turnover activities and bank knows everything of the borrower actual position so bank could not force the borrower to pay his debt. In this situation the bank could not force for the payment as well as cannot impose the fine and penalty to the borrower because of the past relationship. If the bank takes action for the fund recovery than it should be against the relationship or against the bank's own credibility.

Supervision

Bank that provide short term financing disburse the amount to the firm which they regarded as a sound firm and are able to pay the loan in time. The short term loan is disbursed against or without collateral. If the financing are against the loan which can be raw material finished good or trade inventory, the firm has to inspect or supervise the activities of firm whether the collateralized goods are collate able or not. After the goods selected for collateral the bank has to overlook at the transactional activities of the borrowing firm about the stock position and payment according to turnover. In case of unsecured loan the bank has to keep eye on the institution every move in spite of their creditworthiness. In this way the bank are added a task of supervise the activities of borrowing firm. These supervisions are started from the collateral selection to realization. So the added task related to supervision at the borrowing firm activities is another problem of banks which the bank has to perform throughout the credit period.

Problem to the borrower

The borrower of the short term financing is those individual or institution, who demands a fund for short period of less than one year. The financing are demanded for meeting the short period financial obligation, fulfill the liquidity shortage or transaction. The borrower demanding the short term funding also face also faces various problems while asking for short term finance.

Following are the problem that a borrower faces

Cost and collateral:– The main problems of short term financing are the cost and collateral. The cost of the borrowing in short period is the major fact for the financing. The cost i.e. interest rate is should be considerably cost-effective to the borrowing institution and should be appropriately correct to the market rate. Whenever the institution asked for such financing the first consideration is for the cost. The availability of the short term financing is not the problem, the major problem is the cost which the firm can bear or not. Other major concern is for the collateral against which it is going to be financed. The bank who is agree to provide short term financing is because of the collateral if the firm is not well recognized in the market. The major problem of such firm is the acceptability of the collateral upon which they ask for the financing. Thus the question mark arises about the collate ability they posses.

Creditworthiness:– The borrowing institution or individual must be regarded as a credit worthy to get short term financing from the banks. Sound business, trusted brand in market, fair tax payment, constant growth, and big turnover is the characteristic of creditworthiness. The borrowing firm should posses the above characteristic to become acknowledgement worthy in the eye of lending institution. Bank became motivated only if it finds the firm credit worthy. Thus major problem of the firm is to stand recognized in the market. Intense competition and economic environment does not allow every firm for being credit worthy. And without recognized by the bank it is very hard for any firm to get financed in absence of collateral.

Circumstances:– The circumstances under which the firm operated do create the problem for the borrower for the short term financing. The surrounded condition does not necessarily become in the favor of the borrower. Thus firm do not appropriately use the financed amount in favor of their requirement. Thus they could not repay the amount in time. There the firm is adversely affected by the surrounded circumstances. The circumstances are PEST that is 1. Political legal 2. Economical 3. Socio-cultural 4. Technological environment. Thus the circumstances create problem for the borrower of the short term financing. Because

of the short period, the effect of the circumstances is very crucial and can create problem from its beginning to the maturity.

Control:– The firm borrows the short term financing in the secured and unsecured basis. In both way of financing the firm lose its control and they are being guided by the lender bank. If short term financing is secured against the collateral of inventory or trade credit the bank keep eye on every transaction of the borrowing firm. In this process the bank pressurizes the borrowing firm to repay their loan. For this, the bank asks for the daily inventory and transaction statement. Because of it firm faces the problem of lack of confidentiality. Same of unsecured basis, the lender bank always keep their eye on the firm activities and tries to interfere in their daily transaction for their loan repayment in a form of suggestion way.

Perspective of short term financing

Area of usage for short term financing

1. Agriculture:– The short term financing is used in agro based industries, where it is demanded for seasonal characteristics of its production. The farmer needs money for the seed and cultivation. For that the farmer prefer the short period lending from the bank for their need. The maximum time for production to its selling tales not more than 10 months. For the farmer should that period loan from the financial arranger. For that bank in Nepal does not interested to look forwarded and farmers are badly charged by the lender man because they charges very high interest cost than that of the bank charges. Short term financing to the agricultural sector can mobilize and develop the farmer’s productivity and can help them to grow better.

2. Tourism: – The tourism sector can be better served by the short term financing. As we know that in the festive season and other tourist arriving season the factor serving to this industry need fund to attract the tourist through advertisement, and various event organization like game, cultural program, trekking and other refreshment activities. The short period fund is useful rather than the long period loans. In this context the short term financing is very useful and appropriate. Thus short term financing is useful to this sector.

3. Manufacturing:– The major and widely use of the short term financing is done in the manufacturing sector. In this sector the firm need firm to its various activities

from its production to its selling. The firm need fund to purchase raw material, its fixed assets and other opportunities gaining activities like stock making. For all this activities firm cannot arrange the money while they can be required only for a short period. Thus the firm needs a fund for a short term basis. So manufacturing concern asks short term financing from the financial distribution according to the demand and need. The activities of import and export both need fund to proceed their activities which are generally addressed by the bank.

4. Service industries:– Service industries like education, health and consultancies also need the fund at their opportunity grabbing period. Thus they need fund for the short period of time. Like a educational institution need heavy amount at the time of the admission session beginning for the advertisement, likewise the health related firms like running homes and private hospital require the urgent requirement of the fund for their seasonal requirement. At that time the appropriate short term financing is used. So, as consultancies are also financed whenever a contract is taken by such firm because a project of short period is financed by the short term financing.

5. Government finance:– The short term financing is also needed by the government whenever the government feels the adequacy of liquidity. The short period projects run by government also need the short period financing. The government has to manage fund for various reason for the short period form. Like capital inadequacy, liquidity management and crisis management the government ask a short term financing from its financial institution. In the context of such situation the use of short term financing is also called from the government.

Future perspective in Nepal

Replacement of non banking intermediaries/lender man

The banking sector of Nepal has emerged enormously but is unable to reach the ground of the rural society. Thus the banking service is limited in the major cities only. The practice and advantage of banking sector is yet not actually experienced so that they are not beneficiated by the banking operation. The short term financing use in the agro industry is widely practiced in other developed or underdeveloped countries but the country whose more than 75% GDP came from agriculture is

unable to practice the banking beneficiary. The use of short term financing by farmer is the best way to manage the fund but the source of such financing is the private lender man and who charges very high cost of debt which do not allow the farmer and associated people to save from their effort. Thus the practice of the short term financing by allowing it at rural ground could enhance the living of the farmer and help them getting the right price of their effort. Thus the future perspective or move is to replace the non banking financial intermediaries who incorrectly charged unwanted cost to their borrower.

Broaden the area of the practice

The short term financing is mainly practiced by the manufacturing industries. But it is very limited demanded by the other sector. Because of the lesser practice people are unknown to its advantages and misconception as well as the cost and payment aspect of such financing has not attracted other sector for its usage. Here the short term financing is very little practiced because of the fewer no. of manufacturing sector and big corporate houses. The limited practice of short term financing has limited the credit flow of the banks which consequently affect the commercial banks and other financial institutions for the deposit mobilization. Thus the area of the usage of short term financing should be widened by expanding the reach to rural people, creating flexibility in the terms and condition and supporting the opportunity need to the needy organization the span of usage can be enlarged. By doing so the better credit availability can be created and growth of every sector of the country's economy can be achieved.

Promote export and manufacturing activities

The short period financing helps the manufacturing concern to import and export their production through using the instruments of short term financing. We all know that the short term financing generally ask the borrowing institution either their collateral or the reputation in the market. In this situation only the able firm who has the sufficient capacity for the collateral or the reputation of consistent performance will be able to get the desired funding amount. By the fact very limited firm can practice the short term financing for their beneficiary. Thus the short term financing should be able to reach to the potential and required firm who help the economy through the production and revenue generation. The government

as well as the banking and financial institution should arrange such financing to the firm who continue the export related manufacturing sector to grow.

Build user friendly environment to borrower

To get the short term financing, firm must have either collateral or the image in the market as credit worthy. Firm's not able to show such potentiality faces problems to get financed in short period of time. In this situation the bank has to create a borrower friendly environment and must act as an advisor cum leader while lending to the firms. Bank has to promote the firm for the short term lending for that they have to guide the firm to the basic terms and condition and has to become flexible in their payment and cost consideration. By doing so, the bank can create a fruitful environment for both the lender and borrower. Thus environment cannot only created by bank, but it has to be led by the government by providing security of the short period loan and has to impose equal justice for both the lender and borrower of this type of financing.

Chapter 3

3. RESEARCH METHODOLOGY

Research methodology is the way to solve systematically about the research problem. It helps to analyze, examine and interprets various aspects of the research works such as practice, problems and perspective and other work. Various research and statistical techniques are applied in the research methodology. In accordance with the basic objective other subjective are also formulated and research methodology is followed to achieve the objective of the research paper. Methodology states the methods which data have been extracted and discussed the tools that have been used in interpretations of such data to fulfill the objectives more specially. In other words, methodology states the method with which data have been extracted and discusses the tools that have been used in interpretation of such data to fulfill the objectives. More specifically, it describes about the research decision, the population and the sample, nature and source of the data and the tools will be used to analyze the data.

3.1 RESEARCH DESIGN

A research design is purely and simply the framework or plan for a study that guides the collection and analysis of data. Research design is the plan, structure and strategy of investigations conceived so as to obtain answers to research questions and to control variances. A true research design is basically concerned with various steps to collect the data for analysis and draw a relevant conclusion. It is the arrangement of conditions for collection and analysis of data that aims to combine relevance to the research purpose with economy in procedure. To achieve the objective of this study, descriptive and analytical research design has been used. Some financial and statistical tools have been applied to examine facts and descriptive techniques have been adopted to evaluate the practice, problem, and perspective of short term financing in Nepalese the joint venture bank with special reference to NABIL bank and STANDARD CHARTERED bank. The relevant and needed data has been collected from various publications of different commercial banks and website of the various institutions like Nepal Rastra Bank and Ministry of Finance of Nepal government and other journals and article websites.

3.2 POPULATION AND SAMPLES

The term “population” or universe for research means the universe of research study in which the research is based. Since the research topic is about short term finance, all the lending and depository institution of Nepal are the member of population study. The population for the study comprises 29 commercial banks, 73 development banks, 78 finance companies, 17 micro credit development banks, 16 saving and credit co operative limited, one employee provident fund and other 45 non-government financial organizations. Among the total population of 235 banks and non banks that are operating in Nepal, only some selected institutions are taken as sample on random basis. Similarly, due to unavailability of data from all sectors, only commercial banks are chosen for this study. So precisely saying, all 29 commercial banks are the population of this study. But, the study is conducted by taking the sample of 2 commercial banks (NABIL bank limited and STANDARD CHARTERED bank limited) among the whole population of 29 commercial banks. The sample selection was done through the judgment and purposive sampling method. Because the availability of data for the study purpose has forced the researcher to select the sample from the population. We can say that the all 29 banks are the population for the study and the 2 banks are the sample upon the study is conducted Which represents : $\frac{n}{N} = \frac{6}{29} \times 100 = 6.9\%$ of Population

The population of the study i.e. the commercial banks of Nepal are listed below:

Table No. 0

S.No.	Names	Operation (A.D.)	Date
1	Nepal Bank Limited	1937/11/15	
2	Rastriya Banijya Bank	1966/01/23	
3	Agriculture Development Bank Ltd.	1968/01/02	
4	NABIL Bank Limited	1984/07/16	
5	Nepal Investment Bank Limited	1986/02/27	

6	Standard Chartered Bank Nepal Limited.	1987/01/30
7	Himalayan Bank Limited	1993/01/18
8	Nepal SBI Bank Limited	1993/07/07
9	Nepal Bangladesh Bank Limited	1994/06/05
10	Everest Bank Limited	1994/10/18
11	Bank of Kathmandu Limited	1995/03/12
12	Nepal Credit and Commerce Bank Limited	1996/10/14
13	Lumbini Bank Limited	1998/07/17
14	Nepal Industrial & Commercial Bank Limited	1998/07/21
15	Machhapuchhre Bank Limited	2000/10/03
16	Kumari Bank Limited	2001/04/03
17	Laxmi Bank Limited	2002/04/03
18	Siddhartha Bank Limited	2002/12/24
19	Kist Bank Ltd.	2003/02/21
20	Global Bank Ltd.	2007/01/02
21	Citizens Bank International Ltd.	2007/6/21
22	Prime Commercial Bank Ltd	2007/9/24
23	Sunrise Bank Ltd.	2007/10/12
24	Bank of Asia Nepal Ltd.	2007/10/12
25	Development Credit Bank Ltd.	2008/5/25
26	NMB Bank Ltd.	2008/6/5
27	Janata Bank Ltd.	2008/09/29
28	Mega Bank Ltd.	2010/07/23
29	Commerz and Trust Bank Nepal Ltd.	2010/09/20

Only two commercial banks viz (NABIL bank and STANDARD CHARTERED bank) have taken into account for research proposes as samples in this research. They are two of the best performing Joint Venture Bank's in Nepal. Their profit per share, percentage of dividend paid per equity capital, net profits are among the

highest in commercial banks. They are equipped with research and analysis team, proper MIS, sufficient capital and skilled manpower. They also have access to Global financial markets. For selecting the samples, simple random sampling method is used here among different methods. Organization under study are as follows, whose general introduction and major objectives are presented in chapter one.

3.3 SOURCES OF DATA AND COLLECTION PROCEDURES

Basically this study is based on published source of information. These published sources of information are called secondary data. These secondary data are collected mainly from sources like annual report, prospectus, balance sheet, newspaper, journal, internet and other sources. Besides this in some case, if needed, primary data are also be used. They are collected through direct interview and observation from the concern authority and persons related the study.

Secondary data published on annual reports of concerning organizations, like interest rate as well as amount and their organizational profiles are collected through personal visit of respective organization as well as from their websites. Some secondary data like source and use funds of respective bank, comparative study, and inflation rates are collected from the website of Nepal Rastra Bank as well as from the Ministry of Finance. To make the statistical part of the study more descriptive and analyzable various thesis related to the study were selected for the data of historical evidence.

3.4 DATA ANALYSIS TOOLS

Analysis and presentation of the data is the core of project study. This study needs some financial and statistical tools to accomplish the objectives of the study. The data extracted from financial, statistical and accounting tools have been used. These results are then compared with each other to interpret the results. Two kinds of tool have been used to achieve the purpose, namely:

1. Financial Tools and
2. Statistical Tools

3.4.1 Financial Tools

Financial tools basically help to analyze the financial strength and weakness of a firm. Ratio analysis is one of the important financial tools that have been used in the study. A ratio is simply one number expressed in term of another and such it expresses the quantitative relationship between any two numbers. Ratio can be expressed in terms of percentage, proportion and as coefficient. Logarithmic graph and break-even chart are the graphic forms of expressing a ratio. Financial ratio is the mathematical relationship between two accounting figures. Ratio analysis is a part of the whole process of analysis of financial statements of any business or industrial concern especially to take output and credit decisions. Even though there are many ratios to analyze and interpret the financial statement, in this study, basically four types of ratios have been used which are related to Investment policy of banks. They are as follows:

A) Liquidity Ratio

This ratio measures the liquidity position of a firm. It measures the firm's ability to meet its short-term obligations or its current liabilities. It measures the speed with which a bank's assets can be converted into cash to meet deposit withdrawal and other current obligations. As a financial analytical tool, following four liquidity ratios has been used to come into the facts and findings of the study.

i) Current Ratio

The current ratio is calculated by dividing current assets by current liabilities :

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

The current ratio measures the firm's short-term solvency. It also shows the relationship between CA and CL of a firm. Current Assets include cash and those assets which can be converted into cash within a year such as money at call or short notice, loans and advances, overdrafts, bills purchased and discounted, Investment in government securities, prepaid expenses, and other interest receivables and miscellaneous current assets. In this research study, leasehold improvement

(deferred expenditure) as they are amortized over the period of lease has been included in fixed assets.

All obligation maturing within a year are included in current liabilities such as deposit and other accounts, short term loans, outstanding or accrued expenses, bills payable, tax liability, staff bonus, dividend payable, long term debt maturing in current year and miscellaneous current liabilities. As a conventional rule a current ratio of 2:1 is considered satisfactory. A current ratio is a crude and quick measure of the firm's liquidity.

ii) Cash and Bank Balance to Total Deposit Ratio

They are the most liquid of current assets to pay off depositors immediately. This ratio is calculated by dividing cash and bank balance by total deposits. In order to bring about consistency in this research, checks for clearing have been excluded from cash and bank balance and included in other assets. Mathematically,

$$\text{Cash \& Bank Balance to Total Deposit Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Total Deposit}}$$

Cash and bank balance includes cash in local currency and foreign currency on hand or with banks. The total deposits consists of deposits in current account, saving account, fixed deposit account, money at call deposits, margin deposits etc. A higher indicates greater ability of banks to meet their deposits and vice-versa.

iii) Cash and Bank Balance to Current Assets Ratio

This ratio measures the percentage of liquid assets i.e. cash and bank balance in the current assets of the firm. Higher ratio shows greater capacity of firms to meet cash demand. The ratio is calculated by dividing cash and bank balance by current assets. Mathematically,

$$\text{Cash \& Bank Balance to Current Assets Ratio} = \frac{\text{Cash \& Bank Balance}}{\text{Current Assets}}$$

iv) Loan and Advances to Current Assets Ratio

The major portion to a bank's asset side of the balance sheet includes loan and advances. Loan and advance comprise of loan and advance, credit overdraft, bills

purchased and discounted. In this research study, staff loan and advances have been treated as other assets to maintain status quo with the practice followed by banks.

It shows the percentage of total loans and advances to current assets. Mathematically,

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

B) Asset Management Ratios (Activity Ratio)

Asset management ratio measures the proportion of various assets and liabilities in balance sheet. The proper management of assets and liability ensures its effective utilization. The banking business converts the liability into assets by way of its lending and investing functions. Asset and liability management ratio measures its efficiency by multiplying various liabilities into performing assets. The following are the various ratios relating to asset and liability management, which are used to determine the efficiency of the subjected bank in managing its assets and efficiency in portfolio management

i) Loan and Advances to Total Deposit Ratio

This ratio is also called credit-deposit ratio (CD ratio). It is calculated to find out how successfully the banks are utilizing their total deposits on loan and advances for profit generating purpose. Greater ratio implies the better utilization of total deposits, but the same might not hold true from liquidity point of view. This ratio can be obtained by dividing loan and advances by total deposit as under,

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

ii) Loan and Advances to Total Assets Ratio

The major portion of a bank assets side of the sheet includes loan and advances. It is also the major component of the total working fund. This ratio shows the ability of a bank to channelize its assets in the form of loan and advances to earn higher profits. A high ratio indicates better mobilization of fund as loan and advances and vice-versa. Mathematically,

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

Where Assets total includes all assets of balance sheet items i.e. current assets, net fixed assets and other miscellaneous assets.

iii) Total Investment to Total Ratio

This ratio shows the utilization of firm's deposits on investment in government securities and purchasing shares and debentures of other companies. A high ratio is indicative of high success in mobilization of deposits in investment and vice-versa. This ratio can be calculated by dividing total investment by total deposits. Mathematically,

$$\text{Total Investment to Total Ratio} = \frac{\text{Total Investment}}{\text{Total Deposits}}$$

C) Profitability Ratio

The profitability ratios are calculated to measure the overall efficiency of a firm in terms of profit earning and performance. Profit is one of the major indicators of efficient performance of banks. One of the major objectives is to earn profit, so profit is very crucial for the survival of banks. To meet various objectives like, maintain good liquidity position, meet internal obligations, expansion of banking services, finance short-term government needs, commercial banks need to earn sufficient profit. A higher profit shows higher efficiency of a bank.

The following ratios related to investment policy are calculated under profitability ratios:

i) Return on Loan and Advance ratio

Return on loan and advances ratio indicates how efficiently the bank has utilized its resources in the form of loan and advances to generate good return. It measures the earning capacity of a commercial bank. This ratio is calculated by dividing net profit by loan and advances. Mathematically,

$$\text{Return on Loan and Advance ratio} = \frac{\text{Net Profit/Loss}}{\text{Total Loan and Advance}}$$

ii) Return and Total short term debt (financing)

Return on short term debt shows the overall profitability of short term financing. Return short term financing ratio is a measuring rod of the profitability with respect to each financial resource investment of banks asset. If the banks total short term lending is well managed and utilized efficiently, return on such assets will be higher and vice-versa. This ratio is calculated by dividing net profit by total short term financing. It is calculated by dividing net profit by total assets. Mathematically,

$$\text{Return and Total short term financing} = \frac{\text{Net Profit/Loss}}{\text{Total short term financing}}$$

iii) Total Interest Earned to Total short term financing

This ratio is calculated to find the percentage of interest earned to total assets. This ratio reflects the extent to which banks are successful in mobilizing their assets to generate high income. This ratio presents the earning capacity of a bank on its total working fund. Higher ratio indicates better performance or proper utilization of total assets in the form of interest earned on its working fund. This ratio is calculated by dividing total interest earned by total working fund. Mathematically,

$$\begin{aligned} &\text{Total Interest Earned to Total short term financing} \\ &= \frac{\text{Total Interest Earned}}{\text{Total short term financing}} \end{aligned}$$

iii) Total Interest Paid to Total short term financing ratio

This ratio measures the percentage of total expenses against total short term financing (debt) by commercial banks. A high ratio is indicative of higher interest expenses on short term debt. This ratio is calculated by dividing by total interest paid by short term financing. Mathematically,

$$\begin{aligned} &\text{Total Interest Paid to Total short term financing ratio} \\ &= \frac{\text{Total Interest Paid}}{\text{Total short term financing}} \end{aligned}$$

D) Risk Ratio

Risk means uncertainty, variability of return, which is inherent in any investment portfolio of a business enterprise. Risk is an important element since investment with greater risk requires higher return than investments with lower risk. Risk ratios measure the degree of risk involved in various financial operations. The possibility of risk involved in bank's financial operations makes the bank investment a challenging task. As the notion goes, "No risk no gain", therefore, if a bank expects high return on its investment it must be prepared to accept the risk and manage it efficiently.

The following risk ratios are used to analyze and interpret the financial data and investment policy.

i) Liquidity Risk Ratio

Liquidity risk of the bank defines its liquidity needs for deposit. Cash and bank balance are the most liquid of all the assets and are considered bank's liquidity sources. Deposits on the other hand refer to the liquidity needs of banks.

This ratio measures the risk associated with the liquid assets i.e. cash and bank balance that are kept to satisfy the cash demand of customers. A higher ratio shows that the bank has sufficient cash to meet its current obligations i.e. lower liquidity risk, but that may have an adverse impact on the profitability position of the bank. A tradeoff between liquidity and profitability must be maintained. This ratio is calculated by dividing cash and bank balance by total deposit. Mathematically,

$$\text{Liquidity Risk Ratio} = \frac{\text{Total Cash and Bank Balance}}{\text{Total Deposits}}$$

ii) Credit Risk Ratio

Normally, every credit is good at the time it is sanctioned. Most of the bank failures are due to shrinkage in the value of loan and advances. Loan is a risky asset and risk of non-payment of loan is known as credit risk or default risk. Credit risk ratio measures the possibility of loan going into default. While sanctioning loans banks measure credit risk involved in the project. Credit risk is calculated by dividing total loan and advances by total assets. Mathematically,

$$\text{Credit Risk Ratio} = \frac{\text{Total loan and Advances}}{\text{Total Assets}}$$

In term of short term financing by a bank there is a high degree of chances that a borrowing firm could not repay the value of borrowing because the firm guarantee's of his payment largely depend upon the performance i.e. turnover of a bank. Thus to calculate the credit risk short term financing is also important for a bank.

$$\text{Credit Risk Ratio (short term financing)} = \frac{\text{Total short term financing}}{\text{Total Assets}}$$

E) Growth Ratio

The growth ratio represents how the commercial banks are maintaining their economic and financial condition. As a conventional rule, a higher ratio is preferable. A high ratio indicates better performance of the banks and vice-versa. The following growth ratios directly related to the fund-mobilization and investment of the banks are calculated:

- i) Growth ratio of total deposit
- ii) Growth ratio of short term financing (debt)
- iii) Growth ratio of loan and advances

3.4.2. Statistical tools

In the research study, after data is collected and coded in a objective to understand easily, statistical analysis are performed. The study has performed selected statistical analysis in order to explain the information collected. The application of the statistical tools and techniques in this study is to find and explain the relationship, along with to provide comparative picture and description. Statistical tools are used in the study are very essential for analyzing experimental data, investigate the association between the data and to examine the differences between

them in an objective to give the real picture for the study. The statistical tools and method that are used in the study are given below:

Arithmetic Mean

It is the sum of all the observation divided by the number of observations. In such a case all the items are equally important. As arithmetic mean is most common and popular tools for data analysis, here is the study also, arithmetic mean is used. It is computed by using following formula:

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

$\sum X$ = Sum of all the variables x

n = Variables involved

Standard Deviation

The standard deviation is the best tools to study fluctuation if any data. It is usually denoted by the letter sigma (σ). Karl Pearson suggested it as a widely used measure of dispersion and is defined as the positive square root of their arithmetic mean of squares of the deviation of the given observations from their arithmetic mean of a set of value. it can be computed by using following formula:

$$\text{S.D. } (\sigma) = \sqrt{\frac{1}{n} \sum (x - \bar{x})^2}$$

Coefficient of Correlation

By this statistical tool, the degree of relationship between to variables in identified. In other words, this tool is used to describe the degree to which one variable is linearly related to other variables. Two or more variables are said to correlate if change in the value of one variable appears to be linked with the change in the other variables. The correlation analysis refers the closeness of the relationship between the variables. Correlation may be positive or negative and range from -1 to +1. Simple correlation between interest rate and deposit amount, interest rate and credit or lending amount and interest rate (both deposit rate and lending rate) and

inflation is computed in this thesis. For example, let's say that the correlation between interest rate and inflation is positive. It indicates that when inflation increases, interest rate also increases in same direction and vice versa. For our study following reference is used.

Correlation may be positive or negative and ranges from -1 to +1. When $r = +1$, there is positive perfect correlation; when $r = -1$, there is perfect negative correlation; when $r = 0$, there is no correlation and when $r < 0.5$ then there is low degree of correlation.

When 'r' lies between 0.7 to 0.999 (or -0.7 to -0.999, there is high degree of positive (or negative) correlation.

When 'r' lies between 0.5 to 0.699, there is a moderate degree of correlation

The simple correlation coefficient, r, is calculated by using following formula:

$$\text{Simple Correlation Coefficient (r)} = \frac{n \sum x_1 x_2 - (\sum x_1)(\sum x_2)}{\sqrt{n \sum x_1^2 - (\sum x_1)^2} \sqrt{n \sum x_2^2 - (\sum x_2)^2}}$$

$$\text{Alternately, } r = \frac{\text{Cov}(x_1, x_2)}{\sqrt{\text{Var}x_1} \sqrt{\text{Var}x_2}}$$

Where,

$$\text{Covariance } (X_1, X_2) = \frac{1}{n} \sum (x_1 - \bar{x}_1)(x_2 - \bar{x}_2)$$

n = total number of observations

X_1 and X_2 = two variables, correlation between them are calculated

Trend Analysis

Under this topic we analyze the trend of short term financing (loan and debt lending) as well as of the total loan and advances of NABIL and SCBNL from F/Y 2004/2005 to F/Y 2008/2009. It also aids in making forecasting for the next five years up to 2013/2014. the trend value of short term financing has been used in this study.

Test of hypothesis

Under this analysis, effect has been made to test the significance level regarding the parameters of the population on the basis of sample drawn from the population.

This test has been conducted on the following

1. Test of hypothesis on short term financing to loan and advances ratio of NABIL and SCBNL
2. Test of hypothesis of short term financing to total deposit ratio of NABIL and SCBNL
3. Test of hypothesis of short term financing ratio of NABIL and SCBNL

Chapter 4

DATA PRESENTATION AND ANALYSIS

This is the section where, the filtered data are presented and analyzed. This is the one of the major chapter of this study because it includes detail analysis and interpretation of data from which concrete result of Nepalese market can be obtained. In this chapter, the relevant data and information necessary for the study are presented and analyzed keeping the objectives set in mind. This chapter consists of various calculation made for the analysis of short term financing (lending) and its effects on composition as well as the performance of the sample banks. To make our study effective and precise as well as easily understand, this chapter is categorized in three parts: presentation, analysis and interpretation. The analysis is fully based on Secondary data available. In presentation section data are presented in terms of table, chart of figures, according to need. The presented data are then analyzed using different statistical tools mentioned in chapter three. At last the results of analysis are interpreted. Though there is no distinct line of demarcation for each section (like presentation section, analysis section and interpretation section) but the arrangement of writing is made by aforementioned way. Similarly it also noted that almost all data used for analysis are of secondary type.

4.1 DATA PRESENTATION AND ANALYSIS

4.1.1 Financial Tools

Financial analysis involves identifying the financial strength and weakness of the organization by presenting the relationship between items of the balance sheet. For the purpose of this study ratio has been mainly used for the analysis of data.

Various financial ratios related to investment, management and fund mobilization, have been presented and discussed in order to evaluate and analyze the performance of financial statements of concerned JVB's. The financial ratios that are calculated for the purpose of this study are:

A: Liquidity Ration

B: Asset Management Ratio

C: Profitability Ratio

D: Risk Ratio

E: Growth Ratio

A) Liquidity Ratios

Liquidity ratios measure the firm's ability to meet its current obligation. The following ratios which measure the liquidity position of banks are calculated:

i) Current Ratio

This ratio is calculated by dividing current assets by current liabilities. (For detail see appendix-3)

The current ratios of NABIL and SCBL are given in the table below:

Table No. 1

Current Ratio (Times)

F/Y	NABIL	SCBNL
2004/2005	2.1	5.42
2005/2006	2.07	3.02
2006/2007	2.08	0.86
2007/2008	1.83	2.38
2008/2009	1.35	2.29
Mean	1.886	2.79
S.D.	0.2756	1.4908
C.V.	14.61%	53.43%

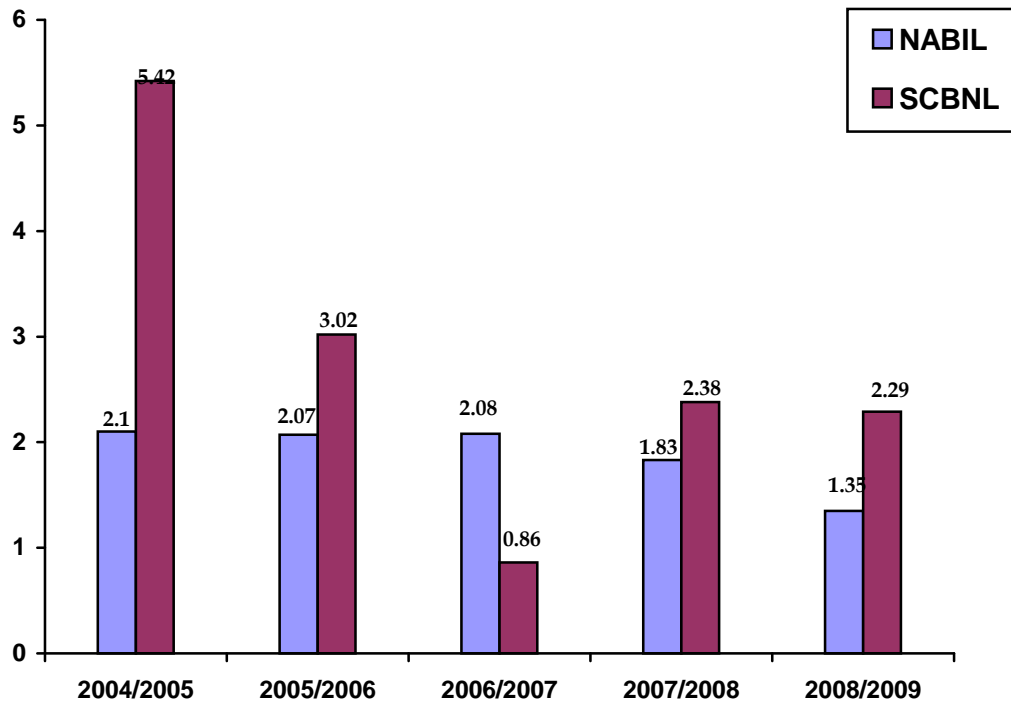


Fig No. 1

It is clear from the above that both NABIL and SCBNL have maintained current assets more than their current liabilities (except in F/Y 2006/07 SCBNL having 0.86). This is a sign that both banks are capable enough to pay their current obligations. NABIL has the highest current ratio in F/Y 2004/05 i.e. 2.1 and the lowest in F/Y 2008/09 i.e. 1.35.

Similarly SCBNL has a high current ratio of 5.42 in F/Y 2004/05 and a low of 0.86 in F/Y 2006/07. The averages mean ratio of SCBNL is higher than NABIL, i.e. $2.79 > 1.886$. This shows that SCBNL's liquidity position is quite better than that of NABIL. The lower degree of standard deviation and coefficient of variation suggest that both the banks have maintained consistency in their ratios. Though as per the conventional rule current ratio should be 2:1 but for banks and other financial institutions any current ratio above 1 also considered healthy and sound.

In order to bring about consistency in this research, checks subject to clearing have been excluded from cash and bank balance and included in other assets.

ii) Cash and Bank Balance to Total Deposit Ratio

This ratio is calculated by dividing cash and bank balance by total deposits. (For details see appendix 4). The cash and bank balance to total deposits ratio of NABIL and SCBNL are given below:

Table No. 2
Cash and Bank Balance to Total Deposit Ratio (%)

F/Y	NABIL	SCBNL
2004/2005	6.87	9.56
2005/2006	3.83	5.74
2006/2007	3.26	5.53
2007/2008	5.99	8.2
2008/2009	8.37	6.89
Mean	5.66	7.18
S.D.	1.898	1.522
C.V.	33.53%	21.19%

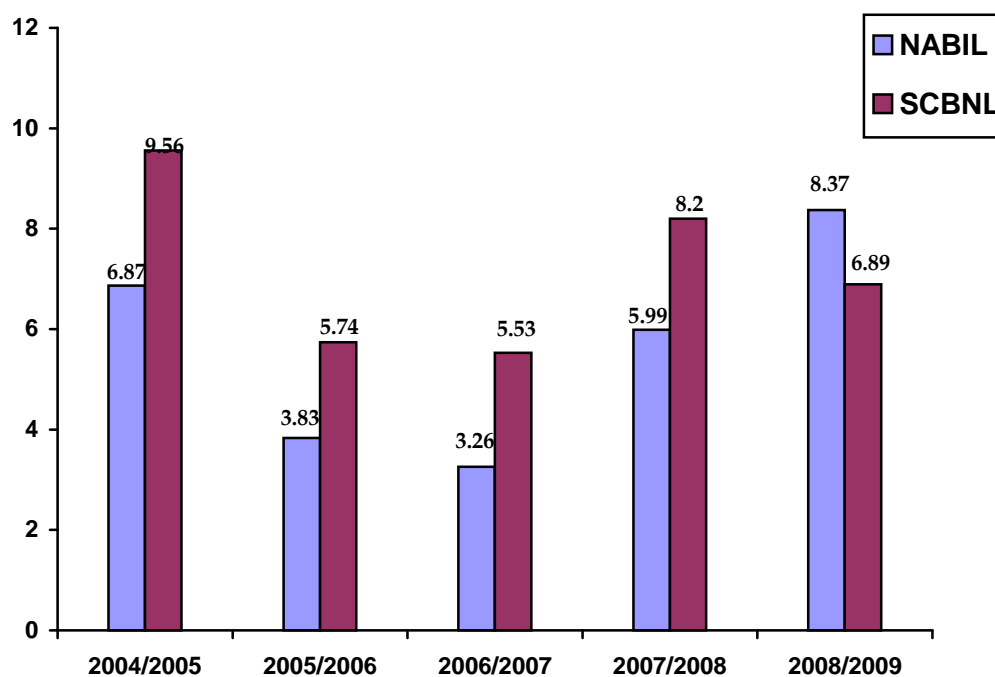


Fig. 2

The above table shows that the cash and bank balance to total deposit of both NABIL and SCBNL are in fluctuating trend. NABIL had a high ratio of 8.37% in F/Y 2008/2009 and a low ratio of 3.26% in F/Y 2006/2007. Similarly, SCBNL has a high of 9.56% in F/Y 2004/2005 and a low of 5.53% in F/Y 2006/2007. The averages mean ratio of SCBNL is slightly higher than NABIL i.e. 7.18% > 5.66%. This shows SCBNL readiness to meet customer requirement better than NABIL. The C.V. of NABIL is higher than that of SCBNL i.e., 33.53% > 21.19%. On its basis, it can be concluded that NABIL's ratio are less consistent than that of SCBNL.

Although the above ratios implies a slightly better liquidity position of SCBNL, a high ratio of non-earning cash and bank balance indicates the bank unavailability to invest its fund in income generation areas that might have helped it to improve its profitability.

iii) Cash and Bank Balance to Current Assets Ratio

This ratio is calculated by dividing cash and bank balance by current assets (for detail see appendix-5). The Cash and Bank Balance to Current Assets Ratio are presented in the following table:

Table No.3
Cash and Bank Balance to Current Assets Ratio (%)

F/Y	NABIL	SCBNL
2004/2005	8.56	10.49
2005/2006	6.34	6.26
2006/2007	4.55	6.19
2007/2008	8.25	8.96
2008/2009	13.27	8.71
Mean	8.19	8.12
S.D.	2.919	1.66
C.V.	35.64%	20.44%

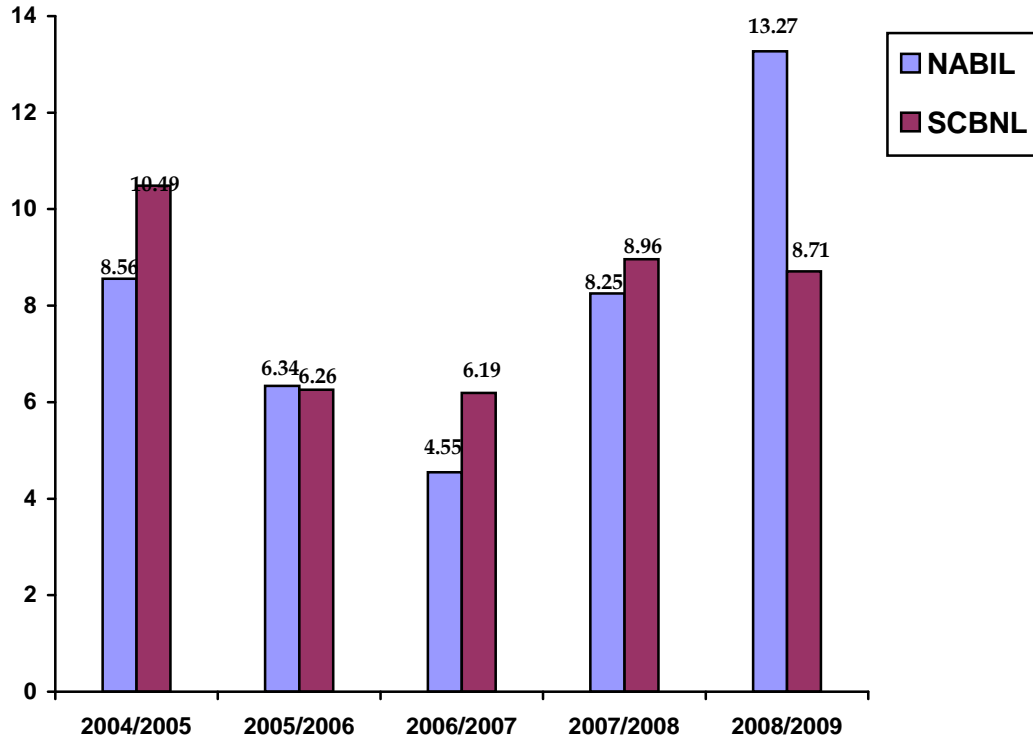


Fig. 3

The above table shows that the cash and bank balance to current assets of both NABIL and SCBNL are in a fluctuating trend. NABIL has maintained a high ratio of 13.27% in F/Y 2008/09, and a low ratio of 4.55% in 2006/07. Similarly, SCBNL has a high of 10.49% in F/Y 2004/05 anticipating higher cash requirement depositors in this F/Y. it has a low rate of 6.19% in F/Y 2006/2007.

The average mean ratio of NABIL is slightly higher than SCBNL. The C.V. of SCBNL is greater than that of NABIL. The above table does not show any significant difference between the JVB's with regards to meeting customer's daily cash requirement. Both have fared well in meeting their depositor's daily cash requirement and investing the surplus fund in other productive areas.

iv) Loan and Advances to Current Assets Ratio

This ratio is calculated by dividing total loan and advances by current assets (for detail see appendix 6). The ratios are presented in the following table:

Table No. 4

Loan and Advances to Current Assets Ratio (%)

F/Y	NABIL	SCBNL
2004/2005	72.3	33.2
2005/2006	120	45.9
2006/2007	93.2	43.3
2007/2008	91.7	46.6
2008/2009	106.2	58.2
Mean	96.7	45.4
S.D.	15.81	7.96
C.V.	16.35%	17.53%

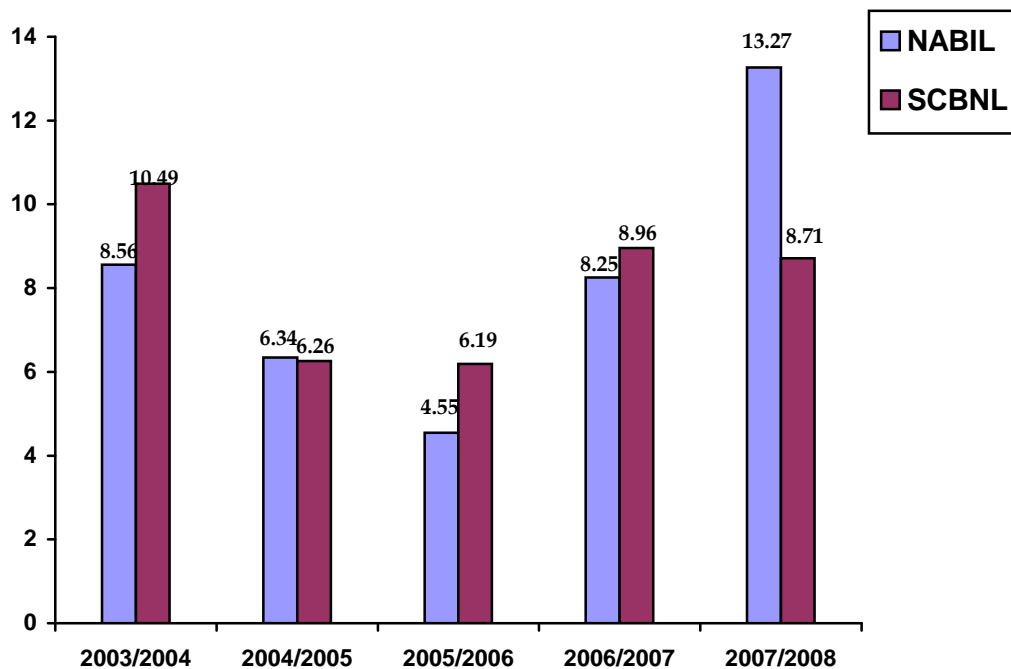


Fig No. 4

The above table clearly shows fluctuating trend of loan and advances of NABIL during the study period. The average mean ratio of NABIL is higher compared to SCBNL i.e. $96.7 > 45.4$. SCBNL has experienced an increasing trend of loan and

advances up to F/Y 2005/2006. There after it has witnessed a decreased in loan and advances as a percentage of current assets but has increased from 2007/08. NABIL had had a high ratio of 120% in 2006/07 and a low ratio of 72.3% in F/Y 2004/2005. Similarly SCBNL has experienced a high ratio of 58.2% in F/Y 2008/2009 and a low of 33.2% in F/Y 2004/2005.

The above analysis reveals that NABIL has been more successful in identifying profitable investment sectors and increasing its earning. The same does not hold true for SCBNL, whose efforts seems to be more focused on investing in risk free assets, rather than increasing its loan and advances volume and subsequent earnings from it.

B) Asset Management Ratios

The following ratios measure the asset management ability of NABIL and SCBNL.

i) Loan and Advances to Total Deposit Ratio

This ratio is calculated by dividing total loan and advances by total deposits. (For detail see appendix - 7).

The data tabulated below shows the loan and advances to total deposit ratio of NABIL and SCBNL.

Table No. 5
Loan and Advances to Total Deposit Ratio (%)

F/Y	NABIL	SCBNL
2004/2005	58	30.3
2005/2006	72.6	42
2006/2007	66.8	38.7
2007/2008	66.6	42.6
2008/2009	66.9	46.1
Mean	66.2	39.9
S.D.	4.7	5.3
C.V.	7.09%	13.28%

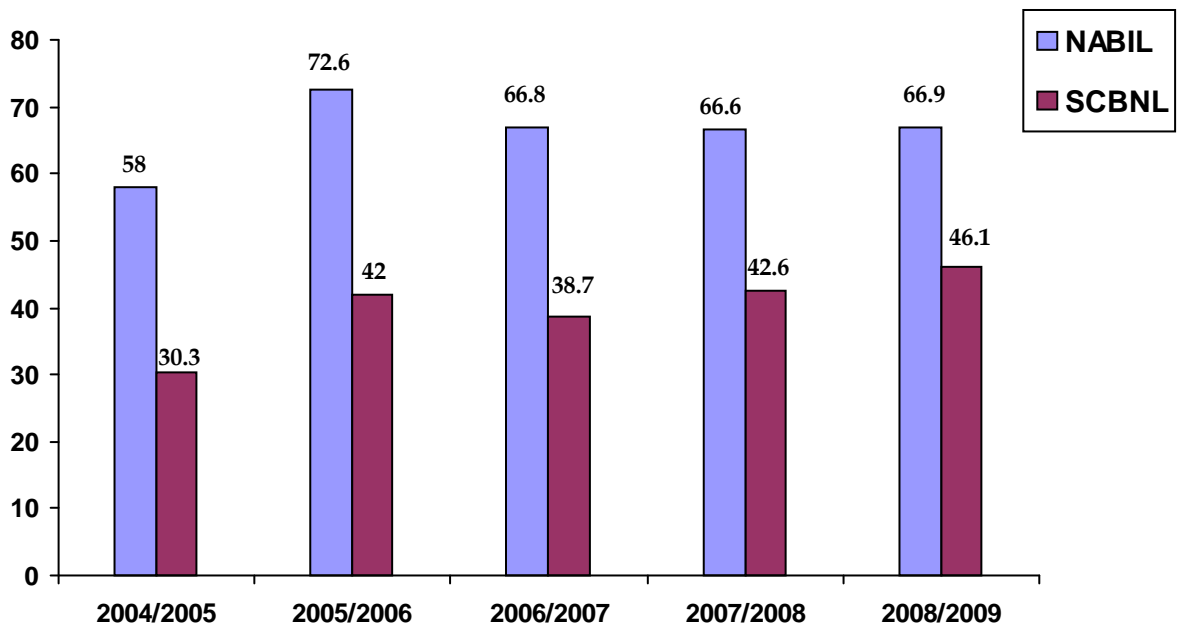


Fig no. 5

The above table shows that the loan and advances to total deposits of both the banks have fluctuating trend. NABIL had a high of 72.6% in F/Y 2005/06 and a low ratio of 58% in F/Y 2004/05. Accordingly, SCBNL had a high of 46.1% and a low of 30.3% SCBNL's loan and advances to total deposit has had a quite fluctuating trend over the years. The mean ratio of NABIL is almost twice that of SCBNL i.e. 66.2% > 39.9%. NABIL seems to be strong in terms of mobilization of its total deposits as loan and advances when compared to SCBNL.

In terms of C.V., both seem to be consistent but NABIL has little higher C.V. It can be concluded that, NABIL has been more successful in mobilizing its total deposits as loan and advances than SCBNL. On the contrary, a high ratio should not be perceived as a better state of affairs from the point of view of liquidity, as loan and advance are not as liquid as cash and bank balance and other investment. In portfolio management of bank various factors such as availability of funds, liquidity requirements, central bank norms etc. needs to taken into account.

ii) Total Investment to Total Deposit Ratio

This ratio is calculated by dividing total investments by total deposits (For detail see appendix - 8)

The data tabulated below shows the investment to total deposit ratio of NABIL and SCBNL.

Table No. 6

Total Investment to Total Deposit Ratio (%)

F/Y	NABIL	SCBNL
2004/2005	41.3	53.7
2005/2006	29.2	50.1
2006/2007	31.9	55.7
2007/2008	38.3	54.9
2008/2009	31.1	46.7
Mean	34.4	52.2
S.D.	4.6	3.3
C.V.	13.37%	6.32%

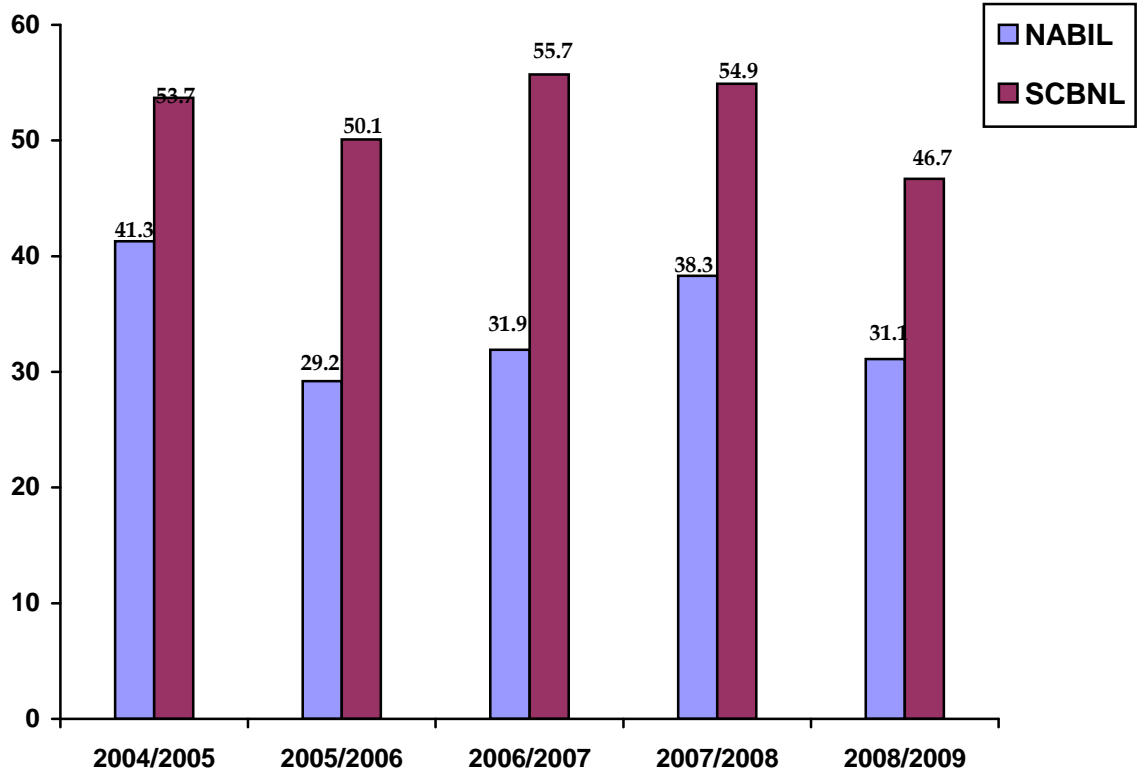


Fig no.6

The above table shows a fluctuating trend in total investment to total deposit of NABIL and SCBNL. NABIL has a high ratio of 41.3% and a low ratio of 29.2%. SCBNL, on the other hand had a high ratio of 55.7% and a low of 46.7% in F/Y 2006/08 and 2008/09 respectively.

SCBNL has a high mean ratio than NABIL i.e. 52.2% > 34.4%. From mean ratio perspective, SCBNL has been more successful in mobilization of deposits on various forms of investment.

From C.V.'s viewpoint, both the sample banks have been consistent, with SCBNL being little better in terms of consistency than NABIL.

In conclusion, the above analysis reveals that SCBNL has been more successful in mobilizing its resources on various forms of investment. What is worth mentioning is that interest on Treasury Bills, Interbank lending and placements are at an all time low level, so SCBNL has not done itself justice by investing in low yield less risky and risk free assets.

C) Profitability Ratio

The following ratios are calculated under profitability ratios:

i) Return on Loan and Advances Ratio

This ratio is calculated by dividing net profit by loan and advances. The following table shows the return on loan and advances ratio of NABIL and SCBNL, during the study period (for detail see appendix - 10)

Table No. 7
Return on Loan and Advances Ratio (%)

F/Y	NABIL	SCBNL
2004/2005	5.56	8.39
2005/2006	4.91	6.58
2006/2007	4.92	7.37
2007/2008	4.33	6.59
2008/2009	3.49	5.96
Mean	4.64	6.98
S.D.	0.6951	0.8357
C.V.	14.98%	11.97%

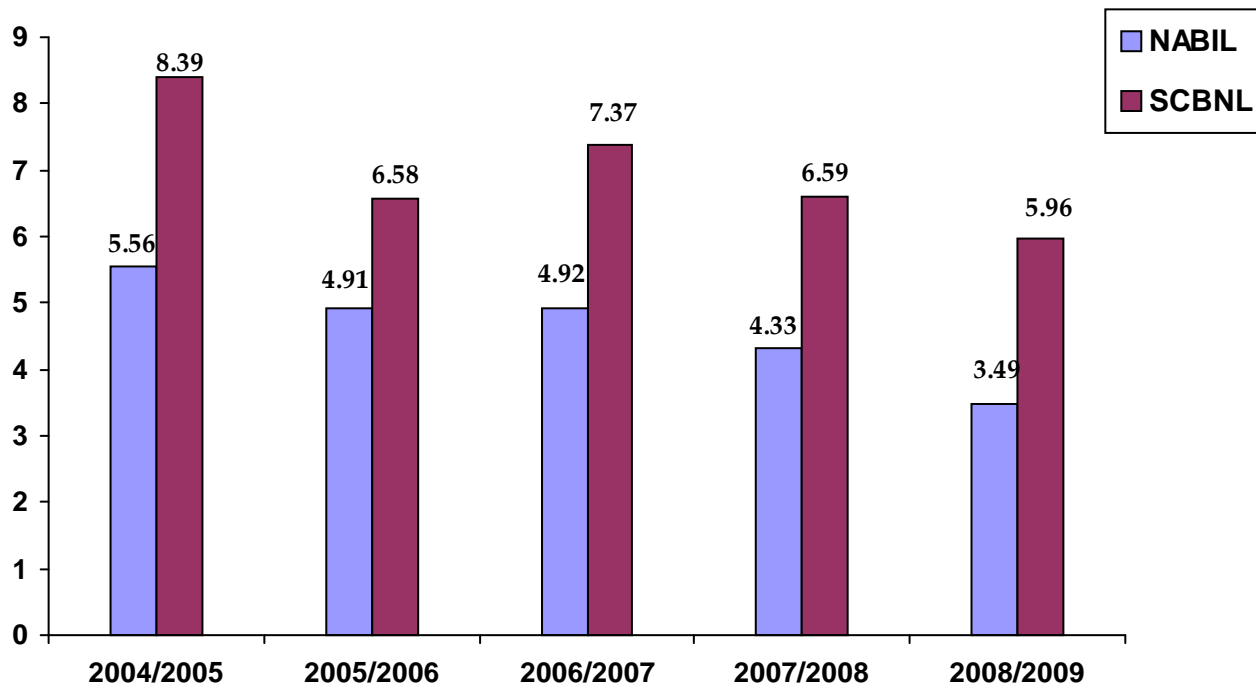


Fig no. 7

The above table shows that the ratio of return on loan and advances of SCBNL are better than NABIL in all F/Y, though they have a fluctuating trend. NABIL's ratios

have witnessed a decreasing trend from F/Y 2004/05. NABIL has recorded a high ratio of 5.56% in F/Y 2004/05, and a low ratio of 3.49% in F/Y 2008/09. Similarly, SCBNL recorded a high of 8.39% in F/Y 2004/05 and a low of 5.96% in F/Y 2008/09.

The comparison of mean ratio reveals that SCBNL has a higher ratio than NABIL i.e. 6.98% > 4.64%. This shows that SCBNL has been more successful in maintain its higher return on loan and advances than NABIL.

C.V. of SCBNL is significantly lower than NABIL i.e. 11.97 % < 14.98%. It proves that NABIL has higher variability of ratio than SCBNL.

In conclusion, it can be said that NABIL's profit earning capacity by utilizing available resources is weaker compared to SCBNL, but nevertheless NABIL is making significant improvements in this regard.

ii) Return on short term financing

This ratio is calculated by dividing net profit by total short term financing. The following table shows the return on short term financing ratio of NABIL and SCBNL during the study period. Short term financing is the sum of all obligations that is to be collected within a year of maturity. It contains short term loan, debt and call money. (For detail see appendix - 11)

Table No.8

Return on short term financing ratio (%)

F/Y	NABIL	SCBNL
2004/2005	6	4.48
2005/2006	8	4.66
2006/2007	7.02	5.02
2007/2008	5.55	5.17
2008/2009	5.48	5.36
Mean	6.41	4.94
S.D.	0.9667	0.3243
C.V.	15.08%	6.56%

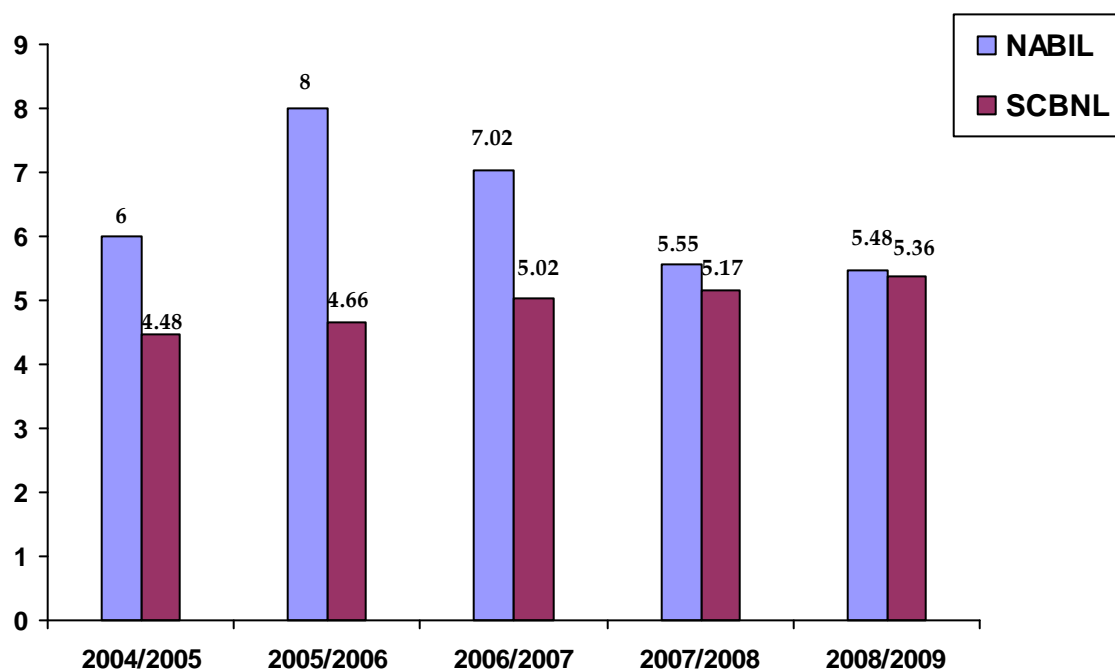


Fig.8

The above table shows that the ratio of return on short term financing of NABIL are better than SCBNL in all F/Y, through they have a fluctuating trend. NABIL's ratios have witnessed a decreasing from F/Y 2005/06. NABIL has recorded a high ratio of 8% in F/Y 2005/06, and a low ratio of 5.48% in F/Y 2008/09. Similarly,

SCBNL recorded a high of 5.36% in F/Y 2007/08 and a low of 4.48% in F/Y 2004/05.

The comparison of mean ratio reveals that NABIL has a higher ratio than SCBNL i.e., 6.41% > 4.94%. This shows that NABIL has been more successful in maintaining its higher return on loan and advances than SCBNL.

C.V. of SCBNL is significantly lower than NABIL i.e. 6.56% < 15.08%. It proves that NABIL has higher variability of ratio than SCBNL.

In conclusion, it can be said that NABIL's profit earning capacity by utilizing available resources for short period is higher compared to SCBNL, but nevertheless SCBNL is making significant improvements in this regard.

iii) Total Interest Earned to Total Short Term Financing Ratio

This ratio is calculated by dividing total interest earned by total short term financing of the banks. The following table shows interest earned to total short term financing ratio of NABIL and SCBNL during the review period. (For detail see appendix - 12)

Table No. 9

Total Interest Earned to Total Short Term Financing Ratio (%)

F/Y	NABIL	SCBNL
2004/2005	13.19	8.67
2005/2006	16.44	9.19
2006/2007	14.49	9.06
2007/2008	13.08	10.56
2008/2009	14.52	10.42
Mean	14.34	9.58
S.D.	1.2145	0.7637
C.V.	8.47%	7.97%

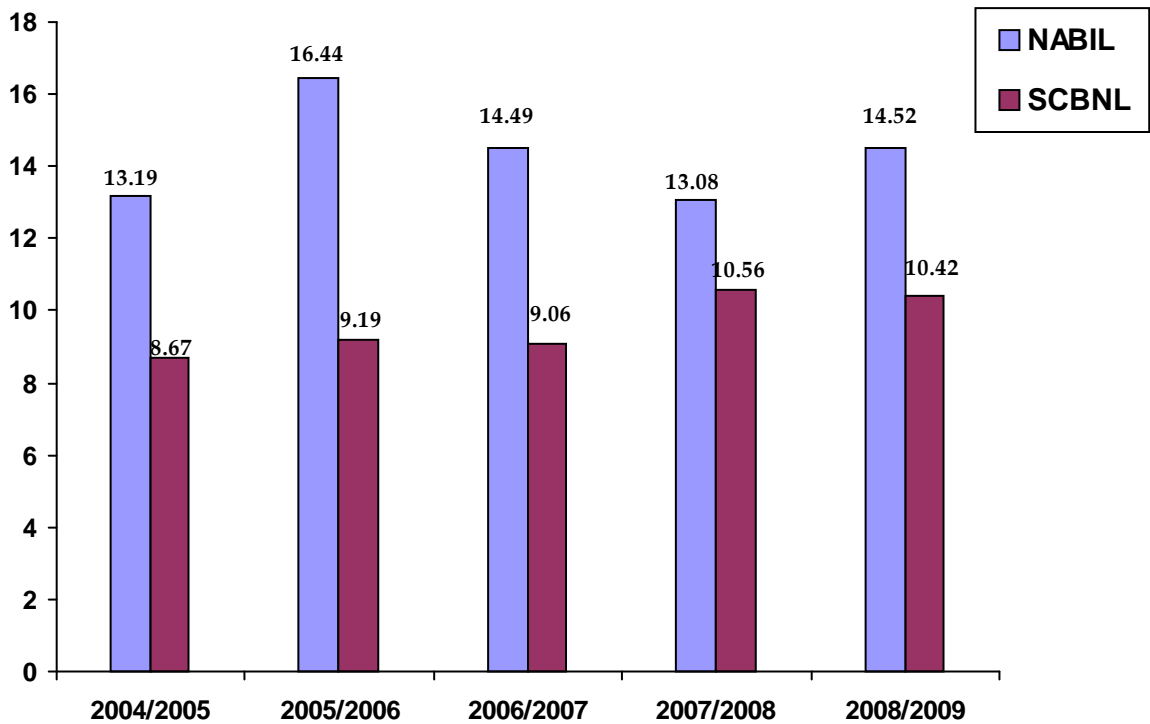


Fig. 9

The above table reflects a fluctuating trend in interest earning to short term financing ratio of NABIL bank where as SCBNL is increasing its earning power over the period of time. NABIL has had a high ratio of 16.44% in F/Y 2005/06 and a low ratio of 13.08% in F/Y 2007/08. Similarly, SCBNL has experienced a high of 10.56% in F/Y 2007/08 and a low of 8.67% in F/Y 2004/05.

The average interest earning to short term financing ratio of NABIL is 14.34% whereas the same for SCBNL is 9.58%. This reflects that NABIL has been stronger in terms of interest earning power w.r.t. total short term financing than SCBNL.

Form the above analysis, we can conclude that NABIL has been able to earn high interest on its total short term financing i.e. it has been more successful in mobilizing its assets to generate high income. The increasing trend of interest earning ratio w.r.t. total short term financing is a matter of concern, and both the banks need to look for ways to improve upon their interest earnings in short maturity financing.

iv) Total interest paid to total short term financing ratio

This ratio is calculated by dividing total interest paid by short term financing by the bank. The following table shows the total interest paid to total short term financing ratio of NABIL and SCBNL for the five-year study period. (For detail see appendix - 13)

Table No. 10

Total interest paid to total short term financing ratio (%)

F/Y	NABIL	SCBNL
2004/2005	3.72	2.29
2005/2006	3.75	2.21
2006/2007	2.95	2.31
2007/2008	4.58	3.09
2008/2009	5.56	3.09
Mean	4.31	2.598
S.D.	0.696	0.403
C.V.	16.15%	15.51%

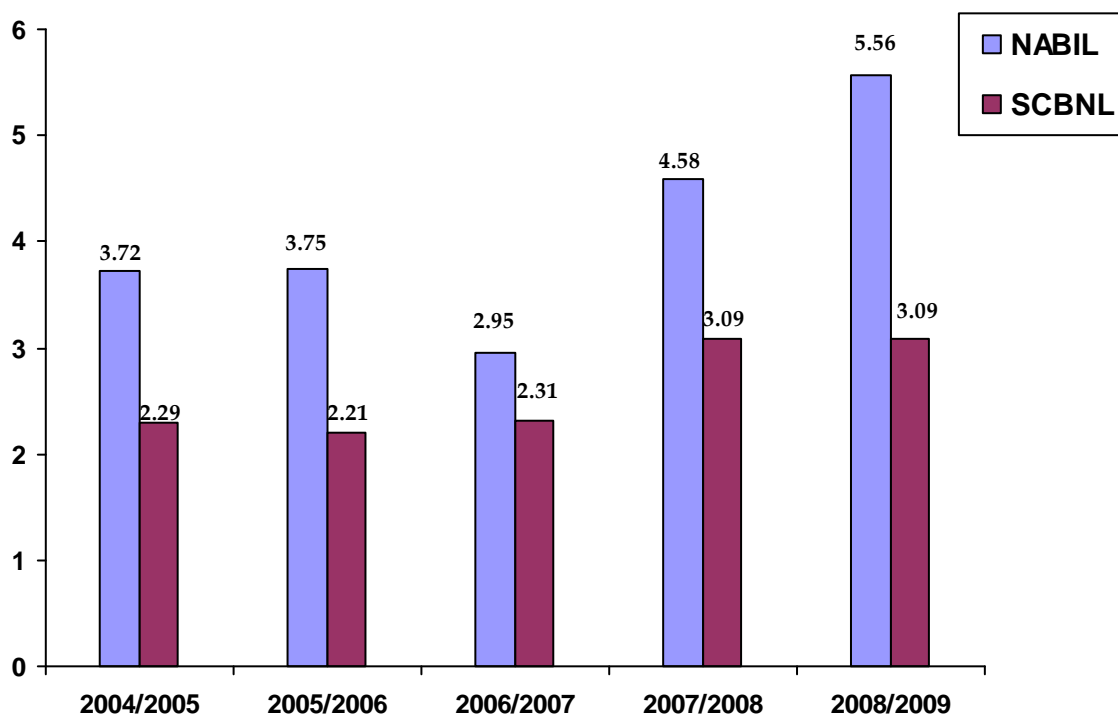


Fig.10

The above table shows a slow increasing trend in total interest paid to total short term financing ratio of both the banks except for F/Y 2006/2007 in case of NABIL. The increase in interest expenses can be attributed to hard competition for deposit collection from the market.

The average ratio of SCBNL with regards to total interest paid to total short term financing ratio is slightly lower than that of NABIL i.e. 2.59% < 4.31%. In terms of C.V. SCBNL ratios are little more stable than that of NABIL.

Overall, we can say that SCBNL is in a better position from interest payment point of view than NABIL. SCBNL seems to have collected its fund from cheaper sources than NABIL.

D) Risk Ratio

The following risk ratios have been used to measure the risk involved in financial operation of NABIL and SCBNL.

i) Credit Risk Ratio

This ratio is calculated by dividing total loan and advances by total assets. The following table shows the comparative credit risk ratio of NABIL and SCBNL. (For detail see appendix - 9)

Table No. 11
Credit Risk Ratio (%)

F/Y	NABIL	SCBNL
2004/2005	48.9	27.1
2005/2006	61.6	37.4
2006/2007	57.9	34.7
2007/2008	54	36.7
2008/2009	57.5	41.1
Mean	56	35.4
S.D.	4.2	4.61
C.V.	7.5%	13.02%

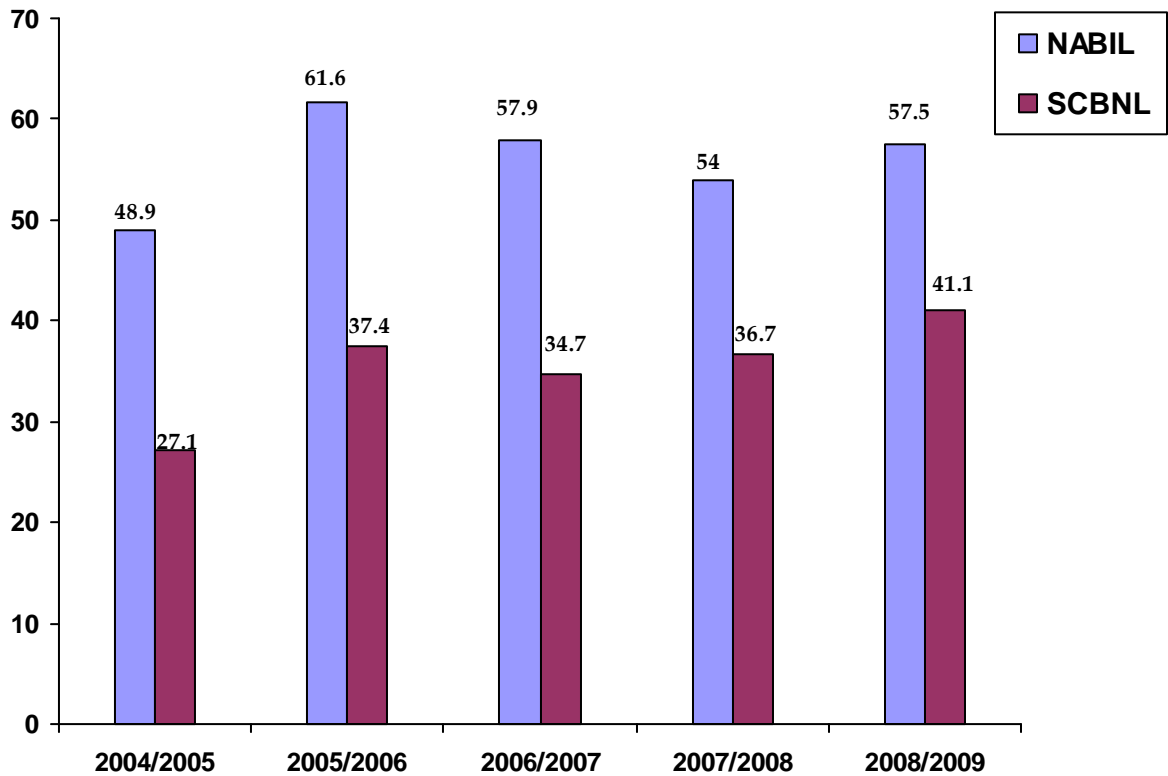


Fig. 11

The above table shows that NABIL ratios are in a fluctuating trend from F/Y 2004/05 to 2008/09, so as like the ratios of SCBNL.

NABIL has witnessed a high ratio of 61.6% in F/Y 2005/06 and a low ratio of 48.9% F/Y 2004/05. Similarly, SCBNL has had a high ratio of 41.1% in F/Y 2008/09 and a low ratio of 27.1% in F/Y 2004/05.

The mean ratio of SCBNL is lower than that of NABIL i.e. 35.4% < 56.6%. This indicates that NABIL has more exposure to credit risk than its counterpart. The very slow increment trend of SCBNL's ratios project shows a picture that SCBNL is trying to stand its credit risk still. From the point of view of C.V., both banks seem to have had consistent ratios during the study period.

ii) Credit Risk Ratio of Short term Financing

This ratio is calculated by dividing total short term financing by total assets. The following table shows the comparative credit risk ratio of NABIL and SCBNL.

(For detail see appendix - 14)

Table No.12

Credit Risk Ratio of Short term Financing (%)

F/Y	NABIL	SCBNL
2004/2005	45.3	50.8
2005/2006	37.8	52.8
2006/2007	40.5	50.9
2007/2008	44.5	46.7.
2008/2009	36.7	45.8
Mean	40.9	49.4
S.D.	3.44	2.64
C.V.	8.41%	5.34%

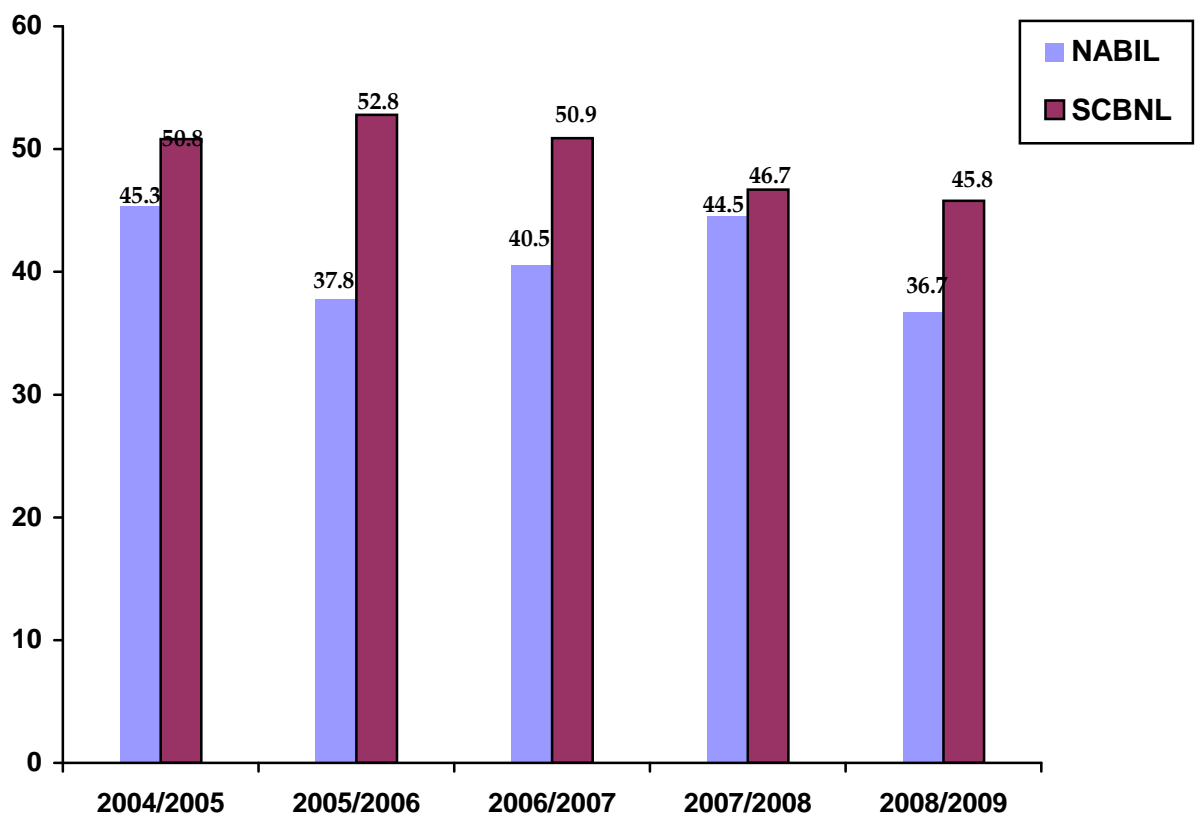


Fig. 12

The above table shows that SCBNL ratios are in a decreasing trend from F/Y 2005/06. Before it, they have an increasing trend. The ratios of NABIL have a rise and fall trend.

NABIL has witnessed a high ratio of 45.3% in F/Y 2004/05 and a low ratio of 36.7% F/Y 2008/09. Similarly, SCBNL has had a high ratio of 52.8% in F/Y 2005/06 and a low ratio of 45.8% in F/Y 2008/09.

The mean ratio of SCBNL is higher than that of NABIL i.e. $49.4\% > 40.9\%$. This indicates that SCBNL has more exposure to credit risk in term of short term financing than that of NABIL. The decreasing trend of SCBNL's ratios project shows a picture that SCBNL is trying to reduce its credit risk. From the point of view of C.V., both banks seem to have had consistent ratios during the study period.

E) Growth ratio

The growth ratios represent how the commercial banks are maintaining their economic and financial condition. As a conventional rule, a higher ratio is preferable. A high ratio indicates better performance of the banks and vice-versa. The following growth ratios directly related to the fund-mobilization and investments of the banks are calculated:

1. Growth ratio of total deposit
2. Growth ratio of short term financing (debt)
3. Growth ratio of loan and advances

Table No.13

Growth ratio of total deposit (%)

(Rs. In thousands)

F/Y	NABIL		SCBNL	
	Total Deposit (Rs.)	%	Total Deposit (Rs.)	%
2004/2005	14119032	0	21161442	0
2005/2006	14586608	3.31	19363470	-8.49
2006/2007	19347399	32.63	23061032	19.09
2007/2008	23342285	20.65	24647021	6.87
2008/2009	31915047	36.72	29743999	20.68
Mean		18.66		7.63
S.D.		14.89		11.14
C.V.		0.798		1.46

Growth ratio of total deposit

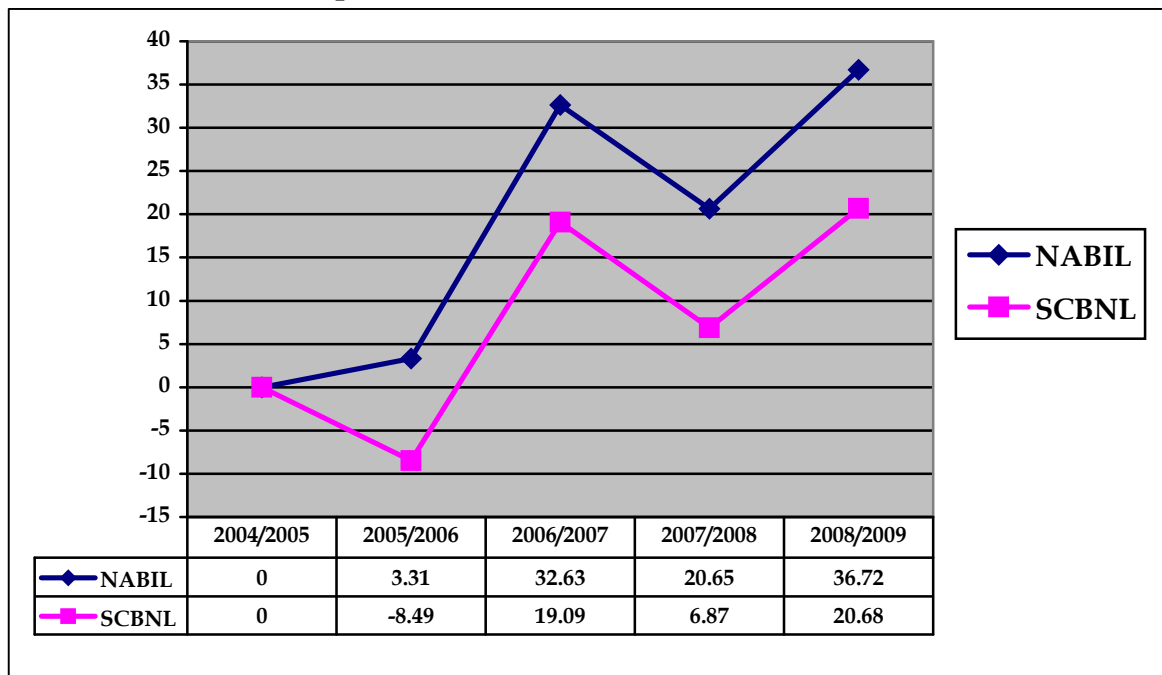


Fig. 13

Table No. 14

Growth Rate of Total Short Term Financing (%)

Rs. In thousand

F/Y	NABIL			SCBNL		
	Total Financing (Rs.)	Short Term	Term %	Total Financing (Rs.)	Short Term	Term %
2004/2005	7595200		0	12011000		0
2005/2006	6500200		-14.41	11514000		-4.13
2006/2007	9042000		39.1	13127000		14.01
2007/2008	12140800		34.27	13367000		1.83
2008/2009	13625700		12.23	15269000		14.23
Mean			14.24			5.19
S.D.			20.23			7.55
C.V.			1.423			1.457

GROWTH RATE OF TOTAL SHORT TERM FINANCING

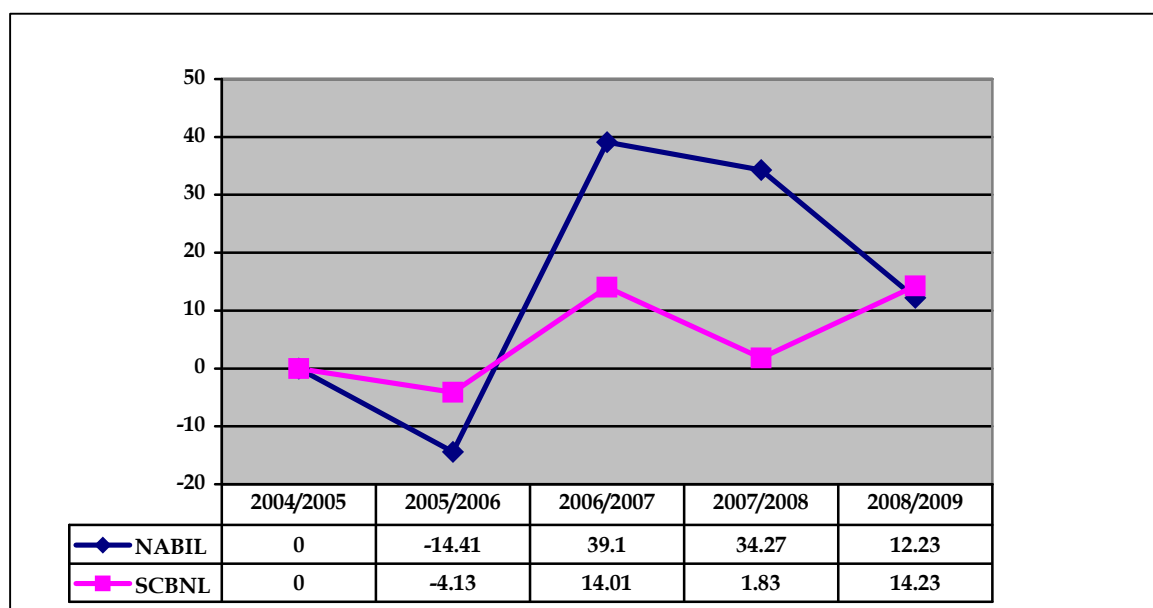


Fig. 14

Table No. 15

Growth Rate of Total Loan and Advances (%)

Rs. In thousand

F/Y	NABIL		SCBNL	
	Total loan & advances (Rs.)	%	Total loan & advances (Rs.)	%
2004/2005	8189993	0	6410242	0
2005/2006	10586170	29.25	8143208	27.03
2006/2007	12922543	22.07	8935418	9.73
2007/2008	15545779	20.3	10502637	17.54
2008/2009	21365053	37.43	13718597	30.62
Mean		21.81		16.98
S.D.		12.47		11.21
C.V.		0.572		0.660

GROWTH RATE OF TOTAL LOAN AND ADVANCES

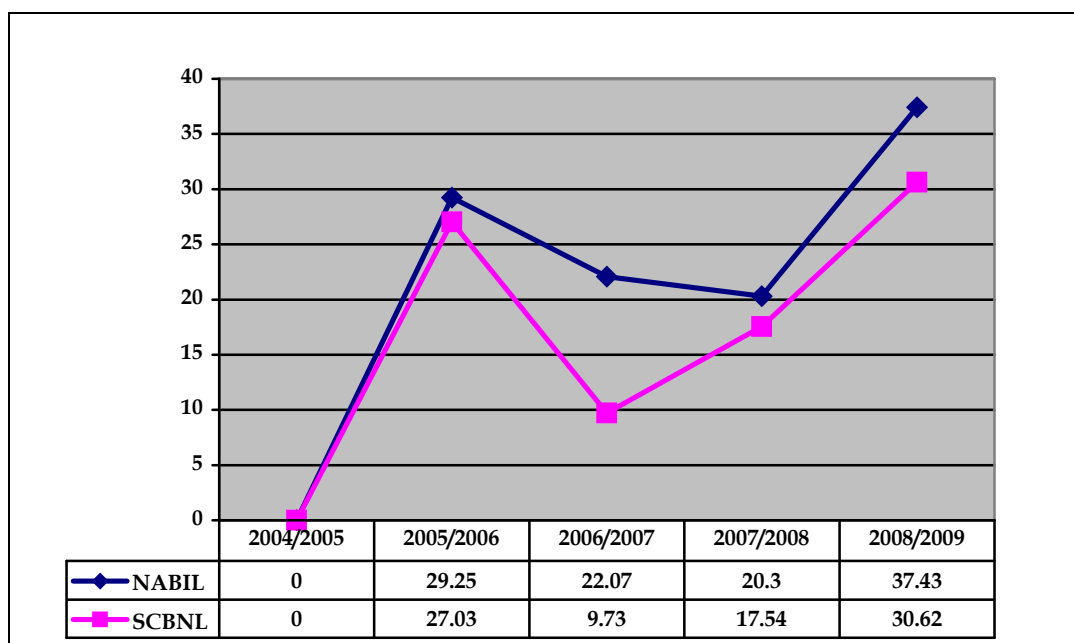


Fig. 15

The growth rates of deposits of both the banks are in a fluctuating trend. The average growth rate of deposits of SCBNL are significantly lower than NABIL i.e. $7.63\% < 18.66\%$. This indicates NABIL increasing performance in collecting more deposits. NABIL has experienced high growth rate in F/Y 2006/2007 and 2008/2009 respectively. NABIL has consciously increased deposits by 32.64% in F/Y 2006/2007 and 36.72% in F/Y 2008/2009.

On the contrary, SCBNL has been less successful in increasing its deposit comparing to NABIL year after year. This is a solid proof of its high quality service, security and credibility in the mind of depositors.

In the study period, NABIL ratios were highly variable than SCBNL. The growth rate of total loan and advances of both the banks are in a fluctuating trend. The average growth rate of total loan and advances of NABIL is better than SCBNL i.e. $21.81\% > 16.98\%$. This ratio can be misleading in the sense that the ratio of loan and advance to current assets, total deposits, and total working fund of SCBNL is comparatively less than that of NABIL. NABIL has never experienced a negative growth in study period. This was due to a aggressive approach by the bank in consolidating its business instead of cautious towards high-risk new business. In terms of C.V., SCBNL growth ratio of loan and advances seems to be less than that of NABIL.

The growth rate of short term financing of both the banks has a fluctuating trend. NABIL has recorded a high growth rate of 39.1% in F/Y 2006/2007 and a low negative growth rate of 14.41% in F/Y 2005/2006. Similarly, SCBNL has had a high growth rate of 14.23% in F/Y 2008/2009 and a low negative growth rate of 4.19% in F/Y 2005/2006. Overall, NABIL has been successful in increasing its net profit year after year.

The mean growth rate of NABIL is higher than SCBNL i.e., $14.22\% > 5.18\%$. This is due to a surge in high disbursement of short term financing of NABIL than that of SCBNL.

4.1.2 Statistical Tools

Under this topic, some statistical tools such as coefficient of correlation analysis between different variables, trend analysis of deposits, loan and advances,

investment and net profit as well as hypothesis test (t- statistic) are used to achieve the objectives of the study. These statistical tools are as follows:

A) Coefficient of Correlation Analysis

Under this topic, Karl Pearson’s coefficient of correlation is used to find out the relationship between short term financing and deposit, short term financing and total current assets, and short term financing and investment.

i) Coefficient of Correlation Between Short Term Financing and Deposits

The coefficient of correlation between short term financing and total deposit measures the degree of relationship between them. In our study, we have taken short term financing amount as an dependent variable denoted by (x) and total deposit as independent variable (y). The main objective of calculating ‘r’ between these two variables is to justify whether deposits are significantly used as short term financing or not. (for detail see appendix A₁ and A₂).

Table No. 16

Correlation between short term financing and deposits

Bank	Evaluation Criteria	
	r	r ²
NABIL	0.9574	0.9166
SCBNL	0.993	0.986

In the above table the coefficient of correlation between short term financing and total deposit in case of NABIL is 0.9574. This indicates that there is a higher positive relationship between short term financing and deposit. The calculated value of (r²) or coefficient of determination is 0.9166. This means 91.66% of variation of the dependent variable (short term financing) has been explained by the independent variable (deposit). The coefficient of correlation ‘r’ between short term financing and deposits in case of SCBNL is 0.993, which gives us an indication of higher positive correlation between them. Similarly, the value of coefficient of

determination (r^2) is found to be 0.986. This shows that 98.6% variation of dependent variable (short term financing) has been explained by the independent variable (deposits).

From the above analysis, we can conclude that both the banks show positive relationship between short term financing and total deposit. The relationship is highly significant in case of SCBNL and the value of (r^2) shows higher percentage of dependency. In case of NABIL the relationship is less significant and (r^2) shows slightly lower percentage of dependency than of SCBNL. It indicates SCBNL has been more successful in utilizing its deposits in a proper manner in short period financing than NABIL. Further, the increase in short term financing is due to effective mobilization of deposits, and other factors have marginal role in increase in loan and advances.

Correlation between short term financing and current assets

The coefficient of correlation between short term financing and current assets measures the degree of relationship between them. In our study, we have taken short term financing amount as a dependent variable denoted by (x) and current assets as independent variable (y). The main objective of calculating ‘r’ between these two variables is to justify whether current assets are significantly used as short term financing or not. (for detail see appendix A₃ and A₄).

Table no. 17

Bank	Evaluation Criteria	
	r	r^2
NABIL	0.9901	0.9802
SCBNL	0.9402	0.8841

In the above table the coefficient of correlation between short term financing and current assets in case of NABIL is 0.9901. This indicates that there is a higher positive relationship between short term financing and current assets. The calculated value of (r^2) or coefficient of determination is 0.9802. This mean

98.02% of variation of the dependent variable (short term financing) has been explained by the independent variable (current assets). The coefficient of correlation 'r' between short term financing and current assets in case of SCBNL is 0.9403, which gives us an indication of higher positive correlation between them. Similarly, the value of coefficient of determination (r^2) is found to be 0.8841. This shows that 88.41% variation of dependent variable (short term financing) has been explained by the independent variable (current assets).

From the above analysis, we can conclude that both the banks show positive relationship between short term financing and current assets. The relationship is highly significantly in case of NABIL and the value of (r^2) shows higher percentage of dependency. In case of SCBNL the relationship is less significant and (r^2) shows slightly lower percentage of dependency than of NABIL. It indicates NABIL has been more successful in utilizing its current assets in a proper manner in short period financing than SCBNL. Further, the increase in short term financing is due to effective mobilization of current assets, and other factors have marginal role in increase in loan and advances.

Correlation between short term financing and investments

The coefficient of correlation between short term financing and investment measures the degree of relationship between them. In our study, we have taken short term financing amount as a dependent variable denoted by (x) and investment as independent variable (y). The main objective of calculating 'r' between these two variables is to justify whether investment are significantly used as short term financing or not. (for detail see appendix A₅ and A₆).

Table No. 18

Bank	Evaluation Criteria	
	r	r²
NABIL	0.6718	0.4513
SCBNL	0.887	0.7867

In the above table the coefficient of correlation between short term financing and investment in case of NABIL is 0.6718. This indicates that there is a higher positive relationship between short term financing and investment. The calculated value of (r^2) or coefficient of determination is 0.4513. This mean 45.13% of variation of the dependent variable (short term financing) has been explained by the independent variable (investment). The coefficient of correlation 'r' between short term financing and investment in case of SCBNL is 0.887, which gives us an indication of higher positive correlation between them. Similarly, the value of coefficient of determination (r^2) is found to be 0.7867. This shows that 78.67% variation of dependent variable (short term financing) has been explained by the independent variable (investment).

From the above analysis, we can conclude that both the banks show positive relationship between short term financing and investment. The relationship is highly significantly in case of SCBNL and the value of (r^2) shows higher percentage of dependency. In case of NABIL the relationship is less significant and (r^2) shows slightly lower percentage of dependency than of SCBNL. It indicates SCBNL has been more concentrated in utilizing its investment in short period financing than NABIL.

B) Trend analysis and projection for next five years

This is known as time series analysis. The objectives of this analysis are to analyze the trend of deposit collection, its utilization in loan and advances and in short term financing of NABIL and SCBNL. This topic analyzes the trend of deposits, loan and advances, total short term financing and its projection for the next five years the basis of past performance and records available.

The projections are based on the following assumptions:

- ◆ The bank will run in this present position i.e. trend will repeat itself.
- ◆ Other things will remain constant or unchanged.
- ◆ The economy will remain in the present stage.
- ◆ Nepal Rastra Bank will not change its guidelines relating to commercial banks.

♦ The forecast will hold true only when the limitation of least square method is carried out.

1. Analysis of Trend value of Total Deposit

Under this topic, based on the trend values of deposit from F/Y 2004/2005 to 2013/2014, an attempt has been made to forecast the projection for next five years, i.e. up to F/Y 2013/2014.

The following table shows the trend value of deposits from F/Y 2004/2005 to 2013/2014 (For detail refer Appendix A₇ and A₈)

Table No.19
Trend values of Total Deposit of NABIL and SCBNL

Rs. In thousand

F/Y	Trend value of NABIL	Trend value of SCBNL
2004/2005	14119032	21161442
2005/2006	14586608	19363470
2006/2007	19347399	23061032
2007/2008	23342285	24647021
2008/2009	31915047	29743999
2009/2010	33966386.3	30329992.3
2010/2011	38401157	32574858.8
2011/2012	42835927.7	34819725.3
2012/2013	47270698.4	37064591.8
2013/2014	51705469.1	39309458.3

From the above comparative table it is clear that trend values of SCBNL and NABIL are in an increasing trend. If other things remain unchanged the total

deposit of NABIL is predicted to be Rs. 51705469.1 thousand and that of SCBNL to be 39309458.3 by the end of F/Y 2013/2014.

From the above trend analysis, it is quite obvious that NABIL's deposit collection has growth much better than SCBNL from F/Y 2006/2007 onwards. The trend values of total deposit of both NABIL and SCBNL are fitted in the trend lines given in figure.

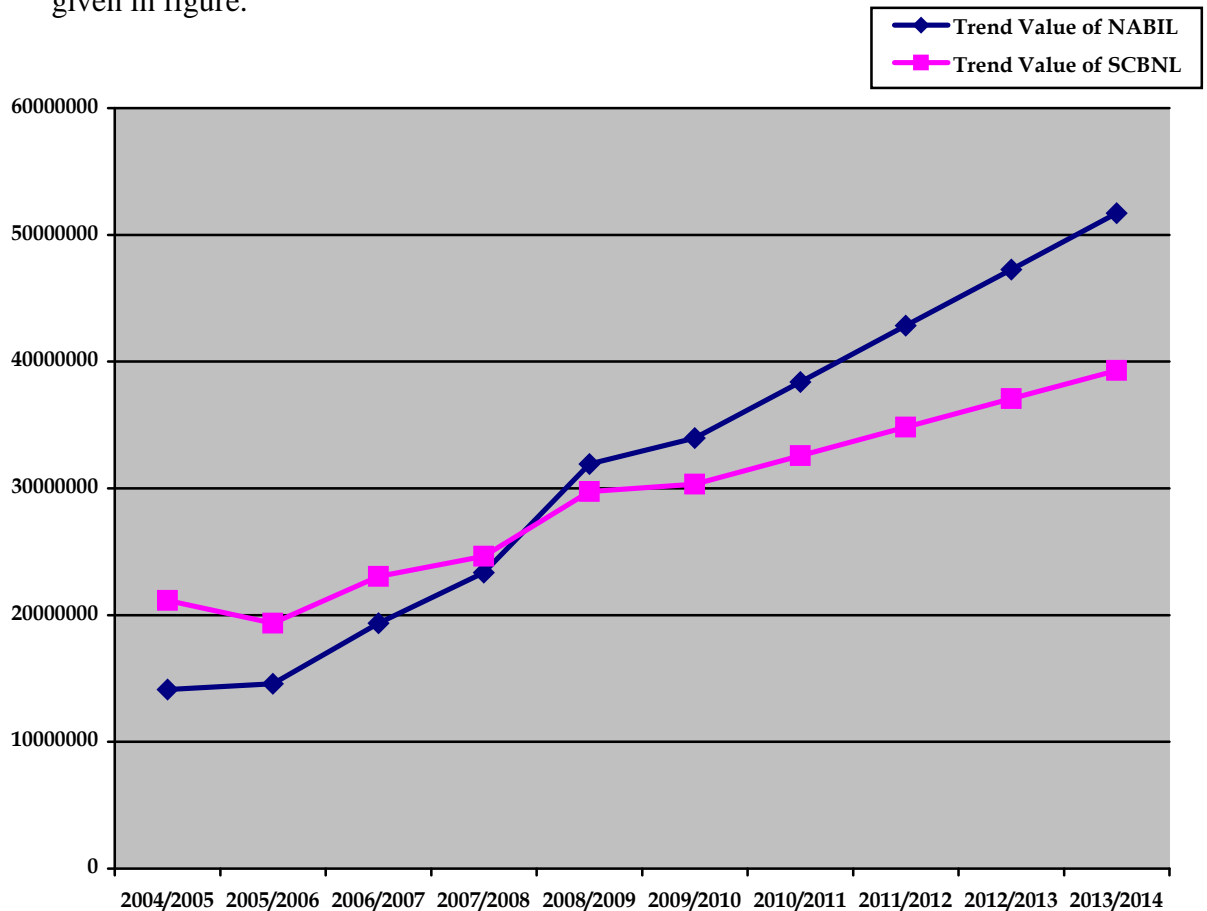


Fig No. 16

ii) Analysis of Trend Values of Loan and Advances

Here, the trend values of loan and advances of NABIL and SCBNL have been calculated for five years from F/Y 2004/2005 to 2013/2014 and the forecast for next five years. i.e. from F/Y 2009/2010 to 2013/2014 has been made (for detail refer Appendix A₉ and A₁₀)

Table No. 20

Trend Values of Loan and Advances of NABIL and SCBNL

Rs. In thousand

F/Y	Trend value of NABIL	Trend value of SCBNL
2004/2005	8189993	6410242
2005/2006	10586170	8143208
2006/2007	12922543	8935418
2007/2008	15545779	10502637
2008/2009	21365053	13718597
2009/2010	23114826	14634862.1
2010/2011	26245798.8	16332476
2011/2012	29376771.6	18030089.9
2012/2013	32507744.4	19727703.8
2013/2014	35638717.2	21425317.7

The above table clearly shows that the loan and advances of both the banks are in an increasing trend. Assuming that other thing will remain constant, the loan and advances of NABIL at the end of F/Y 2013/2014 is predicted to be Rs. 35638717.2 thousand. Similarly, the projection for SCBNL at the end of F/Y 2013/2014 is 21425317.7 thousand.

From the above trend analysis, it is quite clear that NABIL's loan and advances in relation to SCBNL is comparatively higher throughout the trend projection period. The above trend values of loan and advances of NABIL and SCBNL are fitted in the trend line given in:

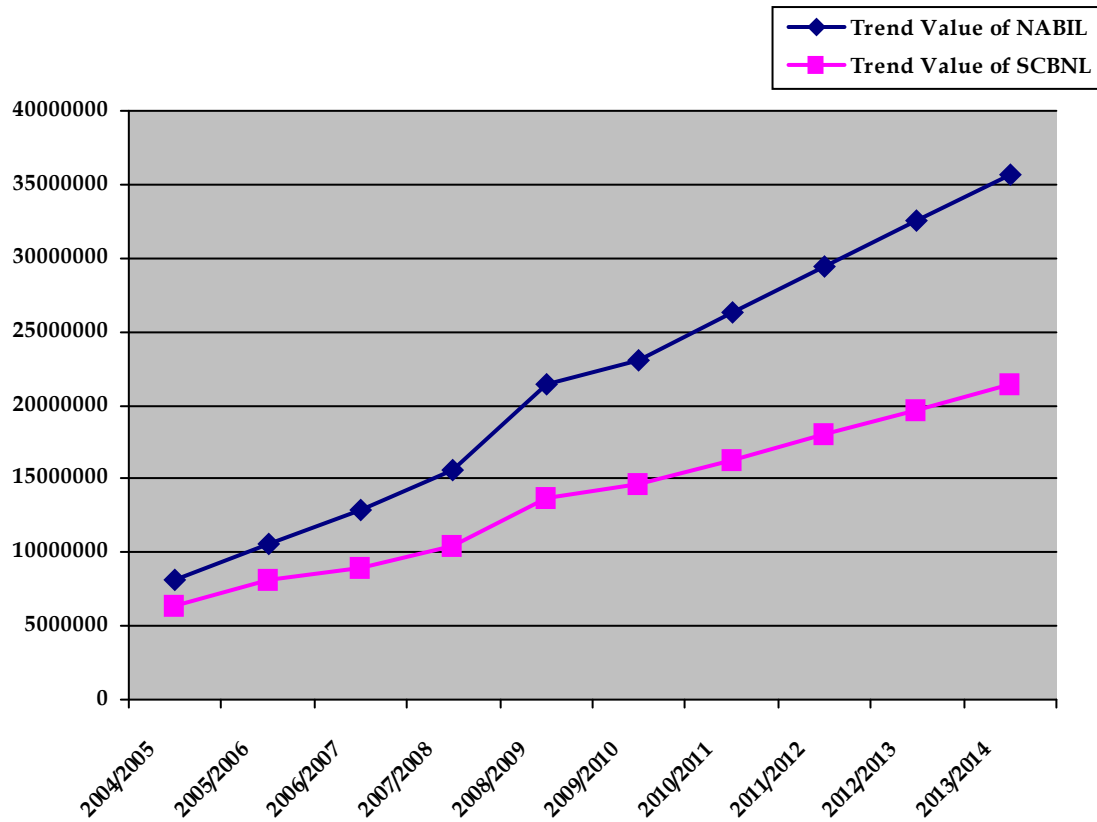


Fig No. 17

iii) Analysis of Trend Values of Total Short Term Financing

Under this topic, based on the trend values of short term financing from F/Y 2004/2005 to 2013/2014, an attempt has been made to forecast the projections for next five years i.e. up to F/Y 2013/2014.

The following table shows the trend value short term financing from F/Y 2004/2005 to 2013/2014 (for detail refer Appendix A₁₁ and A₁₂)

Table No. 21

Trend Values of Short Term Financing of NABIL and SCBNL

Rs. In thousand

F/Y	Trend value of NABIL	Trend value of SCBNL
2004/2005	7595200	12011000
2005/2006	6500300	11514000
2006/2007	9042000	13127000
2007/2008	12140800	13367000
2008/2009	13625700	15269000
2009/2010	15091250	15568300
2010/2011	16861400	16405200
2011/2012	18631550	17242100
2012/2013	20401700	18079000
2013/2014	22171850	18915900

From the above table it is clear that the trend value of both the banks are in an increasing trend. If other things remain unchanged total short term financing of NABIL is predicted to be Rs. 22171850 thousand in F/Y 2013/2014 and that of SCBNL to be Rs. 18915900 thousand. These values are highest under the review period.

The above table reveals that NABIL's total short term financing is higher than that of SCBNL throughout the trend projection period. It can be said that both NABIL and SCBNL have followed the policy of maximizing their short term financing. The above calculated trend values of NABIL and SCBNL are fitted in the trend line given in Figure

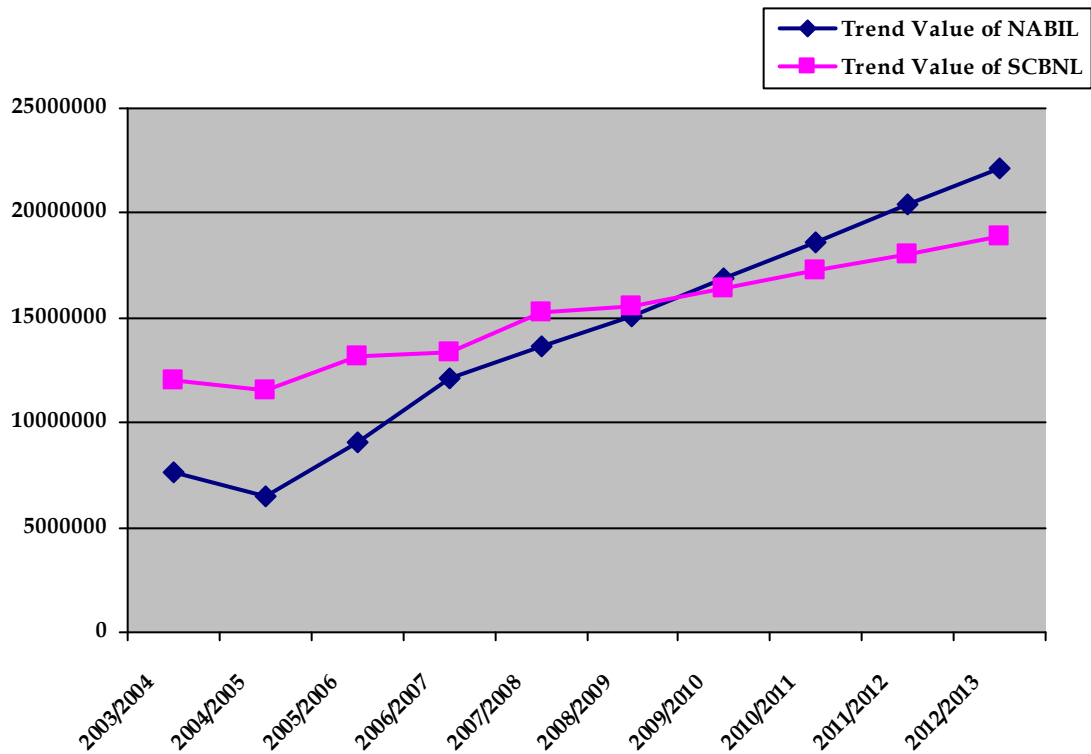


Fig. 18

Test of Hypothesis

Under this topic, an effort has been made to test the significance level regarding the parameter of the population on the basis of sample drawn from the population. The following steps have been followed in the test of hypothesis:

1. Formulating of hypothesis

- Null Hypothesis
- Alternative Hypothesis

2. Computing the test statistic

3. Fixing the level of significance

4. Deciding two tailed or one tailed test

5. Having decision

i) t-test

In this research study the sample is small i.e., n=5. Hence, to deal with small sample 't' test is used. Suppose we want to test if two independent samples have been drawn from two normal populations having the same means, the population variance being equal.

We set up the Null Hypothesis $H_0: \mu = \mu_y$ i.e. the samples have been drawn from the normal population, or the sample means \bar{x} and \bar{y} do not differ significantly. Under the assumption that $\sigma^2 = \sigma_y^2$ i.e. population variances are equal but unknown, the test statistic under H_0 is:

$$= \frac{\bar{x} - \bar{y}}{\sqrt{s^2 \times \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \sim \dots\dots \text{w.d.f } n_1 + n_2 - 2$$

Where $\bar{x} = \frac{\sum x}{n_1}$ $\bar{y} = \frac{\sum y}{n_2}$

And $S^2 = \frac{1}{n_1 + n_2 - 2} \left[\sum (x - \bar{x})^2 + \sum (y - \bar{y})^2 \right]$

is unbiased estimate the common population variance σ^2 based on both the samples. By comparing the tabulated value of 't' for $n_1 + n_2 - 2$ d.f. at the desired level of significance. Usually 5% we reject or retain the null hypothesis H_0 .

a) Test of hypothesis on short term financing to total assets ratio of NABIL and SCBNL.

Let the short term financing to total assets ratio of NABIL and SCBNL be denoted by X and Y respectively.

Calculated $S^2 = 11.96$ (for detail see Appendix)

Solution:

Null Hypothesis (H_0): $\mu_1 = \mu_2$ i.e. there is no significant difference in mean ratio of short term financing to total assets between NABIL and SCBNL.

Alternative Hypothesis (H₁): $\mu_1 \neq \mu_2$ i.e. there is significant difference in mean ratio of short term financing to total assets between NABIL and SCBNL.

Calculation of Test Statistic

Under H₀, the test statistic is

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{s^2 \left(\frac{1}{n^1} + \frac{1}{n^2} \right)}} \quad (\text{Withd.f.} = n_1 + n_2 - 2)$$

$$= \frac{49.4 - 40.96}{\sqrt{11.96 \left(\frac{1}{5} + \frac{1}{5} \right)}} = \frac{8.44}{2.187} \quad |t| = 3.86$$

Calculated of tabulated value:

$$d. f. = 5 + 5 - 2 = 8$$

The tabulated value of t @ 5% level of significance for 8 d. f. 2.306.

Decision:

Since calculated 't' is much greater than tabulated 't' is highly significant. Hence H₀: $\mu_1 = \mu_2$ is rejected at 5% level of significance and we can conclude that there is significant difference between mean ratios of short term financing to total assets of NABIL and SCBNL.

b) Test of Hypothesis on short term financing to total deposit ratio of NABIL and SCBNL]

Let short term financing to total deposits ratio of NABIL and SCBNL be denoted by X and Y respectively.

Calculated $S^2 = 16.15$ (for detail see Appendix)

Solution:

Null Hypothesis (H₀) : $\mu_1 = \mu_2$ i.e. there is no a significant difference in mean ratio of short term financing to total deposits between NABIL and SCBNL.

Alternative Hypothesis (H₁): $\mu_1 \neq \mu_2$ i.e. there is a significant difference in mean ratio of short term financing to total deposits between NABIL and SCBNL.

Calculation of Test Statistic

Under H₀, the test statistic is

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{s^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \quad (\text{Withd.f.} = n_1 + n_2 - 2)$$

$$= \frac{47.96 - 55.74}{\sqrt{16.15 \left(\frac{1}{5} + \frac{1}{5} \right)}} = \frac{-7.78}{2.5416}$$

$$|t| = 3.06$$

Calculated of tabulated value:

$$d. f. = 5 + 5 - 2 = 8$$

The tabulated value of t @ 5% level of significance for 8 d. f. 2.306.

Decision:

Since calculated 't' is greater than tabulated 't' is highly significant. Hence H₀: $\mu_1 = \mu_2$ is rejected at 5% level of significance and we can conclude that there is significant difference between mean ratios of short term financing to total deposit of NABIL and SCBNL.

c) Test of Hypothesis on net profit to short term financing ratio of NABIL and SCBNL.

Let short term financing to total deposits ratio of NABIL and SCBNL be denoted by X and Y respectively.

Calculated $S^2 = 0.6498$ (for detail see Appendix)

Solution:

Null Hypothesis (H₀) : $\mu_1 = \mu_2$ i.e. there is no a significant difference in mean ratio of net profit to short term financing between NABIL and SCBNL.

Alternative Hypothesis (H₁): $\mu_1 \neq \mu_2$ i.e. there is a significant difference in mean ratio of net profit to short term financing between NABIL and SCBNL.

Calculation of Test Statistic

Under H₀, the test statistic is

$$t = \frac{\bar{x} - \bar{y}}{\sqrt{s^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \quad (\text{Withd.f.} = n_1 + n_2 - 2)$$

$$= \frac{6.41 - 4.94}{\sqrt{0.6498 \left(\frac{1}{5} + \frac{1}{5} \right)}} = \frac{1.47}{0.5098}$$

$$|t| = 2.88$$

Calculated of tabulated value:

$$d. f. = 5 + 5 - 2 = 8$$

The tabulated value of t @ 5% level of significance for 8 d. f. 2.306.

Decision:

Since calculated 't' is slightly greater than tabulated 't' it is highly significant. Hence H₀: $\mu_1 = \mu_2$ is rejected at 5% level of significance and we can conclude that there is significant difference between mean ratios of net profit to short term financing of NABIL and SCBNL.

4.2. MAJOR FINDINGS OF THE STUDY

Having completed the basic analysis required for this study, the final and the most important task of the researcher is to enlist the findings. This will give meaning to the desired result. A comprehensive summary of the major findings of the study is presented below.

The main findings of the study derived from the analysis of financial data of NABIL and SCBNL are given below.

4.2.1. Liquidity Ratio

The liquidity position of NABIL and SCBNL reveals that:

- ❖ From the analysis of current ratio it is found that the mean ratio of NABIL is slightly lower than SCBNL. The ratio of both the banks is consistent. The mean current ratio of both the banks is greater than one.
- ❖ The mean ratio of cash and bank balance to total deposits of SCBNL is slightly higher than NABIL. SCBNL has better liquidity position than NABIL because of high percentage of liquid assets. This shows SCBNL readiness to meet its customer requirement. On the contrary, a high liquidity also indicates the inability of the bank to mobilize its current assets. The ratios of NABIL are more consistent than SCBNL.
- ❖ The mean ratio of cash and bank balance to current assets of SCBNL is slightly lower than NABIL. This shows NABIL's greater capacity to meet its customer's daily cash requirement than SCBNL. The ratios of NABIL are less variable and more consistent than SCBNL.
- ❖ The mean ratio of loan and advances to current assets of NABIL is comparatively very higher than SCBNL. The variability of ratios of NABIL is slightly greater than SCBNL.

From the above findings, we can conclude that the liquidity position of SCBNL is comparatively better than NABIL. It has the highest cash and bank balance to total deposit, cash and bank balance to current assets is slightly lower. SCBNL is in a better position to meet its daily cash requirement. NABIL has a lower current ratio, which justifies that it is also capable enough to meet its current obligations but is less than SCBNL current ratio.

4.2.2 Asset Management Ratio

The asset management ratio of NABIL and SCBNL reveals that:

- ❖ The mean ratio of loan and advances to total deposit ratio of NABIL is higher than SCBNL. In terms of consistency both have been stable in their ratios.
- ❖ The mean ratio of total investment to total deposits of SCBNL is higher than NABIL. The ratios of SCBNL are less variable consistent and less variable than NABIL.
- ❖ The mean ratio of loan and advances to total assets of NABIL is higher than SCBNL. The ratios of NABIL are less variable and more consistent than SCBNL.

From the above findings we can conclude that NABIL has been more successful in mobilization of its total deposits and working fund as loan and advances. On the other hand, SCBNL appears to be stronger in mobilization of total deposits and total assets are investment. Both the banks have successfully managed their assets towards different income generation activities.

4.2.3 Profitability Ratios

The profitability ratios NABIL and SCBNL reveal that,

- ❖ The mean ratio of return on total loan and advances of SCBNL has been found to be significantly greater than NABIL. The ratios of SCBNL are more variable and less consistent than NABIL.
- ❖ The mean ratio of return on total short term financing of NABIL is slightly higher than SCBNL. The ratios of NABIL are less consistent and more variable than SCBNL.
- ❖ The mean ratio of total interest earned to total short term financing of NABIL is higher than SCBNL. NABIL's ratios are less stable and more variable than SCBNL.

- ❖ The mean ratio of total interest paid to total short term financing ratio of SCBNL is lower than NABIL. SCBNL ratios are less variable than NABIL ratios.

On the basis of above, we can conclude that SCBNL has been more successful in maintaining its higher return on loan and advances but NABIL is successful in earning from its total short term financing. On the other hand, NABIL has been more successful in term of earning power w.r.t. total short term financing. NABIL has been more successful in mobilization of its fund in interest bearing short term financing assets to earn higher interest income than SCBNL. SCBNL is in a better position than NABIL from interest payment point of view. NABIL has paid higher interest than SCBNL, whereas it seems to have collected its fund from cheaper sources than NABIL.

4.2.4. Risk Ratio

The risk ratio of NABIL and SCBNL reveals that,

- ❖ The mean liquidity risk ratio of NABIL is lower than SCBNL. On the contrary, NABIL's ratio are less uniform than SCBNL.
- ❖ The mean credit risk ratio of SCBNL is lower than NABIL. Both the banks have been fairly consistent in their ratios.
- ❖ The mean short term credit risk ratio of NABIL is lower than SCBNL. Both the banks have been fairly consistent in their ratios.

Based on above findings we can conclude that NABIL has been lower liquidity risk and short term credit risk than SCBNL. NABIL has greater exposure to risk in its financial operations than SCBNL.

4.2.5. Growth Ratio

- ❖ The mean growth rate of short term financing of NABIL is significantly higher than SCBNL.
- ❖ The mean growth of total deposit of NABIL is higher than SCBNL.

- ❖ The mean growth rate of total loan advances of NABIL significantly higher than SCBNL.

Based on the above findings, we can conclude that, NABIL has been more successful in increasing its deposits, short term financing and loan and advances during the study period, whereas, SCBNL has not been more aggressive in terms of increasing its deposit collection short term financing and loan and advances. While other banks have initiated a host of measures and schemes to attract customer deposits, SCBNL's strategy of shedding deposits seems to be off the tune and enjoying its operation in very selective and secure investment rather than aggressive approach towards loan disbursement or short term financing,

4.2.6. Co-efficient of Correlation Analysis

Co-efficient of correlation analysis between different variables of NABIL and SCBNL reveals that:

- ❖ SCBNL has a higher value of coefficient of correlation between short term financing and deposits than NABIL.
- ❖ The co-efficient of correlation between short term financing and current assets of NABIL is slightly higher than SCBNL.
- ❖ The co-efficient of correlation between short term financing and total investment of NABIL is less correlated, whereas the co-efficient of correlation between the same variables in case of SCBNL has a higher positive value.

In conclusion, we can say that there is a significant relationship between short term financing and deposits, short term financing and current assets, short term financing and total investment. In case of both NABIL and SCBNL, there exists a significant positive relationship between short term financing, deposits, current assets and total investment.

4.2.7. Trend Analysis and Projection for next five years

The trend analysis of deposits, loan and advances, total investment and net profit and its projection for next five years of NABIL and SCBNL reveals that:

- ❖ The deposits of both the banks have an increasing trend. The total deposit at NABIL is predicted to be 51705469.1 thousand and that of SCBNL to be 39309458.3 thousand on at the end of F/Y 2013/2014. The deposit collection of NABIL is much better than SCBNL.
- ❖ The loan and advances of both the banks have an increasing trend. The total loan and advance of NABIL is predicted to be 35638717.2 thousand and that of SCBNL to be 21425317.7 at the end of F/Y 2013/2014. The loan and advances of NABIL is much better compared to SCBNL.
- ❖ The total short term financing of both the bank have an increasing trend. The total short term financing of NABIL is projected at 22171850 thousand and that of SCBNL at 18915900 by the end of F/Y 2013/2014. SCBNL seems to have a less-focused policy with regards to total short term financing than NABIL.

4.2.8. Test of Hypothesis

The test of significance regarding the parameter of the population, on the basis of sample drawn from the population reveals that:

- ❖ There is significant difference in mean ratio of short term financing to total assets between NABIL and SCBNL.
- ❖ There is significant difference in mean ratio of short term financing to total deposits between NABIL and SCBNL.
- ❖ There is significant difference in mean ratio of net profit to short term financing between NABIL and SCBNL.

CHAPTER 5

Summary conclusion and recommendation

This chapter is the last part of the study where whole study is summarized in a very condensed form all the result came out from the analysis and all the literature reviewed in the thesis preparation period. After all the study work presented it is summarized in a short form to give a quick overlook at the study. The conclusion is made upon the analysis made in the previous chapters. The conclusion made should support the literature which should not be lengthy discussion and should be restricted in the few sentences. Where recommendations are made as the final product of the thesis. It can be written in two types, first to recommend the future researcher and other to the organization or sample upon which it is conducted. The student has to go from the statement of the problem to the recommendation for the solution of the problem.

5.1 SUMMARY

The study has presented and analyzed the short term financing by commercial banks of Nepal with reference to SCBNL and NABIL. As we know that short term financing are all the financed amount that has maturity period less than one year. The short term financing of commercial banks are shown in assets side of the balance sheet under various name. They can be – loan advance against fixed deposit and government securities, Money at call, bill discounted, letter of credit with maturity less than one year. The banks disburse short term lending in secured and unsecured basis. Secured financing involves collateral that can be rather raw material finished goods, fixed assets and other properties of borrower. Whereas unsecured financing is disbursed by banks in accordance to the borrower's credibility in the market and the past performance. It is found that, generally short term financial requirements are demanded by manufacturing sector. Thus practice is limited with the manufacturing sector only but huge potentiality of tourism and agriculture. Banks are unable to reach that sector where short term financing can be milestone.

It is been witnessed that the practice of commercial banks are very limited to their own profit building rather than to contributing to national economic prosperity. The government has also failed to recognize their role towards the financial sector. Export/import by the manufacturing sector can be highly facilitated by the financial sector through short term financing but the element of collateral or credibility comes before them. Because of this fact, they are unable to reach to their financial destination, where as short term financing usage in agro and tourism sector are very less chosen by commercial banks because of their concentration within the major cities. It has been found that the outreach of commercial banks especially the private commercial banks has outreached very less from major cities for the main borrower of agro and tourism industries are far away from their lender because of it they paid a huge rate of interest for their short term financing and suffering a pain of financial burden on them.

The problem associated with short term financing is basically of two types, one which is associated within the organization and other outside the organization. The organizational problem are the financial position of lending banks, performance and position as well as the policy of the banks, whereas short term financing are highly and mostly affected by the external environment that is political, legal, socio-cultural, economic and environmental and technological environment.

We can summarize the problem of short term financing with the two aspect associated with it. They are:

1. Lender
2. Borrower

The summary of the perspective with the short term financing of commercial banks of the Nepal can be said in one word that is “prosperous”. It is said because the usage areas of this kind of financing are the major contributor to the national economy. Advantages associated with the short term financing are numerous for both the lender and the borrower. We all know that Nepal is still agro based country with huge possibility of growth in tourism as well as in hydro power. It can be a hub for trade between our neighbors “China and India” becoming as a transit point. Having above mentioned potentialities various sector of Nepal requires funds in a short term basis which can be fulfilled by the short term financing. For these

commercial banks has to identify the area of usage. The practice should not be enjoyed within the limited perimeter of few major cities, it has to outreach to the rural ground for better services. It has to replace the private lender man as well as serve the unreachable area of the economy. With huge capital, the commercial banks can operate in various mode of their service for outreaching to the rural areas who can be the major player in the economy of the country. The agro sector requires short term financing for the seasonal farming requirement and tourism sector that lacks fund for the short period for their seasonal income period. The trade and merchandising of the indigenous product of the rural areas “agro, arts” also lacks short term funds which can be funded by commercial banks. Here commercial banks are focused because currently they are practicing modern banking instruments and can reach to unnerved places with their huge capital. In this way, the study finds great perspective of short term financing in Nepal because of the areas of usage where it can be expanded along with the growth of the commercial banks in term of their deposit, loan disbursed and investment rate. Both banks who are selected for the study are, growing with their tremendous performance in the market and holds a huge perspective in expanding the short term financing practice for the sake of economic growth of the nation as well as to meet the requirements of all sector of economy along with the unprivileged sector.

5.2 CONCLUSION

After collecting, classifying and analyzing the data using various tools and techniques along with the literature parts that are reviewed for the describing of practice, problem and perspective of short term financing of commercial banks of Nepal, we can conclude the study in accordance to the analyzing method used and the outcomes of the analysis made.

The conclusions are made of following methods that are used for the study:

1. Liquidity Ratio:

The study reveals that the current ratios of both the banks are always greater than one in the study period (period SCBNL has 0.86 in 06/07). Which should be considered satisfactory but the variation in the current ratios shows inconsistency in their level of current assets and current liabilities? The liquidity position of

SCBNL is better than NABIL (mean current ratio of SCBNL > mean current ratio of NABIL, 2.79>1.86). The cash and bank balance with respect to deposit of SCBNL is greater than NABIL. This indicates SCBNL is in a better position in context of customer's requirement fulfillment. But at the same time none earning availability of cash puts the SCBNL in a position of income generating from its deposit. With fewer ratios of cash and banks to total deposit shows their capacity of income generation or revolving the deposit. The position of cash and bank balance to the current assets of NABIL is slightly higher than the SCBNL. But variation in SCBNL shows the fluctuation in their position of holding cash balance in the study period of five year.

2. Assets Management Ratio:

NABIL has been more successful in mobilization of its total deposit as loan and advances and achieving high profit with comparison to SCBNL because total loan and advance to total deposit ratio of NABIL is greater than SCBNL. In terms of investment SCBNL is more focused or can be said more concentrated in comparison to NABIL because the investment with respect to deposit of SCBNL is higher than that of NABIL. This shows that SCBNL is mainly focused on investment where as NABIL is focused on loan and advances for mobilizing its deposit. In terms of short term financing with respect to total deposit we can conclude that SCBNL has lend over NABIL. Both banks has finance in short term maturity almost half of their total deposit but SCBNL with mean ratio of 55.74% has a greater ratio comparing to NABIL's 47.96% but both banks are unable to increase its short term financing practice over the five year of time.

3. Profitability Ratio:

From the profitability point of view SCBNL is more successful than NABIL with respect to its total available resources. The interest earning power to the total short terms financing of NABIL is higher than SCBNL whereas ratios interest paid to short term financing of NABIL is higher than SCBNL, this all profitability of banks i.e. net profit to total loan and advance ratio of SCBNL is higher than NABIL but profitability in terms of short term financing NABIL looks comparatively successful.

4. Credit Risk Ratio:

In terms of credit risk ratio, the total loan and advances with respect to total assets NABIL is higher than SCBNL, which shows higher average credit risk of NABIL in comparison to SCBNL. By the result of analysis of liquidity risk NABIL has lower risk comparing to SCBNL whereas short term credit risk that is short term financing to total assets of SCBNL is higher than NABIL.

5. Growth Ratio:

NABIL has been successful in maintaining a steady growth rate on deposit and loan and advances in comparison to SCBNL. Mean growth of deposit and a loan and advances is higher than SCBNL over five year period of time. The average growth rate of short term financing of NABIL is greater than SCBNL. But the variation in short term financing of NABIL is quite higher than SCBNL.

6. Correlation of short term financing with total deposit, current assets and investment:

The result of correlation between short term financing and total deposit, short term financing and current assets, as well as short term financing and investment are positively correlated of both banks. It indicates that relation of short term finance with deposit, current assets and investment of the banks.

7. Trend Analysis:

The trend value of deposit, loan and advances and short term financing of NABIL and SCBNL are in increasing trend. The trend value of deposit, short term financing and loan and advances of NABIL are proportionately higher than SCBNL in all year.

8. Hypothesis formulation :-

We can state that there is a significant difference in the mean ratio short term financing/ total assets between NABIL bank and SCBNL.

There is significant difference in the mean ratio of short term financing/total deposit between NABIL and SCBNL.

There is significant difference in the mean net profit/short term financing between NABIL and SCBNL.

5.3. RECOMMENDATION

The study named “Short term financing: practice, problem and perspective in Nepalese Joint Venture Bank with special reference to NABIL Bank Limited and Standard Chartered Bank Nepal Limited” has analyzed various facts associated with short term financing. These facts are associated with its practice, problem and future perspective of both lender and borrower for short term financing. On the basis of analysis, findings following recommendations are made. Such recommendation will increase the practice, reduce the inclusive problem and identify the future perspective for the commercial banks of Nepal. For better and effective usage of short term financing. The recommendation to the commercial banks of Nepal is as follows:

- a. The banks should increase its deposit in order to mobilize it in various profitable area that can be inform of loan and advances, investment etc taking consideration of credit risk.
- b. The bank should expand their branches in rural areas for the expansion of their activities and operation which will certainly helps the banks to grow as well as serving unreached rural areas.
- c. The bank should be flexible in terms of their lending policy. The lending area which will help the economic betterment should be considered priority and reduction should be made in their term and condition for loan disbursement.
- d. Possible area of demand for short term financing should be identified and analysis for such financing based on risk and return for the better outcomes of the financing. In context of Nepal agriculture, tourism and hydro electricity can be the possible potential areas of usage of short term financing.

- e. Terms and condition related to short term financing i.e. collateral and credibility should be reviewed and suitable and reasonable method ought to be adopted for the appropriate disbursement.
- f. Banks should not force the borrower to payback the obligation instead of it, the bank should play the counselor and supportive role with the borrowing parties for both their mutual benefits.
- g. The liquidity risk factor should be considered while financing for the short period. The factor of availability of fund during the daily operation should met after short period financing.
- h. The banks should operate its activities with the government. In the context of economic enhancement, government takes help of commercial banks. In such case lending and investment risk has to take cared by the government where as commercial banks should help government for their goal attainment.
- i. International trade practice can only be possible through short term financing by funding export/import of the goods. Thus commercial bank must acquire global recognition for widening its borderless operation through global practice.
- j. Major sector contributing to national GDP has to be financed by commercial banks. Undoubtedly those sectors are the backbone of the nation. They have to be held up by commercial banks in their requirement in both short term and long term period for the continuous operation.

The study expect that the above mentioned recommendation will helps the commercial banks for their better operational efficiency in identifying, disbursement and realization of short term financing. In other word the study anticipate recommendation to assist related and perspective individual/organization for their sake of their interest at direct or indirect way.

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Appendix - 1**NABILBANK LTD****Rs. In thousand**

S. N.	F/Y	2004/05	2005/06	2006/07	2007/08	2008/09
1	Current Assets	1132900	8819200	13857500	1695600	20122100
2	Current Liabilities	5387500	4264500	6661000	9258500	14923600
3	Cash and Bank Balance	970486	559381	630238	1399825	2671141
4	Total Investment	5835948	4267233	6178533	8945310	9939771
5	Total Deposit	14119032	14586608	19347399	23342285	31915047
6	Loan and Advances	8189993	10586170	12922543	15545779	21365053
7	Total Interest Earned	1001617	1068747	1309998	1587759	1978697
8	Total Interest Paid	282948	243545	357161	555710	758436
9	Net Profit	455320	520114	635262	673960	746468
10	Short Term Financing	7595200	6500300	9042000	12140800	13625700

Appendix - 2

STANDARD CHARTERED BANK NEPAL LTD.

Rs. In thousand

S. N.	F/Y	2004/05	2005/06	2006/07	2007/08	2008/09
1	Current Assets	19283000	17733000	20624000	22543000	23550000
2	Current Liabilities	3555000	5870000	23873000	9468000	10272000
3	Cash and Bank Balance	2023164	1111117	1267241	2021021	2050243
4	Total Investment	11360328	9702553	12838555	13533233	13902819
5	Total Deposit	21161442	19363470	23061032	24647021	29743999
6	Loan and Advances	6410242	8143208	8935418	10502637	13718597
7	Total Interest Earned	1042176	1058678	1189603	1411982	1591196
8	Total Interest Paid	257809	254127	303198	413055	471730
9	Net Profit	537800	536245	658756	691668	818921
10	Short Term Financing	12011000	11514000	13127000	13367000	15269000

Appendix - 3

NABILBANK LTD

Current Ratio

F/Y	Current Assets	Current Liabilities	Ratio
2004/2005	11329000	5387500	2.1
2005/2006	8819200	4264500	2.07
2006/2007	13857500	6661000	2.08
2007/2008	16956600	9258500	1.83
2008/2009	20122100	14923600	1.35

STANDARD CHARTERED BANK NEPAL LTD.

Current Ratio

F/Y	Current Assets	Current Liabilities	Ratio
2004/2005	19283000	3555000	5.42
2005/2006	17733000	5870000	3.02
2006/2007	20624000	23873000	0.86
2007/2008	22543000	9468000	2.38
2008/2009	23550000	10272000	2.29

Appendix – 4

NABILBANK LTD

Cash and Bank Balance to Total Deposit Ratio

F/Y	Cash and Bank Balance	Total Deposit	Percentage
2004/2005	970486	14119032	6.87
2005/2006	559381	14586608	3.83
2006/2007	630238	19347399	3.26
2007/2008	1399825	23342285	5.99
2008/2009	2671141	31915047	8.37

STANDARD CHARTERED BANK NEPAL LTD.

Cash and Bank Balance to Total Deposit Ratio

F/Y	Cash and Bank Balance	Total Deposit	Percentage
2004/2005	2023164	21161442	9.56
2005/2006	1111117	19363470	5.74
2006/2007	1276241	23061032	5.53
2007/2008	2021021	24647021	8.2
2008/2009	2050243	29743999	6.89

Appendix – 5

NABILBANK LTD

Cash and Bank Balance to Current Asset Ratio

F/Y	Cash and Bank Balance	Current Asset	Ratio
2004/2005	970486	11329000	8.56
2005/2006	559381	8819200	6.34
2006/2007	630238	13857500	4.55
2007/2008	1399825	16956600	8.25
2008/2009	2671141	20122100	13.27

STANDARD CHARTERED BANK NEPAL LTD.

Cash and Bank Balance to Current Asset Ratio

F/Y	Cash and Bank Balance	Current Asset	Ratio
2004/2005	2023164	19283000	10.49
2005/2006	1111117	17733000	6.26
2006/2007	1276241	20624000	6.18
2007/2008	2021021	22543000	8.96
2008/2009	2050243	23553000	8.71

Appendix – 6

NABILBANK LTD

Loan and Advances to Current Asset Ratio

F/Y	Loan and Advances	Current Asset	Percentage
2004/2005	8189993	11329000	72.3
2005/2006	10586170	8819200	120
2006/2007	12922543	13857500	93.2
2007/2008	15545779	16956600	91.7
2008/2009	21365053	20122100	106.2

STANDARD CHARTERED BANK NEPAL LTD.

Loan and Advances to Current Asset Ratio

F/Y	Loan and Advances	Current Asset	Percentage
2004/2005	6410242	19283000	28.67
2005/2006	8143208	17733000	29.55
2006/2007	8935418	20624000	30.52
2007/2008	10502637	22543000	28.43
2008/2009	13718597	23553000	28.15

Appendix – 7

NABILBANK LTD

Loan and Advances to Total Deposit Ratio

F/Y	Loan and Advances	Total Deposit	Percentage
2004/2005	8189993	14119032	58
2005/2006	10586170	14586608	72.6
2006/2007	12922543	19347399	66.8
2007/2008	15545779	23342285	66.6
2008/2009	21365053	31915047	66.9

STANDARD CHARTERED BANK NEPAL LTD.

Loan and Advances to Total Deposit Ratio

F/Y	Loan and Advances	Total Deposit	Percentage
2004/2005	6410242	21161442	30.2
2005/2006	8143208	19363470	42
2006/2007	8935418	23061032	38.7
2007/2008	10502637	24647021	42.6
2008/2009	13718597	29743999	46.1

Appendix – 8

NABILBANK LTD

Total Investment to Total Deposit Ratio

F/Y	Total Investment	Total Deposit	Percentage
2004/2005	5835948	14119032	41.3
2005/2006	4267233	14586608	29.2
2006/2007	6178533	19347399	31.9
2007/2008	8945310	23342285	38.3
2008/2009	9939771	31915047	31.1

STANDARD CHARTERED BANK NEPAL LTD.

Total Investment to Total Deposit Ratio

F/Y	Total Investment	Total Deposit	Percentage
2004/2005	11360328	21161442	53.7
2005/2006	9702553	19363470	50.1
2006/2007	12838555	23061032	55.7
2007/2008	13553233	24647021	54.9
2008/2009	13902819	29743999	46.7

Appendix – 9

NABILBANK LTD

Loan and Advances to Total Assets Ratio

F/Y	Loan and Advances	Total Assets	Percentage
2004/2005	8189993	16745487	48.9
2005/2006	10586170	17186331	61.6
2006/2007	12922543	22329971	57.9
2007/2008	15545779	27253393	54
2008/2009	21365053	37132759	57.5

STANDARD CHARTERED BANK NEPAL LTD.

Loan and Advances to Total Assets Ratio

F/Y	Loan and Advances	Total Assets	Percentage
2004/2005	6410242	23642060	27.1
2005/2006	8143208	21781679	37.4
2006/2007	8935418	25767352	34.7
2007/2008	10502637	28596689	36.7
2008/2009	13718597	33335788	41.1

Appendix – 10

NABILBANK LTD

Return on Loan and Advances Ratio

F/Y	Net profit	Loan and Advances	Percentage
2004/2005	455320	8189993	5.56
2005/2006	520114	10586170	4.91
2006/2007	635262	12922543	4.92
2007/2008	673960	15545779	4.33
2008/2009	746468	21365053	3.49

STANDARD CHARTERED BANK NEPAL LTD.

Return on Loan and Advances Ratio

F/Y	Net profit	Loan and Advances	Percentage
2004/2005	537800	6410242	8.39
2005/2006	536245	8143208	6.58
2006/2007	658756	8935418	7.37
2007/2008	691668	10502637	6.59
2008/2009	818921	13718597	5.96

Appendix – 11
NABILBANK LTD

Return on Total Short Term Financing Ratio

F/Y	Net profit	Total Short Term Financing	Percentage
2004/2005	455320	7595200	6
2005/2006	520114	6500300	8
2006/2007	635262	9042000	7.02
2007/2008	673960	12140800	5.55
2008/2009	746468	13625700	5.48

STANDARD CHARTERED BANK NEPAL LTD.

Return on Total Short Term Financing Ratio

F/Y	Net profit	Total Short Term Financing	Percentage
2004/2005	537800	1201100	4.48
2005/2006	536245	11514000	4.66
2006/2007	658756	13127000	5.02
2007/2008	691668	13367000	5.17
2008/2009	818921	15269000	5.36

Appendix – 12

NABILBANK LTD

Total Interest Earned to Total Short Term Financing Ratio

F/Y	Total Interest Earned	Total Short Term Financing	Percentage
2004/2005	1001617	7595200	13.19
2005/2006	1068747	6500300	16.44
2006/2007	1309958	9042000	14.49
2007/2008	1587759	12140800	13.08
2008/2009	1978697	13625700	14.2

STANDARD CHARTERED BANK NEPAL LTD.

Total Interest Earned to Total Short Term Financing Ratio

F/Y	Total Interest Earned	Total Short Term Financing	Percentage
2004/2005	1042176	12011000	8.67
2005/2006	1058678	11514000	9.19
2006/2007	1189603	13127000	9.6
2007/2008	1411982	13367000	10.56
2008/2009	1591196	15269000	10.42

Appendix – 13

NABILBANK LTD

Total Interest Paid to Total Short Term Financing Ratio

F/Y	Total Interest Paid	Total Short Term Financing	Percentage
2004/2005	282948	7595200	3.72
2005/2006	243545	6500300	3.75
2006/2007	357161	9042000	3.95
2007/2008	555710	12140800	4.58
2008/2009	758436	13625700	5.56

STANDARD CHARTERED BANK NEPAL LTD.

Total Interest Paid to Total Short Term Financing Ratio

F/Y	Total Interest Paid	Total Short Term Financing	Percentage
2004/2005	275809	12011000	2.29
2005/2006	254127	11514000	2.21
2006/2007	303198	13127000	2.81
2007/2008	413055	13367000	3.09
2008/2009	471730	15269000	3.09

Appendix – 14

NABILBANK LTD

Short Term Financing to Total Assets Ratio

F/Y	Short Term Financing	Total Assets	Percentage
2004/2005	7595200	16745487	45.3
2005/2006	6500300	17186331	37.8
2006/2007	9042000	22329971	40.5
2007/2008	12140800	27253393	44.5
2008/2009	13625700	37132759	36.7

STANDARD CHARTERED BANK NEPAL LTD.

Short Term Financing to Total Assets Ratio

F/Y	Short Term Financing	Total Assets	Percentage
2004/2005	12011000	236402060	50.8
2005/2006	11514000	21781679	52.8
2006/2007	13127000	25767352	50.9
2007/2008	13367000	28596689	46.7
2008/2009	15269000	33335788	45.8

Appendix A – 1

NABILBANK LTD

Correlation between short term financing and total deposit

In million Rs.

F/Y	Short term financing (X)	Total Deposit (Y)	$x = (x - \bar{x})$ (9780.8)	x^2	$y = (y - \bar{y})$ (20662.07)	y^2	xy
04/05	7595.2	14119.03	-2185.6	4776847.36	-6543.04	42811372.44	14300468.22
05/06	6500.3	14586.61	-3280.5	10761680.25	-6075.46	36911214.21	19930546.53
06/07	9042	19347.39	-738.8	545825.44	-1314.68	1728383.5	971285.58
07/08	12140.8	23342.28	2360	5569600	2680.21	7183525.64	6325295.6
08/09	13625.7	31915.05	3844.9	14783256.01	11252.98	126629558.9	43266582.8
	$\Sigma x = 48904$	$\Sigma y = 1033103.35$		$\Sigma x^2 = 36437209.06$		$\Sigma y^2 = 215264054.7$	$\Sigma xy = 84794178.73$

Here, N = 5

$$\bar{x} = \frac{\sum x}{N} = \frac{48904}{5} = 9780.8$$

$$\bar{y} = \frac{\sum y}{N} = \frac{1033103.35}{5} = 20662.07$$

We have,

$$\sum x^2 = 36437209.06$$

$$\sum y^2 = 215264054.7$$

$$\sum xy = 84794178.73$$

Calculation of correlation coefficient (r) :

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{84794178.73}{\sqrt{36437209.06} \sqrt{21564054.7}} = \frac{84794178.73}{88564221.69} = 0.9574$$

or $r = 0.9574$ $r^2 = 0.9166$

Appendix A – 2

SCBNL

Correlation between short term financing and total deposit

In million Rs.

F/Y	Short term financing (X)	Total Deposit (Y)	$x = (x - \bar{x})$ ($x - 13057.6$)	x^2	$y = (y - \bar{y})$ ($y - 23595.4$)	y^2	xy
04/05	12011	21161.44	-1046.6	1095371.56	-2433.95	5924117.47	2547373.12
05/06	11514	19363.47	-1543.6	2382700.96	-4231.92	17909155.35	6532393.25
06/07	13127	2361.03	69.4	4816.36	-534.36	285541.67	-37084.65
07/08	13367	24647.02	309.4	95728.36	1051.63	110592.45	325373.7
08/09	15269	29743.99	2211.4	4890289.96	6148.61	37815380.34	13597031.73
	$\Sigma x = 65288$	$\Sigma y = 117977$		$\Sigma x^2 = 8468907.2$		$\Sigma y^2 = 63030116.28$	$\Sigma xy = 22965087.15$

Here, $N = 5$

$$\bar{x} = \frac{\sum x}{N} = \frac{65288}{5} = 13057.6$$

$$\bar{y} = \frac{\sum y}{N} = \frac{117977}{5} = 23595.4$$

We have,

$$\sum x^2 = 8468907.2$$

$$\sum y^2 = 63030116.28$$

$$\sum xy = 22965087.15$$

Calculation of correlation coefficient (r) :

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{22965087.15}{\sqrt{8468907.2} \sqrt{63030116.28}} = \frac{22965087.15}{23104030.07} = 0.993$$

or $r = 0.993$ $r^2 = 0.986$

Appendix A – 3

NABIL

Correlation between short term financing and Current Assets

In million Rs.

F/Y	Short term financing (X)	Current Assets (Y)	$x = (x - \bar{x})$ ($x - 9780.8$)	x^2	$y = (y - \bar{y})$ ($y - 14216.88$)	y^2	xy
04/05	7595.2	11329	-2185.6	4776847.36	-2887.88	8339850.89	6311750.53
05/06	6500.3	8819.2	-3280.5	10761680.25	-5397.68	29134949.38	17707089.24
06/07	9042	13857.2	-738.8	545825.44	-359.38	129153.98	268809.94
07/08	12140.8	16956.6	2360	5569600	2739.72	7506065.67	6465739.2
08/09	13625.7	20122.1	3844.9	14783256.01	5905.22	34871623.25	22704980.38
	$\Sigma x = 48904$	$\Sigma y = 71084.4$		$\Sigma x^2 = 36437209.06$		$\Sigma y^2 = 79981643.17$	$\Sigma xy = 53455069.29$

Here, $N = 5$

$$\bar{x} = \frac{\sum x}{N} = \frac{48904}{5} = 9780.8$$

$$\bar{y} = \frac{\sum y}{N} = \frac{71084.4}{5} = 14216.88$$

We have,

$$\sum x^2 = 36437209.06$$

$$\sum y^2 = 79981643.17$$

$$\sum xy = 53455069.29$$

Calculation of correlation coefficient (r) :

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{53455069.29}{\sqrt{36437209.06} \sqrt{79981643.17}} = \frac{53455069.29}{53984329.7} = 0.9901$$

or $r = 0.9901$ $r^2 = 0.9802$

Appendix A – 4

SCBNL

Correlation between short term financing and Current Assets

In million Rs.

F/Y	Short term financing (X)	Current Assets (Y)	$x = (x - \bar{x})$ ($x - 13057.6$)	x^2	$y = (y - \bar{y})$ ($y - 20746.6$)	y^2	xy
04/05	12011	19283	-1046.6	1095371.56	-1643.6	2142124.96	1531803.76
05/06	11514	17733	-1543.6	2382700.96	-3013.6	9081784.96	4651792.96
06/07	13127	20624	69.4	4816.36	-122.6	15030.76	-8508.44
07/08	13367	22543	309.4	95728.36	1796.4	3227052.96	555806.16
08/09	15269	23550	2211.4	4890289.96	2803.4	7859051.56	6199438.76
	$\Sigma x = 65288$	$\Sigma y = 103733$		$\Sigma x^2 = 8468907.2$		$\Sigma y^2 = 22325045.2$	$\Sigma xy = 12930333.2$

Here, $N = 5$

$$\bar{x} = \frac{\sum x}{N} = \frac{65288}{5} = 13057.6$$

$$\bar{y} = \frac{\sum y}{N} = \frac{103733}{5} = 20746.6$$

We have,

$$\sum x^2 = 8468907.2$$

$$\sum y^2 = 22325045.2$$

$$\sum xy = 12930333.2$$

Calculation of correlation coefficient (r) :

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{12930333.2}{\sqrt{8468907.2} \sqrt{22325045.2}} = \frac{12930333.2}{13750226.76} = 0.9403$$

or $r = 0.9403$ $r^2 = 0.8841$

Appendix A – 5

NABIL

Correlation between short term financing and Investment

In million Rs.

F/Y	Short term financing (X)	Investment (Y)	$x = (x - \bar{x})$ $(x - 9780.8)$	x^2	$y = (y - \bar{y})$ $(y - 7033.32)$	y^2	xy
04/05	7595.2	5835.9	-2185.6	4776847.36	-1197.42	1433814.66	2617081.15
05/06	6500.3	4267.2	-3280.5	10761680.25	-2766.12	7651419.85	9074256.66
06/07	9042	6178.5	-738.8	545825.44	-854.82	730717.23	631541.01
07/08	12140.8	8945.3	2360	5569600	1911.98	3655667.52	4512272.8
08/09	13625.7	9939.7	3844.9	14783256.01	2906.38	8447044.7	11174740.46
	$\Sigma x = 48904$	$\Sigma y = 35166.6$		$\Sigma x^2 = 36437209.06$		$\Sigma y^2 = 21918663.96$	$\Sigma xy = 28009892.08$

Here, N = 5

$$\bar{x} = \frac{\sum x}{N} = \frac{48904}{5} = 9780.8$$

$$\bar{y} = \frac{\sum y}{N} = \frac{35166.6}{5} = 7033.32$$

We have,

$$\sum x^2 = 36437209.06$$

$$\sum y^2 = 21918663.96$$

$$\sum xy = 28009892.08$$

Calculation of correlation coefficient (r) :

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{28009892.08}{\sqrt{36437209.06} \sqrt{21918663.96}} = \frac{28009892.08}{28260483.74} = 0.9911$$

or $r = 0.9911$ $r^2 = 0.9822$

Appendix A – 6

SCBNL

Correlation between short term financing and Investment

In million Rs.

F/Y	Short term financing (X)	Investment (Y)	$x = (x - \bar{x})$ ($x - 13057.6$)	x^2	$y = (y - \bar{y})$ ($y - 12271.2$)	y^2	xy
04/05	12011	11360	-1046.6	1095371.56	-911.2	830285.44	953661.92
05/06	11514	9702	-1543.6	2382700.96	-2569.2	6600788.64	3965817.12
06/07	13127	12838	69.4	4816.36	566.8	321262.44	39335.92
07/08	13367	13553	309.4	95728.36	1281.8	1643011.24	396588.92
08/09	15269	13903	2211.4	4890289.96	1631.8	2662771.24	3608562.52
	$\Sigma x = 65288$	$\Sigma y = 61356$		$\Sigma x^2 = 8468907.2$		$\Sigma y^2 = 12058118.8$	$\Sigma xy = 8963966.4$

Here, $N = 5$

$$\bar{x} = \frac{\sum x}{N} = \frac{65288}{5} = 13057.6$$

$$\bar{y} = \frac{\sum y}{N} = \frac{61356}{5} = 12271.2$$

We have,

$$\sum x^2 = 8468907.2$$

$$\sum y^2 = 12058118.8$$

$$\sum xy = 8963966.4$$

Calculation of correlation coefficient (r) :

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} = \frac{8963966.4}{\sqrt{8468907.2} \sqrt{12058118.8}} = \frac{8963966.4}{10105399.01} = 0.887$$

or $r = 0.887$ $r^2 = 0.786$

Appendix A – 7

NABIL

The Trend Value of Total Deposits of NABIL

(Rs. In thousands)

F/Y	Total Deposits (y)	x	x ²	xy
04/05	14119032	1	1	14119032
05/06	14586608	2	4	29173216
06/07	19347399	3	9	58042197
07/08	23342285	4	16	93369140
08/09	31915047	5	25	159575235
	$\Sigma y = 103310371$	$\Sigma x = 15$	$\Sigma x^2 = 55$	$\Sigma xy = 345278820$

Here, $n = 5$

Let the trend line be,

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

the two normal equation are

$$\Sigma y = na + b \Sigma x \dots\dots\dots (ii)$$

$$\Sigma xy = a \Sigma x + b \Sigma x^2 \dots\dots\dots (iii)$$

Putting value of $n, \Sigma y, \Sigma x, \Sigma xy$ in equation (ii) and (iii)

$$103310371 = 5a + 15b \dots\dots\dots(iv)$$

$$345278820 = 15a + 55b \dots\dots\dots(iv)$$

Multiplying eqⁿ (iv) by 3 and deducting (v) from (iv)

$$30993113 = 15a + 45b$$

$$354278820 = 15a + 55b$$

$$\begin{array}{r} - \quad - \quad - \\ \hline -44347707 = -10b \end{array}$$

$$\therefore b = 4434770.7$$

Putting value of b in eqⁿ (iv)

$$103310371 = 5a + 15 \times 4434770.7$$

$$\therefore a = 7357762.1$$

$$\therefore y = 7357762.1 + 4434770.7x$$

For year 2009/2010, $y = a + bx \longrightarrow 7357762.1 + 4434770.7 \times 6$

$$y = \text{Rs. } 33966386.3 \text{ thousand}$$

Other trend values have been calculated accordingly.

(Rs. In thousands)

Year (t)	x = t	y (Projected deposit) = a+bx
2009/2010	6	33966386.3
2010/2011	7	38401157

2011/2012	8	42835927.7
2012/2013	9	47270698.4
2013/2014	10	51705469.1

Appendix A – 8

SCBNL

The Trend Value of Total Deposits of SCBNL

(Rs. In thousands)

F/Y	Total Deposits (y)	x	x ²	xy
04/05	21161442	1	1	21161442
05/06	19363470	2	4	39726940
06/07	23061032	3	9	69183096
07/08	24647021	4	16	98588084
08/09	29743999	5	25	148719995
	$\Sigma y = 117976964$	$\Sigma x = 15$	$\Sigma x^2 = 55$	$\Sigma xy = 376379557$

Here, $n = 5$

Let the trend line be,

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

the two normal equation are

$$\Sigma y = na + b \Sigma x \dots\dots\dots (ii)$$

$$\Sigma xy = a \Sigma x + b \Sigma x^2 \dots\dots\dots (iii)$$

Putting value of $n, \Sigma y, \Sigma x, \Sigma xy$ in equation (ii) and (iii)

$$117976964 = 5a + 15b \dots\dots\dots (iv)$$

$$376379557 = 15a + 55b \dots\dots\dots(iv)$$

Multiplying eqⁿ (iv) by 3 and deducting (v) from (iv)

$$353930892 = 15a + 45b$$

$$376379557 = 15a + 55b$$

$$\begin{array}{r} - \quad - \quad - \\ \hline -22448665 = -10b \end{array}$$

$$\therefore b = 2244866.5$$

Putting value of b in eqⁿ (iv)

$$117976964 = 5a + 15 \times 2244866.5$$

$$\therefore a = 16860793.3$$

$$\therefore y = 16860793.3 + 2244866.5x$$

For year 2009/2010, $y = a + bx \longrightarrow 16860793.3 + 2244866.5 \times 6$

$$y = \text{Rs. } 30329992.3 \text{ thousand}$$

Other trend values have been calculated accordingly.

(Rs. In thousands)

Year (t)	x = t	y (Projected deposit) = a+bx
2009/2010	6	30329992.3
2010/2011	7	32574858.8
2011/2012	8	34819725.3
2012/2013	9	37064591.8

2013/2014	10	39309458.3
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Appendix A – 9

NABIL

The Trend Value of Loan and Advances of NABIL

(Rs. In thousands)

F/Y	Total Loan and Advances (y)	x	x ²	xy
04/05	8189993	1	1	8189993
05/06	10586170	2	4	21172340
06/07	12922543	3	9	38767629
07/08	15545779	4	16	62183116
08/09	21365053	5	25	106825265
	$\Sigma y = 68609538$	$\Sigma x = 15$	$\Sigma x^2 = 55$	$\Sigma xy = 237138343$

Here, $n = 5$

Let the trend line be,

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

the two normal equation are

$$\Sigma y = na + b \Sigma x \dots\dots\dots (ii)$$

$$\Sigma xy = a \Sigma x + b \Sigma x^2 \dots\dots\dots (iii)$$

Putting value of n, Σy , Σx , Σxy in equation (ii) and (iii)

$$68609538 = 5a + 15b \dots\dots\dots(iv)$$

$$237138343 = 15a + 55b \dots\dots\dots(iv)$$

Multiplying eqⁿ (iv) by 3 and deducting (v) from (iv)

$$205828614 = 15a + 45b$$

$$237138343 = 15a + 55b$$

$$\begin{array}{r} - \quad - \quad - \\ \hline -31309728 = -10b \end{array}$$

$$\therefore b = 3130972.8$$

Putting value of b in eqⁿ (iv)

$$68609538 = 5a + 15 \times 3130972.8$$

$$\therefore a = 4328989.2$$

$$\therefore y = 4328989.2 + 3130972.8x$$

For year 2009/2010, $y = a + bx \longrightarrow 4328989.2 + 3130972.8 \times 6$

$$y = \text{Rs. } 23114826 \text{ thousand}$$

Other trend values have been calculated accordingly.

(Rs. In thousands)

Year (t)	x = t	y (Projected deposit) = a+bx
2009/2010	6	23114826
2010/2011	7	26245798.8
2011/2012	8	29376771.6

2012/2013	9	32507744.4
2013/2014	10	35638717.2

Appendix A – 10

SCBNL

The Trend Value of Loan and Advances of NABIL

(Rs. In thousands)

F/Y	Total Loan and Advances (y)	x	x ²	xy
04/05	6410242	1	1	6410242
05/06	8143208	2	4	16286416
06/07	8935418	3	9	26826254
07/08	10502637	4	16	42010548
08/09	13718597	5	25	68592985
	$\Sigma y = 47710102$	$\Sigma x = 15$	$\Sigma x^2 = 55$	$\Sigma xy = 160106445$

Here, $n = 5$

Let the trend line be,

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

the two normal equation are

$$\Sigma y = na + b \Sigma x \dots\dots\dots (ii)$$

$$\Sigma xy = a \Sigma x + b \Sigma x^2 \dots\dots\dots (iii)$$

Putting value of n, Σy , Σx , Σxy in equation (ii) and (iii)

$$47710102 = 5a + 15b \dots\dots\dots(iv)$$

$$160106445 = 15a + 55b \dots\dots\dots(iv)$$

Multiplying eqⁿ (iv) by 3 and deducting (v) from (iv)

$$1413130306 = 15a + 45b$$

$$160106445 = 15a + 55b$$

$$\begin{array}{r} - \quad - \quad - \\ \hline -16976139 = -10b \end{array}$$

$$\therefore b = 1697613.9$$

Putting value of b in eqⁿ (iv)

$$47710102 = 5a + 15 \times 1697613.9$$

$$\therefore a = 4449178.7$$

$$\therefore y = 4449178.7 + 1697613.9x$$

For year 2009/2010, $y = a + bx \longrightarrow 4449178.7 + 1697613.9 \times 6$

$$y = \text{Rs. } 14634862.1 \text{ thousand}$$

Other trend values have been calculated accordingly.

(Rs. In thousands)

Year (t)	x = t	y (Projected deposit) = a+bx
2009/2010	6	14634862.1
2010/2011	7	16332476
2011/2012	8	18030089.9

2012/2013	9	19727703.8
2013/2014	10	

Appendix-11

NABIL

The Trend Value of short term financing of BABIL

(Rs. in thousand)

F/Y	Short term financing (y)	x	x ²	
04/05	7595200	1	1	
05/06	6500300	2	4	
06/07	9042000	3	9	
07/08	12140800	4	16	
08/09	13625700	5	25	
	$\sum y = 48904000$	$\sum x = 15$	$\sum x^2 = 55$	\sum

Here, n = 5

Let the trend line be,

$y = a + bx$ (i)

The two normal equation are

$$\sum y = na + b\sum x \dots\dots\dots (ii)$$

$$\sum xy = a\sum x + b\sum x^2 \dots\dots\dots(iii)$$

Putting value of n, $\sum y$, $\sum x$, $\sum xy$ in equation (ii) & (iii)

$$48904000 = 5a + 15b \dots\dots\dots(iv)$$

$$164413500 = 15a + 55b \dots\dots\dots(v)$$

Multiplying eqⁿ (iv) by 3 and deducting (v) from (iv)

$$146712000 = 15a + 45b$$

$$164413500 = 15a + 55b$$

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

$$-17701500 = -10b$$

$$\therefore b = 1770150$$

Putting value of b in eqⁿ (iv)

$$48904000 = 5a + 15 * 1770150$$

$$\therefore a = 4470350$$

$$\therefore y = 4470350 + 1770150x$$

For year 2008/2009, $y = a + bx \rightarrow 4470350 + 1770150x6$

$$x = 6$$

$$y = \text{Rs. } 15091250 \text{ thousand}$$

Other trend values have been calculated according.

(Rs. in thousand)

year (t)	x = t	y(projected loan & advance) = a + bx
2009/2010	6	15091250
2010/2011	7	16861400
2011/2012	8	18631550
2012/2013	9	20401700
2013/2014	10	22171850

Appendix-12

SCBNL

The Trend Value of short term financing of SCBNL

(Rs. in thousand)

F/Y	Short term financing (y)	x	x ²	
04/05	12011000	1	1	
05/06	11514000	2	4	
06/07	13127000	3	9	
07/08	13367000	4	16	
08/09	15269000	5	25	
	$\sum y = 65288000$	$\sum x = 15$	$\sum x^2 = 55$	\sum

Here, n=5

Let the trend line be,

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

The two normal equation are

$$\sum y = na + b\sum x \dots\dots\dots (ii)$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots(iii)$$

Putting value of n, $\sum y$, $\sum x$, $\sum xy$ in equation (ii) & (iii)

$$65288000=5a+15b \dots\dots\dots(iv)$$

$$20423000=15a+55b \dots\dots\dots(v)$$

Multiplying eqⁿ (iv) by 3 and deducting (v) from (iv)

$$195864000 = 15a + 45b$$

$$204233000 = 15a + 55b$$

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

$$-8369000 = -10b$$

$$\therefore b=836900$$

Putting value of b in eqⁿ (iv)

$$48904000 = 5a+15 *836900$$

$$\therefore a = 10546900$$

$$\therefore y=10546900+836900x$$

For year 2008/2009, $y = a + bx \rightarrow 10546900+836900x6$

$$x = 6$$

$$y = \text{Rs. } 15568300 \text{ thousand}$$

Other trend values have been calculated according.

(Rs. in thousand)

year (t)	x=t	y(projected loan & advance) =a+bx
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2009/2010	6	15568300
2010/2011	7	16405200
2011/2012	8	17242100
2012/2013	9	18079000
2013/2014	10	18915900

Appendix-13

Test of Hypothesis on short term financing to total assets ratio between NABIL and SCBNL.

Calculate of X, Y and S^2 , Assuming $x = x - \bar{x}$, $y = y - \bar{y}$

NABIL				
X	$x = (x - \bar{x})$	x^2	y	
45.3	4.34	18.83	50.8	
37.8	-3.16	9.98	52.8	
40.5	-0.46	0.21	50.9	
44.5	3.54	12.53	46.7	
36.7	-4.26	18.15	45.8	
$\sum X = 204.8$	$\sum x = 0$	$\sum x^2 = 59.7$	$\sum Y = 247$	

$$\bar{x} = \frac{\sum X}{N} = \frac{204.8}{5} = 40.96$$

$$\bar{y} = \frac{\sum Y}{N} = \frac{247}{5} = 49.4$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} \left[\left\{ \sum x^2 - \frac{(\sum x)^2}{n} + \sum y^2 - \frac{(\sum y)^2}{n} \right\} \right]$$

$$S^2 = \frac{1}{5+5-2} \left[\left\{ 59.7 - \frac{(0)^2}{5} + 36.02 - \frac{(0)^2}{5} \right\} \right]$$

$$= \frac{1}{8} [95.72]$$

or $S^2 = 11.69$

Appendix-14

Test of Hypothesis on short term financing to total assets ration between NABIL and SCBNL.

Calculate of X, Y and S^2 , Assuming $x = x - \bar{x}$, $y = y - \bar{y}$

NABIL			
X	$x = (x - \bar{x})$	x^2	y
53.79	5.83	33.99	56.76
44.56	-3.4	11.56	59.46
46.73	-1.23	1.51	56.92
52.01	4.05	16.4	54.23
42.69	-5.27	27.77	51.33

$\sum X = 239.83$	$\sum x = 0.02$	$\sum x^2 = 91.23$	$\sum Y = 278.7$
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$$\bar{x} = \frac{\sum X}{N} = \frac{239.83}{5} = 47.96$$

$$\bar{y} = \frac{\sum Y}{N} = \frac{278.7}{5} = 55.74$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} \left[\left\{ \sum x^2 - \frac{(\sum x)^2}{n} + \sum y^2 - \frac{(\sum y)^2}{n} \right\} \right]$$

$$S^2 = \frac{1}{5+5-2} \left[\left\{ 91.23 - \frac{(-0.02)^2}{5} + 38 - \frac{(0)^2}{5} \right\} \right]$$

$$= \frac{1}{8} [129.299]$$

or $S^2 = 16.15$

Appendix-15

Test of Hypothesis on short term financing to total assets ratio between NABIL and SCBNL.

Calculate of X, Y and S^2 , Assuming $x = x - \bar{x}$, $y = y - \bar{y}$

NABIL				
X	$x = (x - \bar{x})$	x^2	y	
6	-0.41	0.1518	4.48	
8	1.59	2.5281	4.66	
7.02	0.61	0.3721	5.02	
5.55	-0.86	0.7396	5.17	

5.48	-0.93	0.8649	5.36	
$\sum X = 6.41$	$\sum x = 0$	$\sum x^2 = 4.6728$	$\sum Y = 24.69$	

$$\bar{x} = \frac{\sum X}{N} = \frac{32.05}{5} = 6.41$$

$$\bar{y} = \frac{\sum Y}{N} = \frac{24.69}{5} = 4.94$$

$$S^2 = \frac{1}{n_1 + n_2 - 2} \left[\left\{ \sum x^2 - \frac{(\sum x)^2}{n} + \sum y^2 - \frac{(\sum y)^2}{n} \right\} \right]$$

$$S^2 = \frac{1}{5+5-2} \left[\left\{ 4.6728 - \frac{(0)^2}{5} + 0.5257 - \frac{(-0.)^2}{5} \right\} \right]$$

$$= \frac{1}{8} [5.1985]$$

$$\text{or } S^2 = 0.6498$$